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চতুর্থ পঞ্চবার্ষিক পরিকল্পনা শীর্ষক সেমিনারে  
উপস্থাপিত প্রবন্ধাবলী

বাংলাদেশ অর্থনীতি সমিতি  
অর্থনীতি বিভাগ, ঢাকা বিশ্ববিদ্যালয়, ঢাকা-১০০০

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This volume contains articles presented at the seminar on Fourth Five Year Plan held at Dhaka on October, 5 & 6, 1990.

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আব্দুল্লাহ ফারুক\*

পরিকল্পিত অর্থনীতির গুরুত্ব বৃদ্ধি

দ্বিতীয় মহাযুদ্ধ দুটি ঘটনা ত্বরান্বিত করে-প্রথমতঃ সাম্রাজ্যবাদী শক্তিগুলির নীতি পরিবর্তন। তারা প্রত্যক্ষভাবে কলোনী রাখা সম্ভব নয় বিবেচনায়, নিজেদের স্বার্থ মতে এশিয়া ও আফ্রিকায় ছোট ছোট পরস্পরের প্রতিযোগী, এমন কতকগুলি দুর্বল রাষ্ট্র সৃষ্টি করে তাদের স্বাধীনতা দিয়ে দিল। দ্বিতীয়তঃ এইসব ছোট অথচ নব্য স্বাধীন রাষ্ট্র যাতে সাম্রাজ্যবাদী শক্তির দ্রুত উন্নয়নের দ্বারা রাজনৈতিক ভাবে প্রভাবিত না হয়, এবং কি করে নিজেদের প্রাচীন অর্থনৈতিক ব্যবস্থার মধ্যে থেকেও সমাজতন্ত্রের আকর্ষণতা উপেক্ষা করতে পারে, সে জন্য তাদের পরিকল্পিত অর্থনীতি ব্যবহার করতে বলা হলো। এ বিষয়ে একটা অর্থনৈতিক সাহিত্য এবং প্রশিক্ষণ ব্যবস্থাও গড়ে উঠলো।

ইতিপূর্বে যুদ্ধে বিদ্ধস্থ ক্ষুদ্র স্বাধীন রাষ্ট্রগুলিকে পরস্পারিক সাহায্যের জন্য কমনওয়েলথ ভুক্ত দেশগুলির জন্য কলম্বো পরিকল্পনা নামক একটি প্রস্তাব কার্য্যকরী হয়, ১৯৫০ সনের দিকে। এ জন্য সকল সদস্য রাষ্ট্রকেই সাহায্য প্রস্তাব একটি পরিকল্পনার আকারে প্রতুত করতে বলা হলো, যাতে তা বাছাই এবং অগ্রগণ্যতা বিবেচনার জন্য ব্যবহার করা যায়। তখন থেকেই পাকিস্তান রাষ্ট্রের অংগ হিসাবে বাংলাদেশে সরকার উন্নয়ণ প্রস্তাব পরিকল্পনার আকারে প্রস্তুত করতে শুরু করে। এরপর প্রেসিডেন্ট ট্রুম্যানের “পয়েন্ট ফোর” কর্মসূচীর অংগ হিসাবে অনুন্নত দেশ গুলিকে নিয়মিত অর্থনৈতিক সাহায্য দেওয়া শুরু হয়, যেহেতু এ ধরনের সাহায্য দেবার ক্ষমতা মার্কিন যুক্তরাষ্ট্রের ছিল এবং খাদ্য শস্য, শিল্প উপকরণ ইত্যাদি সাহায্য হিসাবে পাবার জন্য আগ্রহী অনেক দরিদ্র এবং অকমিউনিষ্ট রাষ্ট্রও তখন ছিল। এর পরের ইতিহাস আমরা সকলেই জানি। সবচেয়ে গণ্যমান্য অর্থনীতিবিদদের বলা হলো, পরিকল্পনা বোর্ড, কমিশন ইত্যাদির মাধ্যমে উন্নয়ণ পরিকল্পনা প্রস্তুতে সাহায্য করতে, তা পর্যালোচনা করতে এবং এই শাঞ্জে গবেষণা আর প্রশিক্ষণের ব্যবস্থা করতে। একই ভাবে যখন দেখা গেল যে অনুন্নত দেশগুলিতে সে কালের “ম্যালথাস্ তত্ত্ব” নতুন ভাবে কার্য্যকর হচ্ছে, যা উন্নত বিশ্বে কখনো ঘটেনি, তখন অর্থনীতিবিদদের ডেমোগ্রাফী চর্চা করতে উৎসাহ দেওয়া হয়। সবই বৈদেশিক সাহায্যের কল্যাণেই সম্ভব হয়েছিল।

\* ঢাকা বিশ্ববিদ্যালয়

বাংলাদেশে নিয়মিত পঞ্চশালা পরিকল্পনার শুরু হয় পাকিস্তান আমলে (১৯৫৬-৬০) প্রথম পঞ্চবার্ষিক পরিকল্পনার মাধ্যমে। এই পরিকল্পনার জন্য অর্থ এবং রাজনৈতিক সমর্থন কোনটাই পাওয়া যায়নি। কিন্তু এই পরিকল্পনার আলোচনা কালেই বাঙালী অর্থনীতিবিদরা সর্ব প্রথম তাঁদের বিখ্যাত “দুই অর্থনীতি” তত্ত্বের ঘোষণা দেন এবং পাকিস্তান সরকার এই দাবী তৎক্ষণাৎ বাতিল করে দেয়। অর্থাৎ বাংলাদেশের প্রকৃত স্বাধীনতা যুদ্ধ এই সময়ে কিছু দুঃসাহসী অর্থনীতিবিদদের দ্বারাই শুরু হয়, ঢাকা বিশ্ববিদ্যালয়ের ফজলুল হক হলের অডিটোরিয়ামে অর্থনৈতিক সমিতির এক বিশেষ সম্মেলনে। পরে সামরিক শাসন আমলে দ্বিতীয় পরিকল্পনা কালে (১৯৬০-৬৫) বাংলাদেশ অঞ্চলের উন্নয়নের হার সর্ব প্রথম বাৎসরিক ৫% হারে বৃদ্ধি পায়। এই পরিকল্পনার উদ্দেশ্য শতকরা ৬২ ভাগ অর্জিত হয়, প্রধানতঃ বেসরকারী সেক্টরের অতিরিক্ত বিনিয়োগের ফলে। এই পরিকল্পনায় শতকরা ৩২ শতাংশ বিনিয়োগ বৈদেশিক সাহায্যের দ্বারা হয়েছিল। এই সময় সারের উপর শতকরা ৫০ শতাংশ তত্ত্বী প্রচলণ করা হয় আধুনিক কৃষি ব্যবস্থাকে জনপ্রিয় করার জন্য।

পাকিস্তানের তৃতীয় পরিকল্পনা (১৯৬৫-৭০) পাক ভারত যুদ্ধ এবং রাজনৈতিক অসন্তোষের কারণে তার উদ্দেশ্য সমূহ বাস্তবায়ণ করতে পারেনি, যদিও এই পরিকল্পনায় পূর্ব-পাকিস্তানে ১১৩৯ কোটি টাকা বিনিয়োগ হয়েছিল সরকারী খাতে। এই সময়ে পূর্ব-পাকিস্তানের আয়ের গড় বাৎসরিক উন্নয়ন হার ছিল শতকরা ৩.৯। এই পরিকল্পনার বেসরকারী খাত পশ্চিম পাকিস্তানের তুলনায় ভাল করেনি। স্বাধীনতার পর প্রথম পরিকল্পনা হয় (১৯৭৩-৭৮) সম্পূর্ণ এক নতুন প্রেক্ষাপটে এবং নতুন উদ্দেশ্য নিয়ে। এই পরিকল্পনার জন্য যে টাকা বরাদ্দ হয়েছিল, তা খরচ করা হলেও এর উদ্দেশ্য সমূহ বাস্তবায়িত হয়নি, যার কারণ অর্থনীতিবিদরা সকলেই জানেন। এরপর আবার সামরিক শাসনকাল শুরু হয়। প্রথমতঃ একটি দ্বিবার্ষিক পরিকল্পনা গ্রহণ করা হয় যাতে অসমাপ্ত পরিকল্পনাগুলির সংখ্যা হ্রাস করে নতুন ভাবে দ্বিতীয় পরিকল্পনা প্রস্তুত করা যায়। বাংলাদেশের দ্বিতীয় পরিকল্পনার সময় থেকেই (১৯৮০-৮৫) বৈদেশিক সাহায্যের উপর নির্ভরশীলতা ক্রমশঃ বৃদ্ধি পায় এবং সরকারি খাতে অর্থ ব্যয়ও বিপুল ভাবে বৃদ্ধি পায়। পরিকল্পনার বরাদ্দকৃত অর্থ দেশীয় এবং বৈদেশিক কোন খাত থেকেই সম্পূর্ণ সংগ্রহ করা সম্ভব হয়নি এবং পরে পরিকল্পনার আকার ছোট করা হয়। এই সময়ে বাৎসরিক আয় বৃদ্ধির হার ছিল গড়ে ৩.৮ ভাগ, যদিও প্রথমে পরিকল্পনার লক্ষ্য ছিল বার্ষিক ৫.৪ ভাগ প্রবৃদ্ধি। একই ভাবে তৃতীয় পঞ্চবার্ষিক পরিকল্পনার কালে (১৯৮৫-৯০) মোট ৩৮৬০০ কোটি টাকা ব্যয় করার প্রস্তাব ছিল। কিন্তু সরকারী খাতে প্রস্তাবিত ২৫০০০ কোটি টাকার মধ্যে মাত্র ১৭১২৯ কোটি টাকার বিনিয়োগ সম্ভব হয় এবং বেসরকারী খাতে ১৩৬০০ কোটি টাকার লক্ষ্য থাকলেও প্রকৃত প্রস্তাবে বিনিয়োগ হয়েছে ৯৮৮২ কোটি টাকা। তৃতীয় পরিকল্পনায়, বিনিয়োগ সরকারী খাতে দৃশ্যতঃ শতকরা ৮৬ ভাগ এসেছে বিশেষী সাহায্য থেকে। তৃতীয় পরিকল্পনার প্রবৃদ্ধি লক্ষ্য ছিল শতকরা ৫.৪ হারে, এবং অর্জিত হয়েছে শতকরা ৩.৮১ হারে। প্রস্তাবিত চতুর্থ পরিকল্পনার বিনিয়োগ লক্ষ্য ধরা হয়েছে মোট ৬৭২৩০ কোটি টাকা, যার মধ্যে ৪০৭৩০ কোটি টাকা বিনিয়োগ হবে সরকারী খাতে এবং মোট বাৎসরিক প্রবৃদ্ধির হার হবে ৫%।

## ফারুক : বিভিন্ন পরিকল্পনা

### অতীত পরিকল্পনার বিশ্লেষণ

দেখা যাচ্ছে, বাংলাদেশের অর্থনীতিতে বিগত ৪০ বৎসরে যথেষ্ট বিনিয়োগ হয়েছে এবং জাতির আয়ের প্রবৃদ্ধিও মোটামুটি জনসংখ্যা বৃদ্ধির হারের চেয়ে কিছু বেশীই হয়েছে। ১৯৬০-৬১ সনে সরকারী খাতে বিনিয়োগ হয়েছিল চলতি মূল্যে, ৪৫.৬ কোটি টাকা, সেক্ষেত্রে ১৯৭৩-৭৪ সনে বিনিয়োগ হয় ৪৬৩.৮ কোটি টাকা, ১৯৮৮-৮৯ সনে ঐ বিনিয়োগের পরিমাণ দাঁড়ায় ৫৩১৫.৬ কোটি টাকা। স্থির মূল্যের হিসাবেও ১৯৬০-৬১ সনের তুলনায় একই পরিমাণ প্রকৃত মূল্যের বিনিয়োগ ১৯৮৮-৮৯ সনের চলতি মুদ্রায় হওয়ার কথা প্রায় ২০ গুণ বেশী, অর্থাৎ প্রায় ৯০০ কোটি টাকা, অর্থাৎ ঐ বৎসরে সরকারী খাতে বিনিয়োগ হয়েছে দেখা যায় ৫ হাজার কোটি টাকার উপরে। তাই দেখা যাচ্ছে, বিদেশী সাহায্য যে ভাবেই আসুক, যে আকারেই আসুক, বাংলাদেশে টাকার অংকে সরকার প্রচুর বিনিয়োগ করছেন, কিন্তু জাতীয় আয়ের প্রবৃদ্ধি যা হচ্ছে, সেটা উল্লেখযোগ্য কিছু নয়, কিন্তু শহরের মানুষের ধনী হবার প্রক্রিয়া পরিকল্পনার ফলে ভাল ভাবেই কাজ করেছে। পল্লীতে উপকাঠামোও কিছু কিছু হচ্ছে। তৃতীয় পরিকল্পনা কালে কৃষি আর শিল্পে এক ধরনের বন্ধাত্ব আসলেও গৃহ নির্মাণ আর সেবার সেক্টরে প্রবৃদ্ধি হয়েছে যথেষ্ট, যা সরকারী তথ্য থেকেই বোঝা যায় এবং চোখেও দেখা যায়।

### পরিকল্পিত অর্থনীতিতে শূভংকরের ফাঁকি

এতক্ষণ পরিকল্পনার ইতিহাস সংক্ষেপে আলোচনা করিলাম। এবার দেখা যাক, আসলে অর্থনৈতিক উন্নয়নের জন্য আমাদের প্রয়োজন কি, আর-পরিকল্পনারগুলি তা দিতে পারছে কিনা? না পারলে এই ব্যবস্থায় যৌক্তিকতটা কোথায়? একটা বিষয় পরিষ্কার যে পরিকল্পনার টার্গেট দিয়ে যদি উন্নয়ন সাধিত হতো, তা হলে এতদিনে দেশের অবস্থা আরো ভাল হতো। বাজার কেন্দ্রীক অর্থনীতিতে আসল পরিকল্পনাকার হলো মানুষের উৎপাদন ক্ষমতা এবং দেশের প্রাকৃতিক সম্পদের ব্যবহার। এতে পুঁজি বা বৈদেশিক পুঁজি একটা উপাদান বটে। কিন্তু তা একমাত্র শর্ত নয়। আমাদের দেশে প্রাথমিক শিক্ষা বৃদ্ধি পায়নি, মানুষ তার পরিশ্রমের ফসল উপভোগ করতে পারছে না আইন শৃংখলা ভাল নয় বলে এবং সরকারী সেক্টরে কর্মক্ষমতা এবং সততার একান্ত অভাব। এগুলির অবস্থা ভিন্ন হলে 'বাজার অর্থনীতি' যা অর্জন করতে পারতো, আমাদের ক্ষেত্রে তা করা সম্ভব হচ্ছেনা। সরকারী খাতে যে সব কাজ করা হচ্ছে, তার বাজার মূল্য খরচের বা বিনিয়োগের তুলনায় অনেক কম। তাই উন্নয়ন এদেশের যেটুকু হয়েছে, সে জন্য পরিকল্পনার কোন প্রয়োজন ছিল কিনা সেটা বিতর্কের বিষয়। পরিকল্পনার একটি প্রধান অংশ হলো আনুসাংগিক নীতির বাস্তবায়ন। এই নীতির বাস্তবায়ন হলো সঞ্চয় বৃদ্ধি, উপকাঠামো বৃদ্ধি আর আইনের শাসন। যাঁরা প্রকল্প রচনা করেন এবং তার বাস্তবায়ন করেন, তাঁরাও ব্যবসায়ীদের মতোই ব্যক্তিগত লাভ খোঁজেন, এটা ধরে নেওয়া যায়। আর বিদেশী ঋণ এখন সেই ব্যক্তিগত লাভের পথ পরিষ্কার করে দিয়েছে। সরকার মিতব্যয়ী হতে চাইলেও তাঁরা তা করতে পারছেন না। কারণ শহরের যে শিক্ষিত, অর্ধশিক্ষিত ক্ষমতাবান শ্রেণী গজিয়ে উঠেছে, তারা দরকার মতো আন্দোলন করিয়ে দেয়, হরতাল করিয়ে দেয়, যা কোন

সরকারই উপেক্ষা করতে পারেন না, তাদের কথা মেনে নিতে হয়, যদি না বিদেশীরাও বা সাহায্য দাতারাও তাতে আপত্তি দেন। কয়েকটা উদাহরণ দিয়ে আমার বক্তব্য পরিষ্কার করবো।

এই দেশে এমন অর্থনীতিবিদ আছে, যারা বহু আগেই বলেছিল, অনাবশ্যক ভতুর্কী কমাও, প্রাথমিক শিক্ষা বাধ্যতামূলক কর, সরকারী খাতের অপব্যয় কমাও। তখন সরকার তা কার্যকর করতে পারেন নি। কিন্তু যখন বিশ্ব ব্যাংক বললো, সারের ভতুর্কী হ্রাস কর, প্রত্যক্ষ কর বাড়ান, যখন জাতিসংঘ বললো, প্রাথমিক শিক্ষা বাধ্যতামূলক কর, তখন সরকার কথাটা শুনলেন এবং সেই মত আইন পাশ করলেন। এতে অনেক দেরী হয়ে গিয়েছে। আমরা উচ্চ শিক্ষার মান নিচু করে ফেলেছি। কেউ পরীক্ষা পিচাতে বললে আমরা তা মেনে নিয়েছি, ফলে সেশন জট হয়েছে। কোথাও অপ্রয়োজনীয় কর্মচারী ছাটাই করতে চাইলে, আন্দোলনের দ্বারা তা বানচাল করা হয়েছে। কোথাও চাকুরি খালি হলে সেখানে যাদের ক্ষমতা আছে, তারা নিজেদের অযোগ্য আত্মীয় বন্ধুদের নিয়োগ করেছেন। ফলে অফিস আছে, কিন্তু সেখানে কর্মক্ষমতা নাই। কারখানা আছে, কিন্তু সেখানে লাভ জনক উৎপাদন নাই। পরিকল্পনার টাকা খরচ করে লাভ কি, যদি হাসপাতাল থাকে, কিন্তু সেখানে ডাক্তার পাওয়া যায় না, ঔষধ পাওয়া যায় না? স্কুলের ঘর বানিয়ে লাভ কি, যদি সেখানে শিক্ষকের কাজ করার যোগ্যতা বা উৎসাহ না থাকে এবং পিতামাতা তাদের সন্তানদের সেখানে পাঠাতে উৎসাহিত না হয়?

তা হলে ব্যাপারটা দাঁড়াচ্ছে কি? পরিকল্পনার কতকগুলি প্রকল্প বাস্তবায়ন করে দিলেই তাতে উৎপাদন বৃদ্ধি হবে না, যদিও সরকার তাঁদের কাজ ঠিকই সম্পন্ন করেছেন। চতুর্থ পরিকল্পনার আকার আরো বড় এবং এতে সেবা মূলক কাজ অধিক পরিমাণে করার ব্যবস্থা হয়েছে, যার সাথে বাজার অর্থনীতির প্রত্যক্ষ সম্পর্ক কম। দরিদ্র মানুষের উৎপাদন ক্ষমতা এবং জীবন ধারণের মান বৃদ্ধি করা অবশ্যই একটা ভাল কাজ, যা বৈদেশিক সাহায্য ছাড়া বাস্তবায়ন করা সম্ভব নয়। এ বিষয়ে দেশের সাধারণ মানুষের যে করণীয় কাজ রয়েছে, নেতাদের সং ভাবে দেশের স্বার্থে কাজ করার যে দায়িত্ব রয়েছে, সেগুলি হলো আমাদের উন্নয়নের দেহের জন্য প্রয়োজনীয় রক্ত মাংস। এ গুলির ব্যবস্থা যদি না হয়, আইন অমান্যকারীর যদি শাস্তি না হয়, মানুষ যদি নিরাপদে তাদের উৎপাদন, সঞ্চয় এবং বিক্রয়ের কাজ না করতে পারে, তা হলে অতীতেও যেমন হয়েছে, তেমনি ভবিষ্যতেও টাকা খরচ হবে কিন্তু প্রত্যাশিত প্রবৃদ্ধি ঘটবে না। প্রত্যেক পরিকল্পনার শেষে একই যুক্তি দেখিয়ে বলা হয়, কেন টার্গেট অর্জন করা যায়নি, এতে আসল কথাটা প্রকাশ পায় না।

আমাদের মনে রাখতে হবে যে ইংরেজ শাসন কালে এদেশের কোন পরিকল্পনা কমিশন ছিল না। কিন্তু তখনো সরকার প্রাথমিক বা উচ্চ শিক্ষায় অর্থ ব্যয় করেছেন, তখনো দেশে ব্রিজ, রাস্তা ঘাট প্রস্তুত হয়েছে, সরকারী বাড়ী ঘর নির্মান হয়েছে। তখন সে সব জিনিষের মেরামত হতো, হেফাজত হতো, কেউ বেআইনী কাজ করলে তার শাস্তি হতো। তখন ইংরেজ রাজার স্বার্থের ক্ষেত্রেই শুধু সাম্রাজ্যবাদী স্বার্থকে অগ্রাধিকার দেওয়া হতো। সেই ব্যবস্থাতেও প্রবৃদ্ধি ঘটেছে, যদিও একালের মত তার সুক্ষ পরিমাপ ছিল না। তখন ভারত বর্ষের মধ্যে বাংলাদেশ

### ফারুক : বিভিন্ন পরিকল্পনা

একটা সেরা উন্নয়নশীল প্রদেশ ছিল, তার প্রমান আছে। সেই ব্যবস্থা ছিল প্রধানতঃ সাধারণ মানুষের নিজের ভাল নিজে করার প্রবনতা সৃষ্টিকারী ব্যবস্থা। ইংরেজ আমলে বহুসেবা মূলক প্রতিষ্ঠান বেসরকারী ভাবে পরিচালিত হতো, সরকার এতে শর্তপূরণ সাপেক্ষে কিছু চাঁদা দিতেন। সেই অবস্থার পরিবর্তন হয়ে আমরা এখন সম্পূর্ণ সরকারের উপর নির্ভরশীল হয়ে পড়েছি। তাই সব শেষে বলবো, আমরা পরিকল্পনাও ভাল করছি এবং দেশের কিছু উন্নতিও হয়েছে, বিগত পরিকল্পনাগুলির বাস্তবায়নের কালে। কিন্তু এই উন্নতির কতটা মানুষ তার নিজস্ব চেষ্টা এবং লাভের আশায় করেছে, তা হিসাব করলে দেখা যাবে, পরিকল্পনার যুগের আগেও যে হারে উন্নয়ন হয়েছে এখনো বাংলাদেশে তাই হচ্ছে। এ জন্য যদি বাহাদুরী কিছুকে দিতে হয়, তা বিশ্বের উৎপাদন ক্ষেত্রে উন্নত কৌশল আবিষ্কারকে এবং আন্তর্জাতিক উন্নয়ন মূলক সংস্থাগুলিকে। বিদেশী সাহায্যটা ছলে-বলে-কৌশলে ব্যক্তিগত আয় হিসাবে বেসরকারী মালিকানায চলে যাচ্ছে এবং বাড়ী ঘর বা সার্ভিস ইন্ডাস্ট্রি খোলায় তা বিনিয়োগ হচ্ছে। তথ্যে যদি তাই দেখা যায়, তবে ভবিষ্যতে আমাদের শক্ত নীতি বা 'হার্ড পলিসি ডিসিশন' নিতে হবে। পরিকল্পনার কাছে আমরা এমন কিছু আশা করছি, যা পরিকল্পনার বা তার তৌতিক বাস্তবায়নের দ্বারা পাওয়ার সম্ভাবনা নাই। এই কারণেই বলবো, উন্নত দেশগুলিতে যে সময় বেশী উন্নয়ন হয়েছে, তখন বাজার অর্থনীতিই কাজ করেছে, সরকারের কোন পরিকল্পনা কমিশন তাদের ছিল না। পরিকল্পনা করা ভাল, কিন্তু পলিসির বাস্তবায়ন ছাড়া পরিকল্পনা করা আর না করায় পার্থক্য অতি সামান্যই।

## খসড়া পরিকল্পনায় সমাজ প্রেক্ষিত

সনৎ কুমার সাহা\*

চতুর্থ পঞ্চবার্ষিকী পরিকল্পনার খসড়ায় সমাজ প্রেক্ষিত কিভাবে এসেছে, তা বোঝার আগে তার প্রস্তাবিত লক্ষ্যগুলো দেখে নেওয়া দরকার। মূল লক্ষ্যগুলো চিহ্নিত হয়েছে এভাবে :

(১) জাতীয় আয়ের শতকরা পাঁচ ভাগ হারে প্রবৃদ্ধি, (২) দারিদ্র্য বিমোচন ও মানব সম্পদ বিকাশের মাধ্যমে কর্মসংস্থান বৃদ্ধি এবং (৩) অধিকতর স্বনির্ভরতা অর্জন।

এই লক্ষ্যগুলো সামনে রেখে যে বিষয়গুলোর ওপর বিশেষ দৃষ্টি দেবার কথা বলা হয়েছে, সেগুলো হলো, (ক) মানবসম্পদ উন্নয়নে অধিকতর বিনিয়োগ, (খ) গরীব ও পচাওপদ জনগোষ্ঠীর কর্মশক্তি কাজে লাগিয়ে তাদের আর্থ-সামাজিক বিকাশের ওপর সবিশেষ গুরুত্ব আরোপ, (গ) বিভিন্ন খাতে উৎপাদন বৃদ্ধি প্রক্রিয়ার সঙ্গে সমাজ কাঠামো পরিবর্তনের ধারায় ভারসাম্যহীনতা দূরীকরণ ও অব্যাহত গতিশীল সামঞ্জস্য বিধানের লক্ষ্যে উদ্যোগ গ্রহণ, (ঘ) অধিকতর উৎপাদনশীল খাতসমূহ চিহ্নিতকরণ ও সর্বোচ্চ প্রবৃদ্ধি অর্জনে সর্বাত্মক প্রয়াস, (ঙ) উদ্যোগে নেতৃত্বদানে সক্ষম জনগোষ্ঠীকে সর্বপ্রকারে প্ররোচিত ও উৎসাহ দান, (চ) প্রযুক্তি উন্নয়ন, উৎপাদনে দক্ষতা বৃদ্ধি ও অপচয় রোধ, (ছ) দক্ষ প্রশাসন ও ব্যবস্থাপনার মাধ্যমে সরকারী প্রকল্প সমূহের উৎপাদনশীলতা ও কার্যকারিতা বৃদ্ধি এবং গ্রামাঞ্চলে জনগণকে সঙ্গে নিয়ে কাজে অগ্রসর হওয়ার সাংগঠনিক ব্যবস্থার পরিমার্জন ও পরিপুষ্টি সাধন, (জ) নারীশ্রম ও মেধার যথোপযুক্ত স্বীকৃতি দান এবং উন্নয়ন প্রক্রিয়ায় তাদের ফলপ্রসূ প্রয়োগের বাস্তব ক্ষেত্র নির্মাণ।

একথা জোরের সঙ্গে বলতে চাওয়া হয়েছে যে প্রস্তাবিত পরিকল্পনা শুধু উৎপাদন বাড়ানোর দিকেই নজর দেয়নি, সেই সঙ্গে সমষ্টি উন্নয়নকেও তার অঙ্গীভূত করে নিয়েছে। এবং সেই লক্ষ্যে সমাজে যারা দুর্বলতার জনগোষ্ঠীর অংশ, তাদের কথা ভাবা হয়েছে সবচেয়ে বেশী। ভূমিহীন ও ছোট চাষী, কুটির শিল্পে নিয়োজিত গ্রামীণ কারিগর এবং শহর ও পল্লী অঞ্চলে অপ্রাতিষ্ঠানিক খাতে কর্মরত নারীপুরুষ নির্বিশেষে শ্রমজীবী মানুষকে এদের আওতায় পড়ে। মোট জনসংখ্যার তারা শতকরা প্রায় পঞ্চাশ ভাগ।

সমষ্টি উন্নয়নকে উৎপাদন বৃদ্ধির সঙ্গে একত্রে এগিয়ে নিয়ে যাবার লক্ষ্যে পরিকল্পনা কমিশন সার্বিক ভারসাম্যের এক প্রায়োগিক বিজ্ঞানের আশ্রয় নিয়েছেন। উৎপাদন খাত সমূহকে সেখানে উপকরণ উৎপাদন সম্পর্ক সঙ্কেতের ছকে বৃত্তি ও বিভক্ত অনুযায়ী মোট জনসম্পদের বিভিন্ন অংশের সঙ্গে সমন্বিত করে উভয়ের পারস্পরিক পরিপুষ্টি ও সমৃদ্ধির

\* অধ্যাপক, অর্থনীতি বিভাগ, রাজশাহী বিশ্ববিদ্যালয়।

সম্ভাবনার গতিপথকে ধরবার চেষ্টা করা হয়েছে। জনসমষ্টিকে যে দশটি আর্থ-সামাজিক খণ্ডে ভাগ করা হয়েছে, সেগুলো হলো, (১) ভূমিহীন কৃষি শ্রমিক, (২) ১.৫ একর পর্যন্ত জমির অধিকারী ছোট কৃষক, (৩) ১.৫ একর থেকে ৫ একর পর্যন্ত জমির মালিক এবং/অথবা ভাগচাষী মাঝারি কৃষক, (৪) ওইরকম শুধু মালিক মাঝারি কৃষক, (৫) ৫ থেকে ১০ একরের অধিকারী বড় কৃষক (৬) তার চেয়েও বড় কৃষক, (৭) গ্রামীণ অকৃষি প্রাতিষ্ঠানিক খাতে নিয়োজিত সম্পন্ন জনগোষ্ঠী, (৮) গ্রামীণ অপ্রাতিষ্ঠানিক খাতে নিয়োজিত দরিদ্র জনগোষ্ঠী, (৯) অনুরূপ শহরে প্রাতিষ্ঠানিক ও (১০) অপ্রাতিষ্ঠানিক খাত।

পরিকল্পনা কর্তৃপক্ষের দাবি, অন্তোদয়েই তাঁদের অগ্রাধিকার। পরিকল্পনা প্রণয়ন ও প্রকল্প নির্ধারণ প্রক্রিয়াকে তাই নিয়ে যেতে চাওয়া হয়েছে সমাজ দেহের তৃণমূল পর্যায়। জোর পড়েছে গ্রাম, ইউনিয়ন ও উপজিলা ভিত্তিক পরিকল্পনার ওপর। জাতীয় পরিকল্পনায় তাদের সমন্বয়সাধন গুরুত্ব পেয়েছে। এই লক্ষ্যে নীচ থেকে ওপর পর্যন্ত, পরিকল্পনা প্রণয়ন ও বাস্তবায়নের প্রতিটি স্তরে প্রাতিষ্ঠানিক কাঠামো মজবুত ও গতিশীল করা জরুরি হয়ে পড়ে। নিম্নতম স্তর থেকে বিভিন্ন বৃত্তি নির্ভর জনগোষ্ঠীকে সংগঠিত করে প্রাতিষ্ঠানিক কাঠামোর ভেতর দিয়ে তাদের অনুভূত অভাব ও চাহিদার ভিত্তিতে তাদের উন্নয়ন উদ্যোগকে রূপায়িত ও সম্প্রসারিত করার বাস্তব রূপরেখা রচনা তাই সবিশেষ প্রাধান্য পায়। বিকেন্দ্রিত পরিকল্পনা ও জনগণের অংশগ্রহণের মাধ্যমে তা বাস্তবায়নের মাধ্যমে, আশা করা হয়েছে, গ্রাম স্তর থেকে উৎপাদন ও পণ্য চাহিদা বৃদ্ধি পাবে। পরিণামে অভ্যন্তরীণ বাজার ব্যবস্থা আরো জোরদার হবে। জনগণের ক্রয়ক্ষমতা বাড়বে এবং বাজার নির্ভর অর্থনীতি সম্প্রসারিত হবে। গরীব ও দুর্বলতর জনগোষ্ঠীর ক্ষুদ্র সঞ্চয় ভিত্তিক উদ্যোগ জাতীয় অর্থনীতির বিস্তৃত ও সম্প্রসারণ বিন্যাসে ইতিবাচক ভূমিকা রাখবে।

মানব সম্পদ উন্নয়নের ব্যাপারটিকেও মোটামুটি একই দৃষ্টিকোণ থেকে দেখা হয়েছে। বৃহত্তর বাজার ব্যবস্থায় স্বকীয় যোগ্যতায় সংযুক্ত হয়ে কেউ বৈষয়িক উন্নতি করতে চাইলে প্রাথমিকভাবে প্রয়োজন নিজস্ব বৃত্তিতে ও নিজস্ব বৃত্তে তার আরো সক্ষম হয়ে ওঠা। বাস্তবত, তার অর্থ হলো, আপন নিয়োজিত শ্রমের উৎপাদিকা শক্তি বাড়ানো। মানব সম্পদ উন্নয়নের লক্ষ্যে এই বিষয়টিই প্রধান হয়ে উঠেছে। গ্রামীণ অর্থনীতির শাখা প্রশাখায় বিভিন্ন বৃত্তির মানুষ প্রাপ্ত উৎপাদন কৌশল যাতে নিজ নিজ ক্ষেত্রে হাতে কলমে দক্ষতার সঙ্গে ব্যবহার করতে পারে, ঝোঁকটা দেওয়া হয়েছে মূলতঃ তার ওপর। নতুন জ্ঞান আহরণ তুলনায় গৌণ থেকে গেছে। ফলে উপজেলা থেকে গ্রাম পর্যন্ত সামাজিক ও প্রশাসনিক কাঠামোয় উৎপাদনমুখী কর্মকাণ্ডের যে প্রাতিষ্ঠানিক জাল বিস্তৃত, তাকেই এনে করা হয়েছে মানব সম্পদ উন্নয়ন প্রক্রিয়া পরিচালনার প্রধান মাধ্যম। বাজারের সঙ্গে যোগসূত্র রচনার দায়িত্বও অনেকাংশে তার ওপরই বর্তায়। গ্রামীণ অর্থনীতিতে উৎপাদনের কৌশল আয়ত্ব করার জন্যে, আপন আপন অবস্থায় উৎপাদন ও উপকরণের বাজারের সঙ্গে যোগাযোগ স্থাপনের জন্যে অথবা আপন আপন অবস্থার আইনগত দিকটি বুঝে ওঠার জন্যে অন্ততঃ পক্ষে প্রাথমিক শিক্ষার স্তরটুকু পার হওয়া

দরকার। চতুর্থ পঞ্চবার্ষিকী পরিকল্পনায় শিক্ষাখাতে বরাদ্দ মোট অর্থের শতকরা প্রায় পঞ্চাশ ভাগ প্রাথমিক শিক্ষাখাতে শিক্ষার জন্য ধরা হয়েছে।

দরিদ্র ও দুর্বলতর জনগোষ্ঠীর ভাগ্যোন্নয়নের লক্ষ্যে সরকারী উদ্যোগের সমান্তরাল বেসরকারী সংস্থাসমূহ আজ দেশের প্রত্যন্ত অঞ্চলেও প্রবলভাবে উপস্থিত। চতুর্থ পঞ্চবার্ষিকী পরিকল্পনায় উন্নয়নের চালিকাশক্তি হিসেবে তাদের ভূমিকাকেও স্বীকার করে নেওয়া হয়েছে। প্রকৃতপক্ষে তাদের ওপর নির্ভরতা সরকারী উদ্যোগের প্রায় সমতুল্যই। এখানেও লক্ষ্যণীয় গ্রামীণ উদ্যোগকে সম্প্রসারমান বাজার অর্থনীতির সঙ্গে সংযুক্ত করার সচেতন প্রয়াস।

বাজারব্যবস্থাকে শক্তিশালী করা সরকারী রাজস্ব, মুদ্রা, বাণিজ্য ও শিল্পনীতিরও মুখ্য উদ্দেশ্য। প্রাতিষ্ঠানিক ঋণী ব্যবস্থাকে এমনভাবে পরিচালিত করার কথা বলা হয়েছে যাতে ব্যক্তিগত উদ্যোগ থেকে উদ্বৃত্ত সৃষ্টি উৎসাহিত হয়। এই উদ্বৃত্ত যাতে আবার উৎপাদনে ফিরে আসে বাণিজ্য ও শিল্পনীতি সেইদিকে দৃষ্টি রেখেই রচনা করা হয়েছে। রাজস্ব নীতিরও লক্ষ্য বেসরকারী খাতে দক্ষতার ভিত্তিতে উৎপাদন, সঞ্চয় ও বিনিয়োগ বৃদ্ধির পথ সুগম করে তোলায় যথাসম্ভব সহায়তা দান, কার্যত তার অর্থ দাঁড়ায় কর রেহাই বা কর ছাড়। বেসরকারী উদ্যোগে মুনাফা অর্জনে কোন বাধা সৃষ্টি নয়, বরং তাতে অব্যাহত প্রশ্রয় দানই যে সরকারের অভিপ্রায়, এ বিষয়টি নানাভাবে বুঝিয়ে দেবার প্রয়াস চতুর্থ পঞ্চবার্ষিকী পরিকল্পনার খসড়ায় পাতায় পাতায় অত্যন্ত স্পষ্টভাবে ধরা পড়ে। বিপরীতে সরকারী খাতের গুরুত্ব ক্রমহাসমান। সেখানে নতুন উৎপাদন ক্ষমতা সৃষ্টির কোন উদ্যোগ চোখে পড়ে না। বিদ্যমান উৎপাদন ক্ষমতার পূর্ণ সদ্ব্যবহারের দিকেই লক্ষ্য এবং দক্ষতার অভাব যে সেখানে প্রকট, একথাটিও গোপন রাখা হয় না। ক্রমশঃ যে এইসব উদ্যোগ অর্থনীতির পুনর্বিন্যাস ঘটিয়ে বেসরকারী ব্যক্তিগত খাতে পরিচালিত করা হবে এমন ইংগিত খুব অস্পষ্ট থাকে না। তবু সরকারী উদ্যোগ যে বিশেষ বিশেষ খাতে অনুমোদিত হয়, তার কারণ সেই সব খাতে বেসরকারী উদ্যোক্তরা এখনও বিনিয়োগে প্রস্তুত নয়, অথবা সেই সব উদ্যোগ বেসরকারী খাতে বিনিয়োগের অবকাঠামোকেই মজবুত করে। দারিদ্র্য নিরসন প্রকল্পসমূহে সরাসরি ব্যয়বহন সরকারের ওপর বর্তায়। তার ফলে বাজারের বিস্তার ঘটলে তা থেকে লাভবান হতে পারে বেসরকারী উদ্যোগ। আসলে সরকারের এই প্রস্তাবিত পরিকল্পনার প্রধান উদ্দেশ্য হলো বাজার ব্যবস্থার বিস্তার ঘটিয়ে বেসরকারী ব্যক্তিগত খাতে বিনিয়োগকে সর্বতোভাবে উৎসাহিত করা। সে কারণে সর্বোত্তম পরিবেশ রচনা করার অর্থ হলো সর্বোচ্চ ব্যক্তিগত মুনাফা লাভ নিশ্চিত করার পথে সব রকম বাধা দূর করা।

অবশ্য পরিকল্পনার রূপকাররা ব্যক্তিগত মুনাফা লাভের সুযোগ সৃষ্টির সঙ্গে সঙ্গে গণকল্যাণের আদর্শের কথাও মনে রাখতে বলেছেন। তাঁরা সতর্ক করে দেন, যে ব্যক্তিস্বার্থকে তাঁরা সর্বপ্রকারে উৎসাহিত করছেন, তা যেন সংকীর্ণ ব্যক্তিস্বার্থে পরিণত না হয়। তাঁদের মতে সম্প্রসারিত ব্যক্তিস্বার্থই চতুর্থ পঞ্চবার্ষিকী পরিকল্পনা বাস্তবায়নের কার্যকর দর্শন। এই দর্শনের মূল কথা হলো, একজন সমাজের কাছ থেকে যতটুকু আদায় করবে, নিজে সমাজকে তার

চেয়ে বেশী দেবে। বিশেষ করে সমাজে যারা নেতৃস্থানীয়, তাঁরা যেমন রাজনীতিবিদ, সমাজপতি, বুদ্ধিজীবী, প্রশাসক, পরিকল্পনাবিদ বা ব্যবসায়ী। এই দর্শনে উদ্বুদ্ধ হলে দেশের মানুষ মহা মহা কাণ্ড ঘটাতে থাকবেন। সঞ্চয়, বিনিয়োগ, সাম্য ও সমৃদ্ধির জোয়ার বইবে, কারণ, ধনী ব্যক্তির স্বতঃপ্রবৃত্ত হয়ে কৃষ্ণ সাধন করবেন, খাজনা চোষার সহজ পথ ছেড়ে জনকল্যাণের স্বার্থে উৎপাদনে টাকা ঢালবেন, সমাজে নীচের দিকের শতকরা পঞ্চাশ ভাগ মানুষের উপকারে আসে, এমনসব খাতে বেশী বেশী বিনিয়োগ করবেন, শ্রমিক খাটিয়ে তাদের ভাল মজুরি দেবেন। যাঁরা সরকারী কর্মকর্তা তাঁরা হবেন সৎ, পরার্থপর ও গরীব মানুষের অভাব অভিযোগ দূর করায় নিবেদিত প্রাণ। তাঁরা গণ জাগরণ ও গণ উদ্যোগ পরিকল্পনায় উৎসাহ জোগাবেন, সরকারী খাতে অপচয় রোধ করবেন ও দুর্বলতর জনগোষ্ঠীর কল্যাণের দিকে সদা সর্বদা লক্ষ্য রাখবেন। রাজনৈতিক নেতৃত্ব দেশের সামাজিক রাজনৈতিক বিকাশের নিজস্ব প্রকৃতির সঙ্গে সঙ্গতি রেখে অর্থনৈতিক উন্নয়নে আরো যত্নবান হবেন। এছাড়াও সম্প্রসারিত ব্যক্তিস্বার্থের আদর্শের প্রেরণায় ব্যক্তি তার স্বভাবের দুর্বলতা জয় করে সমাজের কল্যাণের কথা বেশী করে ভাবতে সক্ষম হবে, সব রকম সামাজিক বাধা ভেঙ্গে চুরে দরিদ্র পশ্চাৎপদ জনগণের উন্নতি ঘটাতে উদ্বাহ নৃত্যে ঝাঁপিয়ে পড়বে এবং সর্বসাধারণের অগ্রগতির লক্ষ্যে বিজ্ঞান ও প্রযুক্তিকে ভালভাবে কাজে লাগাবার উপযুক্ত ক্ষমতা অর্জন করবে। এইভাবে ব্যক্তিস্বার্থের অভিনব সম্প্রসারিত বিকাশ শুধু যে জাতীয় জীবনে সব মুশকিল আশান করবে, তাই নয়, অব্যাহত উন্নতির এক নির্দ্বন্দ্বিক পথ রচনা করে দরিদ্র দুর্বল অবোধ জনগোষ্ঠীকে তা পার্থিব সুখ ও সমৃদ্ধির এক অত্যাশ্চর্য সপ্তম স্বর্গে হিড়হিড় করে টেনে তুলে নিয়ে যাবে।

চতুর্থ পঞ্চবার্ষিকী পরিকল্পনার খসড়ায় জনগণের সার্বিক উন্নয়নের লক্ষ্যে সদৃষ্টিয়ার যে ফুলঝুরি নির্বিকার সারল্যে দেদার ছড়ানো হয়েছে, তার একটা আভাস মাত্র এখানে দেবার চেষ্টা করা হলো। এখন প্রশ্ন হলো, এই সদৃষ্টিয়ার কতটা সৎ, কতটুকুই বা বাস্তবসম্মত। যেসব পদ্ধতি প্রকরণের কথা পরিকল্পনায় উচ্চারিত, তা কি প্রকৃত, না কল্পনাপ্রসূত? তাদের কার্যকারিতাই বা কতখানি? হিসাব-নিকাশের পরিসংখ্যান কি পরিকল্পনার প্রত্যাশার সঙ্গে সঙ্গতিপূর্ণ, না কি তারা ভিন্ন কোন লক্ষ্যের ইংগিতবাহী? অন্তোদয় বা সর্বোদয়ের যে অভিপ্রায় বার বার ব্যক্ত করা হয়েছে, তা কি সত্যই অর্থবহ, না কি কেবল কথার কথা, যা কঠিন বাস্তবতাকে আড়াল করার এক মনোরম ছলনা মাত্র? প্রস্তাবিত উন্নয়ন কৌশল কি প্রত্যাশিত লক্ষ্যের অভিমুখী, না কি তা অন্যকোন অভিসন্ধির মোহিনী আচ্ছাদন? আমরা প্রধানত খসড়া পরিকল্পনাকে অবলম্বন করেই এইসব প্রশ্নের যতটা সম্ভব মুখোমুখি হবার চেষ্টা করি। তবে তার আগে বলা প্রয়োজন, বিদ্বৎসমাজে উন্নয়ন সংক্রান্ত চিন্তাতাবনায যে কথাগুলো ইদানীং বেশ চালু, খসড়া পরিকল্পনায় সেগুলো চমৎকার দক্ষতার সঙ্গে সাজিয়ে গুছিয়ে সামনে তুলে ধরা হয়েছে। দেশী-বিদেশী বিশেষ বিশেষ মহলের বাহবা কুড়োনোই যদি তার একমাত্র উদ্দেশ্য না হয়ে থাকে, তা হলেই তা নিয়ে আলোচনা কোন সংগত অর্থ পায়। অন্যথায় সবটাই পশুশ্রম।

খসড়া পরিকল্পনায় গুরুত্বই সার্বিক তারসাম্যের এক প্রায়োগিক বিন্যাসের ছাঁচে ফেলে যে আমাদের উন্নয়নের পরিকল্পিত উদ্যোগের গতিপ্রকৃতি হকে নেওয়া হয়েছে, এই কথাটি

জানিয়ে দেওয়া হয়। যাঁরা এই বিন্যাসের ধারণার সঙ্গে পরিচিত নন, তাঁরা কিন্তু প্রথমেই হোঁচট খান। পরবর্তীতে উপায় ও লক্ষ্যমাত্রার পরিসংখ্যানে কোথাও খটকা লাগলেও সাহস করে মুখ ফুটে কিছু বলতে ভরসা পান না। কারণ, কর্তব্যাক্রিয়া অবজ্ঞার হাসি হেসে বলতে পারেন, সব ঠিক আছে। ছাঁচে ফেলে অঙ্ক কষে দেখ। প্রশ্ন কিন্তু করা যায় ওই ছাঁচটি নিয়েই। প্রথমত, সার্বিক ভারসাম্যের শর্তাবলী এখানে কিছুই পূরণ হয় না। দ্বিতীয়ত উৎপাদনের উপকরণ সমূহের প্রাপ্তি ও প্রয়োগে অনিশ্চয়তা এত বিশাল, যে কাগুজে অনুশীলন শেষ পর্যন্ত কতটা কার্যকর হতে পারে সে বিষয়ে আগে থেকে কিছুই ঠিক ঠিক বলা যায় না। তৃতীয় পঞ্চবার্ষিকী পরিকল্পনায় এ জাতীয় অনুশীলন প্রক্রিয়া চালু থাকা সত্ত্বেও বিনিয়োগের বাস্তব পরিমাণ লক্ষ্যমাত্রা থেকে প্রায় তিরিশ ভাগ কম এবং তা বৈদেশিক সাহায্যের পরিমাণ প্রত্যাশিত মাত্রা ছাড়িয়ে যাওয়া সত্ত্বেও। প্রবৃদ্ধির হারও থেকে গেছে শতকরা ৫.৪০ ভাগ লক্ষ্য মাত্রার যথেষ্ট নীচে, শতকরা ৩.৮১ ভাগ। এই রকম ঘটেছে আগের পরিকল্পনাগুলোর বেলাতেও। তৃতীয়তঃ প্রযুক্তি নির্বাচন যদি অনড় না হয় এবং পরিকল্পনাকাররাও তেমনটি মনে করেন না। প্রকৃতপক্ষে বাংলাদেশের মত একটি তরল অস্থিতিশীল অর্থনীতির বাস্তবতায় তেমনটি মনে করা সমীচীনও নয় – তাহলে উৎপাদনে উপকরণের অনুপাত বারবার বদলে যাবার সম্ভাবনা প্রবল। সে ক্ষেত্রে অব্যাহত সাধারণ ভারসাম্যের ধারণাটাও অচল হয়ে পড়ার আশংকা। জোরটা বরং বেশী পড়া উচিত প্রাপ্তিযোগ্য সহায়-সম্বলের সঙ্গে অগ্রাধিকার প্রাপ্ত ক্ষেত্রগুলোর প্রয়োজনের মাত্রার সামঞ্জস্য বিধানের ওপর। সেখানে পরিকল্পনায় সুনির্দিষ্ট পথ বাছাই-এর ব্যাপারটি বড় হয়ে দেখা দেয়। সার্বিক ভারসাম্যের বিন্যাস কার্যকর হলে সে দায়িত্ব ওই বিন্যাসের ওপরই পড়ে। পরিকল্পনাকারের ভালমন্দ বিবেচনার কোন প্রশ্ন সেখানে ওঠে না। এমন পরিস্থিতিতে পরিকল্পনার হিসাব-নিকাশের ব্যাপারটাই বড় হয়ে দেখা দেয় আলাদা করে। সামাজিক অগ্রাধিকার চিহ্নিত করার কোন সুযোগই থাকে না। আয় ও সম্পদের সামাজিক বিলি ব্যবস্থা ওই সার্বিক-ভারসাম্য বিন্যাসের নিশ্চতন পরিণাম ফল বলে গণ্য হতে পারে মাত্র। পরিকল্পনাকারের এক শূন্য মস্তিষ্কের সাক্ষীগোপাল হওয়া ছাড়া আর অন্য কোন ভূমিকা গুরুত্ব পায় না।

অবশ্য উৎপাদন-উপকরণের বিস্তারিত বিন্যাস যে নিরর্থক, এমন মনে করার কোন কারণ নেই। বিভিন্ন উৎপাদন খাতের পারস্পরিক সম্বন্ধ এবং জনশক্তির বিভিন্ন খন্ডে আয় ও সম্পদের পরিচালন প্রক্রিয়া তাতে নিঃসন্দেহে স্পষ্ট করে ধরা পড়ে। পরিকল্পনার কারিগরদের কাছে এইসব তথ্য-তথ্যই, নীতি নির্দেশকে নয়-অতিশয় জরুরি। সেদিক থেকে আমাদের জনসম্পদকে দশটি খন্ডে ভাগ করে ওই বিন্যাসে জুড়ে দেওয়া নিশ্চিতভাবে একটি সংগত পদক্ষেপ, কোথায় কাকে কাজে লাগালে বেশী ফল মিলতে পারে, সহায় সম্বল কোথায় কিতাবে ঢাললে কাঙ্ক্ষিত লক্ষ্যে পৌছন সহজ হতে পারে, তার একটা কার্যকর অনুশীলন আমরা ওই বিভাজনের সাহায্যে আরো ভালভাবে করতে পারি। অনুমান করা বোধ হয় অনুচিত হবে না, যে আমাদের পরিকল্পনা প্রণেতারা সহায় সম্বলের হিসাব নিকাশ করে লক্ষ্যমাত্রা নির্ধারণের আগে এমন অনুশীলন অতি নিষ্ঠার সঙ্গে সম্পন্ন করেছেন। কিন্তু সংশয় জাগে, যখন

তাদের ঘোষিত উদ্দেশ্যকে প্রদত্ত পরিসংখ্যানের সঙ্গে মিলিয়ে দেখতে যাই। উদাহরণ স্বরূপ ১.১, ১.২ ও ২.৮ নং সারণি একত্রে খুঁটিয়ে দেখলে এই সংশয়ের বিষয়টি কিছুটা বোঝা সহজ হবে। চতুর্থ ঋাবার্ষিকী পরিকল্পনায় প্রস্তাবিত কর্মস্থান বৃদ্ধির লক্ষ্যমাত্রা ধরা হয়েছে শতকরা ২১.৭২ ভাগ। এটা ১৯৮৯-৯০-এর প্রকৃত কর্মসংস্থান অবস্থার ওপর, তৃতীয় পঞ্চবার্ষিকী পরিকল্পনা শেষে যা প্রস্তাবিত ছিল, তার ওপর নয়। তবু এই লক্ষ্যমাত্রা তৃতীয় পঞ্চবার্ষিকী পরিকল্পনাকালে প্রত্যাশিত বৃদ্ধির চেয়ে ঢের কম প্রকৃত বৃদ্ধি শতকরা ২০.৩৪ ভাগের চেয়ে এমন কিছু বেশী নয়। কৃষিতেও বৃদ্ধির হার কমাতেই চাওয়া হয়েছে। শতকরা ১০.৩১ থেকে শতকরা ৯.২৬ ভাগ। অবস্থা আরো খারাপ স্বাস্থ্য শিক্ষা ইত্যাদি খাত এবং বাণিজ্য ও অন্যান্য সেবামূলক খাতে। পাশাপাশি জাতীয় আয় বৃদ্ধির লক্ষ্যমাত্রা ধরা হয়েছে বার্ষিক শতকরা পাঁচ ভাগ, পাঁচ বছরের হিসেব করলে দাঁড়ায় মোট শতকরা ২৭.৬২ ভাগ। কর্ম সংস্থান বৃদ্ধির হারে প্রস্তাবিত লক্ষ্যমাত্রার জাতীয় আয় বৃদ্ধির হারে প্রস্তাবিত লক্ষ্যমাত্রার চেয়ে উল্লেখযোগ্যভাবে কম। তাহলে ব্যাপারটা কি দাঁড়ায়? শ্রম নিবিড় উৎপাদন কৌশল কেবল ঘোষণাতেই থাকছে, কর্ম পরিকল্পনায় তা আদৌ প্রতিফলিত হচ্ছে না। যেখানে যেখানে কর্ম সংস্থান দরিদ্র ও দুর্বলতর জনগোষ্ঠীকে অধিক হারে উৎপাদনের মূলধারায় যুক্ত করতে পারে, সেখানে তা আশানুরূপ হারে বাড়ছে না। যেখানে লক্ষ্যণীয় হারে বাড়ছে যেমন গৃহ নির্মাণ, ১৫.৯ থেকে ৯২.২৯ সেখানে আয় বৃদ্ধির সিংহভাগ দখল করে সমাজে সক্ষমতর জনগোষ্ঠী। এসব থেকে যদি কেউ মনে করেন, পরিকল্পনায় সমাজের নিম্নবর্ণের মানুষের উন্নয়নের অঙ্গীকারে উৎপাদন কৌশল ঢেলে সাজাবার কথা কেবলই কপট বাগাড়ম্বর, তা হলে তিনি কি খুব ভুল করবেন?

আমরা আরো লক্ষ্য করি, কৃষিতে অধিকাংশ প্রধান ফসলের দামের চেয়ে মোট উৎপাদন ব্যয় বেশী এবং দাম ব্যয় অনুপাত ক্রমহ্রাসমান (সা ৫-১১)। এও আমরা দেখি যে উৎপাদনে নগদ ব্যয়ের অনুপাত ক্রমবর্ধমান। এটা নিঃসন্দেহে বাজার ব্যবস্থার সম্প্রসারণেরই ফল। কিন্তু তার পরিণামে গরীব কৃষকের অবস্থা কি দাঁড়াচ্ছে? তার টিকে থাকা কি সহজতর হচ্ছে? অবশ্যই নয়, তার নিঃস্বকরণের সুযোগ গ্রামীণ ব্যাংক ও এই জাতীয় 'উন্নয়ন প্রতিষ্ঠান' কেরামতি দেখাবার সুযোগ পায় মাত্র।

পরিকল্পনায় কিন্তু স্বচ্ছ-বিনিয়োগ-উন্নয়ন কর্মকাণ্ডে তথাকথিত প্রথাবহির্ভূত বেসরকারী প্রাতিষ্ঠানিক উদ্যোগকেই সঠিক পন্থা বলে নির্দেশ করা হয়েছে। তার বিকেন্দ্রিত চরিত্র ও জনগণের স্বতঃস্ফূর্ত অংশগ্রহণে প্রাণবান কর্মপ্রয়াসকে মনে করা হয়েছে সমষ্টি উন্নয়নের চিচিংফাঁক জাতীয় যাদুকরী কৌশল। উন্নয়নে জনগণের অংশগ্রহণ অবশ্যই প্রয়োজনীয় পূর্বশর্ত। কিন্তু যেসব প্রতিষ্ঠানকে আদর্শ হিসেবে দাঁড় করানো হয়েছে, তাদের সাফল্যের বিষয়ে উচ্চকণ্ঠ হবার আগে আমাদের চিন্তাভাবনাকে গতিশীল বাস্তবতায় যথোপযুক্তভাবে স্থাপন করা দরকার। প্রথমত ভূমিহীনতা ও নিঃস্বকরণ প্রক্রিয়া যত বাড়তে থাকে, পরিবারের প্রাচীন ধারণাও তত শিথিল হয়ে আসে। তার পরিণামে নেহাত বেঁচে থাকার তগিদেই সংসারে মহিলা শ্রম অধিকতর পল্লভূর্ণ হয়ে উঠতে থাকে। দ্বিতীয়ত ঋণের চাহিদা এসব ক্ষেত্রে অতিমাত্রায় জান্তব প্রয়োজন। এটা উন্নয়নের নয়, উন্নয়নের পূর্ববর্তী স্তর। তৃতীয়তঃ ঋণ পরিশোধে সাফল্যের

হার এখানে অর্থনৈতিক সামর্থ্যের নয়, বরং অতিমাত্রায় দুর্গতিরই লক্ষণ। প্রাচীন মহাজনী কারবারে দুর্বল খাতক বরাবর ঋণপরিশোধে বাধ্য থেকেছে। সেটা তার সক্ষমতার পরিচয় ছিল না। মহাজনী কারবারের আধুনিকায়ন ঐতিহ্য নিষ্ঠার পরিচয় দেয় সত্য, কিন্তু তাতে অর্থনৈতিক মুক্তির ভবিষ্যৎ পথরেখা উন্মোচিত হয় কি না, তা নিশ্চিত করে বলা যায় না। চতুর্থত, এইসব নামী দামী প্রতিষ্ঠানের মাত্রাগত বিস্তার ফল (স্কেল এফেক্ট) কতটাই উৎপাদনের ক্ষেত্র প্রশস্ত না হলে তা খিতিয়ে যেতে বাধ্য। অতীতে কুমিল্লা মডেল ছড়ায়নি, যদিও দীর্ঘদিন উন্নয়ন চিন্তাবিদদের তা একটা ঘোরের মধ্যে রেখেছে। একই লক্ষ্যে নিয়োজিত নতুন বহুরূপী কারবার সমূহের বিষয়ে উচ্ছ্বসিত হবার আগে কথটি মনে রাখা দরকার। পঞ্চমত, সফল প্রতিষ্ঠানগুলোর আওতার বাইরে যাদের জীবনসংগ্রাম, তাদের বেঁচে থাকার প্রাপ্তি ও বঞ্চনার সঙ্গে তুলনায় প্রতিষ্ঠান কেন্দ্রিক জনগোষ্ঠীর সার্বিক অবস্থা কতটা অন্তরকম, তা সুনিশ্চিতভাবে নিরূপণ করা দরকার। এই সঙ্গে প্রাতিষ্ঠানিক বিনিয়োগ ব্যয়ের যথাযথ হিসাবটাও তৈরী করা জরুরি। গোটা দেশে ওই ব্যয় বহনের সামর্থ্য যদি আমাদের থাকে, তবেই তেমন কোন প্রতিষ্ঠানকে জাতীয় ভিত্তিতে উৎসাহিত করা চলে। অন্যথায় সাজিয়ে গুজিয়ে তার প্রদর্শনীর ব্যবস্থা করা চলে মাত্র।

এই প্রসঙ্গে বেসরকারী সংস্থাসমূহ, যারা সাধারণভাবে এন জি ও নামে পরিচিত, তাদের বিষয়টিও খুটিয়ে দেখা দরকার। পরিকল্পনায় তাদের সমান্তরাল উন্নয়ন কর্মকাণ্ডকে বিশেষ গুরুত্ব দেওয়া হয়েছে। কয়েকটি এন জি ও বর্তমানে প্রভূত শক্তিশালী। সমাজকল্যাণ উদ্যোগে কোন কোনটির যে ইতিবাচক ভূমিকা নেই, তাও বলা যায় না। কিন্তু প্রশ্ন হলো, সমূহ কল্যাণে তাদের ওপর কতটা নির্ভর করা চলে? আমরা জানি, বিদেশী সূত্রে অর্থ প্রাপ্তি সফল এন জি ও কর্মকাণ্ডের প্রধান চালিকাশক্তি। সমাজের ভেতর থেকে তাদের সমস্যার বোধ গড়ে ওঠে না। এই সব বোধ বহুলাংশে খণ্ডিত ও আরোপিত। ফলে এন জি ও নির্ভর যৌথ চেতনাও সীমিত, খণ্ডিত ও আরোপিত হয়ে পড়ে। সমাজ বিকাশের কোন প্রবল স্রোত চোখে পড়ে না।

এইসব উদ্যোগের নেতিবাচক দিকটিও উপেক্ষা করা চলে না। অন্ততঃ ল্যাটিন আমেরিকার দেশগুলোর বেদনাদায়ক অভিজ্ঞতা থেকে আমরা কিছুটা সচেতন হতে পারি। বিদেশী অর্থায়নের পশ্চাতে সবসময়ে সবটাই কল্যাণ এনে থাকে না। স্বার্থবুদ্ধিও কাজ করে। সেই স্বার্থ কখনো কখনো বহুজাতিক সংস্থা সমূহের পাতা ফাঁদের গিট ধরে ধরে এগোয়। পরিণামে যে সংঘাত অবশ্যজ্ঞাবী হয়ে পড়ে, তাতে সমগ্র জাতীয় সত্তারই বিপন্ন হয়ে পড়ার আশংকা থাকে। তাছাড়া সদুদ্দেশ্য প্রণোদিত হলেও ভিন্ন আর্থ-সামাজিক ও সাংস্কৃতিক পরিমন্ডল থেকে উদ্ভূত হওয়ায় সমস্যার শণাক্তকরণে ও দিক নির্দেশনায় প্রভূত বিভ্রান্তির সৃষ্টি হওয়াও বিচিত্র নয়। এই বুকিটুকু মেনেও তাদের উৎসাহ দেওয়া চলে, যদি তারা মূল জাতীয় লক্ষ্যের সঙ্গে সংগতিপূর্ণ পরিপূরক উদ্যোগ হয়, এবং যদি তাদের ভূমিকা কেবলমাত্র সহায়কের পর্যায়েই থাকে। বাংলাদেশে কিন্তু আজ তারা প্রধান নিয়ন্তার ভূমিকায় চলে আসতে চাইছে প্রত্যক্ষ যে সরকার দেশ চালায়, তার ভূমিকাই ক্রমশঃ সহায়কের পর্যায়ে নেমে আসছে।

আসলে খসড়া পরিকল্পনার পেছনে যে উদ্দেশ্যটি এক রৈখিকভাবে অব্যাহত কাজ করছে,

তা হলো বাজার ব্যবস্থার শিরায়-শিরায় রক্ত সঞ্চালন করে তার শাখা-প্রশাখা অর্থনীতির প্রত্যন্ত প্রদেশে ছড়িয়ে দিয়ে তার পরিচালন বৃত্তকে বিরতিহীনভাবে সম্প্রসারিত করা। খাদ্য, বস্ত্র, শিক্ষা, স্বাস্থ্য, বাসস্থান ইত্যাদি মৌলিক চাহিদা পূরণের বেলাতেও বাজার ব্যবস্থাকেই কার্যকর মাধ্যম হিসেবে গড়ে তোলার কথা ভাবা হয়েছে। এখানেই একটা স্ব-বিরোধ স্পষ্ট হয়ে ওঠে। আর্থ-সামাজিক অবস্থার বর্তমান পর্যায়ে বাজারের স্বয়ংক্রিয়তার ওপর অধিকতর জোর দিলে তার অন্তর্নিহিত বৈষম্য বাড়বে বই কমবে না। সরকারী হিসেবের ভিত্তিতেই সমাজে আয় বৈষম্য কমবার কোন লক্ষণ নেই। গিনি সহগ ০.৪০ প্রায় এবং সরকারী হিসেব ও সম্পূর্ণ বিশ্বাসযোগ্য নয়। অনেক ক্ষেত্রেই সরকার যা প্রমাণ করতে চায়, তার সঙ্গে সংগতি রেখে নমুনা সংগ্রহ করা হয়, বিভিন্ন গুরুত্বপূর্ণ বিষয়ের সংজ্ঞামানও বাড়ানো কমানো হয় ইচ্ছামত। যেমন, ক্যালরি গ্রহণের প্রয়োজনীয় মাত্রা ২১২২ ধরে প্রমাণ করতে চাওয়া হয় দারিদ্র্যের ক্রমহ্রাসমানতা, যদিও খসড়া পরিকল্পনাতেই উন্নয়নশীল দেশের তুলনীয় মান লক্ষ্য করি ২৩৮৮। এ ধরনের ওপর চালাকিতে অনেককে হয়ত সাময়িকভাবে বোকা বানানো যায়, কিন্তু বাস্তব পরিস্থিতি প্রকৃত উন্নতি কিছু ঘটে না। বৈসম্যের প্রকৃত অবস্থা অন্যান্য অনুশীলন থেকে লক্ষ্য করা যায় আরো প্রকট। প্রকৃত শ্রম মজুরির হার ক্রমাগত নিম্নমুখী ২.৪ সারণিতে চলতি বাজারদামে গত পাঁচ বছরে অভ্যন্তরীণ উৎপাদন দেখি বৃদ্ধি পেয়েছে শতকরা প্রায় ৮৩.৭ ভাগ। নিঃসন্দেহে চমৎকৃত হবার মত। কিন্তু বিশ্ব ব্যাংকের প্রতিবেদনে দেখা যায় এই কালপর্বে গড় মুদ্রাস্ফীতির হার বার্ষিক শতকরা ১১.১। ১৯৮৪-৮৫ বা ১৯৮৯-৯০-এর স্থিরমূল্যে হিসেব করলে উৎপাদন বৃদ্ধির পরিমাণ দাঁড়ায় শতকরা সাড়ে আটের মত (৮৯-৯০-এর স্থির মূল্যে ৮.৪২%)। গড় বার্ষিক প্রকৃত প্রবৃদ্ধির হার তাহলে শতকরা ১.৬৩ মাত্র জনসংখ্যা বৃদ্ধির হারের চেয়ে কম। এর অর্থ প্রকৃত মাথা পিছু আয় হ্রাস। বৈষম্য মান সরকারী পরিসংখ্যান অনুযায়ীই প্রায় অপরিবর্তিত ধরলেও এতে প্রতীয়মান হয় দারিদ্র্যের ক্রমঘনীভবন। এমন পরিস্থিতিতে বাজারের স্বয়ংক্রিয়তার ওপর নির্ভর করে কোন দেশেই দরিদ্র ও দুর্বলতর জনগোষ্ঠীর ভাগ্যোন্নয়ন সম্ভব হয়নি এবং বাংলাদেশে হবে এমন আশা করার কোন কারণ দেখি না। সম্প্রসারিত ব্যক্তি স্বার্থের যে দর্শন খাড়া করা হয়েছে তা যেমন উদ্ভট, তেমনি মনে হয়, দূরভিসন্ধিমূলক। বৈষম্যমূলক সমাজে সব সময়েই সাধারণ মানুষকে বৃহত্তর স্বার্থে আত্মনিয়োগে আহবান জানানো হয়। তারই আড়ালে কায়েমী স্বার্থচক্র নিঃশব্দে নিজেদের সম্পদ ও ক্ষমতা ক্রমাগত বাড়িয়ে চলে। বাংলাদেশেও তার ব্যতিক্রম দেখছি না।

মনে রাখা দরকার, উন্নয়ন পরিকল্পনা শুধুই অর্থনৈতিক ক্রিয়াকর্মের দিক নির্দেশক নয়। রাষ্ট্রীয় ক্ষমতার স্বরূপও তাতে কিছু না কিছু প্রতিফলিত হয়। বাংলাদেশে অস্ত্রের দাপটে যারা রাষ্ট্রীয় ক্ষমতা দখল করে বসে, সমাজের ভেতরে তাদের কোন অর্থনৈতিক ভিত্তি ছিল না। এটা একদিকে তাদের পরনির্ভর করেছে, অন্যদিকে বিকল্প রাজনৈতিক শক্তির সম্ভাব্য ভিত্তিও তারা সুপরিবর্তিতভাবে ধ্বংস করে চলেছে। ভূমিনির্ভর বা স্বাধীন শিল্প নির্ভর সুসংহত কোন শক্তি অবশিষ্ট থাকে না, ভেতর থেকে গড়েও ওঠে না। অর্থবহ গণতন্ত্র দেশ থেকে নির্বাসিত হয়। যা থাকে তা দুর্নীতি ও লুণ্ঠন। শুধু অর্থনৈতিক নয়, প্রশাসনিক ও রাজনৈতিক। সেই সঙ্গে

চলতে থাকে গ্রামে গঞ্জে ঘাটে মাটে অনুগত স্বার্থচক্রের জাল বিস্তার। টাউট শ্রেণীর দৌরাভ্যা বাড়ে। রাষ্ট্রীয় ক্ষমতার সঙ্গে তার যোগ নিবিড় হয়। এদের হাতে যে উদ্বৃত্ত জমে অথবা এদের মাধ্যমে যে উদ্বৃত্ত পরিচালিত হয়, তাকে গুছিয়ে একটা সুশৃংখল ব্যবস্থার ভেতরে আনার মত একটা পরিস্থিতি আজ ক্রমশঃ তৈরী হয়ে উঠেছে। সেই কাজটি করতে চাওয়াই মনে হয় খসড়া চতুর্থ পঞ্চবার্ষিকী পরিকল্পনার অন্তর্নিহিত অভিপ্রায়। সেই লক্ষ্যেই রচিত হয় উপজেলা কর্মকাণ্ড। সেই কারণেই জোর পায় বেসরকারী প্রাতিষ্ঠানিক উন্নয়ন উদ্যোগ। ওই অনুগত স্বার্থচক্রকে কেন্দ্র করেই জোরদার হয়ে উঠতে পারে সম্প্রসারমান বাজার ব্যবস্থা। পরিকল্পনায় বলা হয় গরীব ও দুর্বলতর জনগোষ্ঠীর স্বার্থের কথা। বাস্তবে কিন্তু ওই বিকাশমান প্রভাবশালী চক্রের ওপরই গরীব ও দুর্বলতর জনগোষ্ঠীর স্বার্থের নির্ভরশীল হয়ে পড়ার সম্ভাবনা। সম্প্রসারিত ব্যক্তি-স্বার্থের নামে জনগণকে উদ্বুদ্ধ করতে চাওয়ার পেছনে অন্য কোন মহৎ উদ্দেশ্য কাজ করে বলে মনে হয় না।

এই তথাকথিত উন্নয়ন দর্শনের যৌক্তিক কাঠামো নিরতিশয় দুর্বল। সার্বিক ভারসাম্যের ধারণাগত বিশ্লেষণে তাকে স্থাপন করার চেষ্টা পভ্রশ্রম। অথচ আমাদের পরিকল্পনার কর্তা ব্যক্তিরা তাঁদের অসীম মহিমায় দু'টোকে একসঙ্গে মিলিয়ে দেন। এটা কি তাঁদের অসাধারণ অঘটন ঘটনপটয়সী বিদ্যা বিভূতি? না কি সবটাই ছলনা? তাঁরাই তা ঠিক ঠিক বলতে পারেন। অবশ্য যদি ঠিক ঠিক বলার ইচ্ছে তাঁদের থাকে।

## বাংলাদেশের উন্নয়ন পরিকল্পনার উত্থান ও পতন

সেলিম জাহান

### সূচনা

উন্নয়ন পরিকল্পনা বিষয়টি যে কোন দেশেই শুধুমাত্র শুদ্ধ অর্থনীতির বলয়ে সমিাবদ্ধ নয়, বরং এটি একটি সামগ্রিক রাজনৈতিক-অর্থনৈতির ব্যাপার। উন্নয়ন পরিকল্পনার লক্ষ্য অর্থনীতিবিদেরা নির্ধারন করেন না, একটি যথার্থ নিখুঁত পরিবেশে যেখানে গণতান্ত্রিক প্রক্রিয়া বিদ্যমান, সেখানে জন প্রতিনিধিরাই উন্নয়ন পরিকল্পনার সার্বিক লক্ষ্য নির্ধারন করে থাকেন। কারণ সে অবস্থায় জন প্রতিনিধিরাই জনগণের আশা-আকাংখার প্রতিফলন ঘটাতে পারেন বলে অনুমিত হয়। এমনি একটি পরিবেশে উন্নয়ন পরিকল্পনার কৌশল ও অন্যান্য প্রায়োগিক দিক যদিও অর্থনীতিবিদসহ অন্যান্য পরিকল্পনার-সম্পৃক্ত বিশেষজ্ঞদের দ্বারা নির্ণীত হয়, কিন্তু সে সব ব্যাপারও রাজনৈতিক অনুমোদন-নিরপেক্ষ নয়। সুতরাং একটি উন্নয়ন পরিকল্পনা একটি অর্থনীতিকে কোন জাতীয় দিক নির্দেশনা দেবে, সামাজিক গোষ্ঠীগুলোর পারস্পরিক সম্পর্কের গতিময়তার কি ধরনের রূপ দেবে এবং রাষ্ট্র যন্ত্রসহ রাজনৈতিক প্রক্রিয়াকে কিভাবে প্রভাবিত করবে, চূড়ান্ত বিচারে এগুলো সবই রাজনৈতিক অর্থনীতির প্রশ্ন। কোন দেশের উন্নয়ন পরিকল্পনা প্রক্রিয়া তাই রাজনীতি-বিশুদ্ধ কোন অপেক্ষ চিরন্তন নত্যা নয়।

উপরোক্ত বক্তব্যসমূহ মেনে নিলে পরে যে সত্যটি বেরিয়ে আসে তা হচ্ছে একটি দেশে উন্নয়ন পরিকল্পনা কতখানি গুরুত্ব পাবে, তা মূলতঃ নির্ভর করছে সে দেশের রাষ্ট্রযন্ত্র সে পরিকল্পনাকে কোন দৃষ্টিকোন থেকে দেখছেন। তাঁরা কি পরিকল্পনায় আন্তরিকভাবে বিশ্বাস করেন এবং পরিকল্পনা-গ্রন্থটিকে জাতির অর্থনৈতিক দিক-নির্দেশনার দলিল বিবেচনা করেন, না কি তারা উন্নয়ন পরিকল্পনা প্রক্রিয়ায় আস্থাহীন এবং পুরো ব্যাপারটিকে তাঁদের নিজস্ব স্বার্থ সিদ্ধির অস্ত্র হিসেবে ব্যবহার করেন? দৃষ্টিভঙ্গীর এ পার্থক্যের ওপরই নির্ভর করছে একটি দেশে উন্নয়ন পরিকল্পনা কি বিকশিত হবে, জাতীয় জীবন প্রতিষ্ঠিত হবে স্ব-মহিমায়, ঘটবে তার উত্থান; নাকি পরিকল্পনা প্রক্রিয়া একটি স্থবির গতানুগতিক কার্যক্রমে পরিণত হবে, পুরো ব্যাপারটিই একটি গ্রন্থ-সর্বস্ব লোক-দেখানো প্রক্রিয়ায় পর্যবসিত হবে এবং এগিয়ে যাবে পতনের পথে? আর এক ধাপ পেছনে গেলে বলা যাবে, উন্নয়ন পরিকল্পনার প্রতি কি জাতীয় দৃষ্টিভঙ্গী রাষ্ট্রযন্ত্র গ্রহণ করবে তা নির্ণীত হয় তার শ্রেণী-চরিত্রের ওপর, কোন মতবাদে সে বিশ্বাসী এবং কি তার ঈপ্সিত লক্ষ্য। সুতরাং একটি দেশে উন্নয়ন পরিকল্পনার উত্থান ও পতনের ইতিহাস নির্ধারিত হয় আপাতদৃষ্টিতে সে দেশের রাষ্ট্রযন্ত্রের দৃষ্টিভঙ্গীর ওপর এবং গভীরতার বিশ্লেষণে সে রাষ্ট্রযন্ত্রের সামগ্রিক স্বরূপের ওপর। প্রেক্ষিতের এ জটিলতাকে

পটভূমিতে রেখে বাংলাদেশে উন্নয়ন পরিকল্পনার উত্থান ও পতনকে বিশ্লেষণ করার একটি প্রচেষ্টা বর্তমান প্রবন্ধে নেয়া হয়েছে। এ বিশ্লেষণের ক্ষেত্রে মতপার্থক্য থাকলেও কয়েকটি মৌলিক বিষয়ে সংশ্লিষ্ট সবার মধ্যে একটি মতৈক্য আছে। প্রথমত, বাংলাদেশে উন্নয়ন পরিকল্পনার ইতিহাস অতি দীর্ঘ না হলেও নিতান্ত স্বল্প নয়; দ্বিতীয়ত, এ দেশে আনুষ্ঠানিক পরিকল্পনার ইতিহাস সম্পর্কে সবাই জ্ঞাত, কিন্তু সে আনুষ্ঠানিক পরিকল্পনা প্রক্রিয়ার আগে এ দেশের জন্য একটি নিভৃত আনুষ্ঠানিক পরিকল্পনা-প্রচেষ্টা সম্পর্কেও আমাদের জানা প্রয়োজন এবং তৃতীয়ত, যে মূল বিষয়টি বর্তমান প্রবন্ধের শিরোনাম-অর্থাৎ এ দেশে উন্নয়ন পরিকল্পনার উত্থান ও পতন, সে মৌলিক আঙ্গিকটি সর্বজন স্বীকৃত। সে মুখ্য আঙ্গিকটি হচ্ছে যে সত্ত্বরের দশকের প্রথমার্ধে বাংলাদেশে স্বাধীনতার পরপরই উন্নয়ন পরিকল্পনার উত্থান ও বিকাশ ঘটেছিল এবং সত্ত্বরের দশকের শেষার্ধ থেকে এ দেশে পরিকল্পনার প্রক্রিয়া তার গুরুত্ব হারাতে শুরু করে এবং গুরুত্বহীনতার সে ক্রমাবনতি ধীরে ধীরে পতনের দিকে দ্রুত ধাবিত হয়। বাংলাদেশে পরিকল্পনা প্রক্রিয়ার এ উত্থান ও পতনের সংগঠন সম্পর্কে কোন দ্বিমত নেই, মত পার্থক্য থাকতে পারে এ প্রক্রিয়ার অন্তর্নিহিত কারণ সম্পর্কে। বর্তমান প্রবন্ধের মুখ্য উদ্দেশ্য হচ্ছে সে অন্তর্নিহিত কারণ সম্পর্কে একটি বিজ্ঞানমনস্ক আলোচনা গড়ে

বর্তমান প্রবন্ধে উপরোক্ত আলোচনার জন্য যে বিশ্লেষণ-পদ্ধতি ব্যবহার করা হয়েছে তা ইতিহাস-সম্পৃক্ত। বাংলাদেশে উন্নয়ন পরিকল্পনার ইতিহাসকে এ দেশে পরিবর্তিত রাষ্ট্রযন্ত্র ও সরকার এবং তাদের শ্রেণী চরিত্র ও অনুসৃত নীতিমালার আঙ্গিকে বিভক্ত করা হয়েছে। স্বাধীনতার পর থেকে মূলতঃ তিনটি সরকার এ দেশের রাষ্ট্রক্ষমতায় অধিষ্ঠিত ছিলেন, যার মধ্যে প্রথমটি (১৯৭১-৭৫) শ্রেণী চরিত্র ও অনুসৃত নীতিমালার দিক থেকে অন্য দুটির (১৯৭৫-৮২) ও (১৯৮২-৯০) থেকে সম্পূর্ণ ভিন্নধর্মী ছিল। শোবোক্ত দুটির মধ্যে আসলে পার্থক্য মৌলিক বিষয়ের নয়, বরং মাত্রার। সুতরাং সে প্রেক্ষিতে থেকে বর্তমান প্রবন্ধে বাংলাদেশে পরিকল্পনার উত্থান ও পতনের ইতিহাসকে তিনটি সময়কালের পটভূমিতে বিচার করা হবে, যার প্রথমটি হচ্ছে (১৯৭১-৭৫) দ্বিতীয়টি হচ্ছে (১৯৭৫-১৯৮২) এবং শেষটি হচ্ছে (১৯৮২-৯০)। এখানে উল্লেখ্য যে, এ দেশে এ পর্যন্ত যে ক'টি উন্নয়ন পরিকল্পনা প্রণীত হয়েছে, তার প্রতিটির সময়কালের সংগে উপরোক্ত সময়কাল সব সময়ে সম্পূর্ণভাবে সামঞ্জস্যপূর্ণ নয়। তবে আমাদের মতে, যেহেতু বর্তমান প্রবন্ধের প্রতিপাদ্য বিষয় এ দেশে উন্নয়ন পরিকল্পনার উত্থান ও পতন, সে প্রেক্ষিতে থেকে সংশ্লিষ্ট বিশ্লেষণে সময়কালের প্রথমমোক্ত বিভাজনই অনেক বেশী প্রসঙ্গিক এবং এ প্রাসঙ্গিক সময়কালের মধ্যে উপরোল্লিখিত অসামান্য অত্যন্ত সহজেই ব্যাখ্যায়িত হতে পারে। এখানে উল্লেখ্য যে প্রত্যেকটি সময়কালেই উন্নয়ন পরিকল্পনার অবস্থান ও অবস্থাকে রাজনৈতিক, সামাজিক ও অর্থনৈতিক দৃষ্টিকোণ থেকে দেখা হয়েছে, তার উত্থান, গুরুত্বহীনতার শুরু, গুরুত্বহীনতার ক্রমাবনতি ও পতনকে একটি নির্মোহতা ও বস্তুনিষ্ঠার নিরিখে বিচার করা হয়েছে এবং এ পুরো প্রক্রিয়ার সম্ভাব্য কারণগুলো বিশ্লেষিত হয়েছে।

### জাহান : পরিকল্পনার উত্থান ও পতন

উপস্থাপনা-বিন্যাসের দিক থেকে বর্তমান প্রবন্ধটিকে পাঁচটি অংশে বিভক্ত করা হয়েছে- প্রবন্ধের দ্বিতীয় অংশে স্বাধীনতা-পূর্ব বাংলাদেশের জন্য উন্নয়ন পরিকল্পনার কিছু অনানুষ্ঠানিক খন্ডিত প্রয়াসের ইতিহাস উল্লেখ করা হয়েছে, (১৯৭১-৭৫) সময়কালের উন্নয়ন পরিকল্পনার-প্রচেষ্টা বিশ্লেষণিত হয়েছে প্রবন্ধের তৃতীয় অংশে, প্রবন্ধের চতুর্থ ও পঞ্চম অংশে রয়েছে যথাক্রমে (১৯৭৫-৮২) ও (১৯৮২-৯০) এর পরিকল্পনার ইতিহাস, বাংলাদেশের উন্নয়ন পরিকল্পনার ভবিষ্যৎ বিশ্লেষণিত হয়েছে প্রবন্ধের ষষ্ঠ অংশে এবং ষিছু উপসংহারমূলক মন্তব্যের মাধ্যমে এ প্রবন্ধের যতি টানা হয়েছে।

#### স্বাধীনতা-পূর্ব বাংলাদেশে উন্নয়ন পরিকল্পনার অনানুষ্ঠানিক প্রয়াস

১৯৪৭ সালে ভারত-বিভিক্তির মাধ্যমে বাংলাদেশ যখন পাকিস্তান রাষ্ট্রের একটি প্রদেশ হিসেবে আত্মপ্রকাশ করল, তার কিছুদিন পরেই পশ্চিম-পাকিস্তান কেন্দ্রিক কেন্দ্রীয় সরকারের অনুসৃত অর্থনৈতিক নীতিমালা থেকে এটা সুস্পষ্ট হয়ে উঠেছিল যে বাংলাদেশ ইংরেজ ঔপনিবেশিকতার হাত থেকে মুক্ত হয়ে পাকিস্তানী ঔপনিবেশিকতার কবলে পড়েছে মাত্র। প্রথমোক্ত ঔপনিবেশিকতার সংগে দ্বিতীয়টির মৌলিক পার্থক্য ছিল প্রকৃতিগত দিক থেকে সুস্বতন্ত্র মাত্রায়, অন্য কিছুতে নয়। বাংলাদেশ প্রকৃত প্রস্তাবে পশ্চিম পাকিস্তানের সম্পদ আহরণের ক্ষেত্রে ও প্রস্তুতকৃত পণ্যের বাজারে পরিণত হয়েছিল। এরফলে পঞ্চাশ ও ষাটের দশকে পশ্চিম পাকিস্তান ও বাংলাদেশের মধ্যে অর্থনৈতিক বৈষম্য আকস্মিক হয়ে ওঠে।

ষাটের দশকের প্রথম থেকেই একদল প্রতিভাশালী বাঙালী অর্থনীতিবিদ উপরোক্ত বৈষম্য সম্পর্কে সোচ্চার হয়ে ওঠেন এবং মধ্য ষাট-দশকে সেই সুবিখ্যাত দু-অর্থনীতি' মতবাদের জন্ম হয়। এ মতবাদের প্রবক্তাদের মতে, ঐতিহাসিক, সামাজিক, রাজনৈতিক ও কাঠামোগত দিক থেকে বাংলাদেশ অর্থনীতি পশ্চিম পাকিস্তানী অর্থনীতি থেকে সম্পূর্ণ ভিন্ন এবং যদি পাকিস্তান রাষ্ট্রটির সুস্ব অর্থনৈতিক উন্নয়ন নিশ্চিত করতে হয়, তা'হলে ভিন্নধর্মী এ দুটো অর্থনৈতিক কাঠামোর সম্পূর্ণ পৃথক দু'টো উন্নয়ন পরিকল্পনার প্রয়োজন হবে। এ ব্যাপারে দু'অর্থনীতি' তত্ত্বের প্রবক্তাগণ ষাটের দশকে এ তত্ত্বের যৌক্তিকতা ও তার কর্মপ্রক্রিয়া সম্পর্কে লেখা ও বলার মাধ্যমে যে বিভিন্ন বক্তব্য উপস্থাপন করেন, খুব শক্ত বাঁধুনির না হলেও সেগুলোর সম্মিলিত রূপকে বাংলাদেশের উন্নয়ন পরিকল্পনার প্রথম অনানুষ্ঠানিক নীল নকশা হিসেবে চিহ্নিত করা যায়।

মূলতঃ এ 'দু' অর্থনীতি' তত্ত্বের ওপর ভিত্তি করে ১৯৬৬ সালে বাংলাদেশের স্বায়ত্ত্বশাসনের ৬-দফা প্রণীত হয়। এখানে স্মরণীয় যে এ স্বায়ত্ত্বশাসনের কয়েকটি দফা সম্পূর্ণভাবেই ছিল অর্থনীতি-সম্পৃক্ত এবং সে গুলোর বিশদ বিবরণ পড়লে বাংলাদেশের জন্য একটি স্বতন্ত্র উন্নয়ন পরিকল্পনা দৃশ্যমান হয়ে ওঠে। এ প্রচেষ্টাকে বাংলাদেশের উন্নয়ন পরিকল্পনার দ্বিতীয় অনানুষ্ঠানিক প্রচেষ্টা বলা যায়। এ পরিকল্পনার মৌলিক বিষয়বস্তুসমূহ একটি স্বায়ত্ত্বশাসিত রাজনৈতিক কাঠামোর মধ্যে বাংলাদেশের অর্থনৈতিক স্বায়ত্ত্বশাসন নিশ্চিতকরণ, পশ্চিম

পাকিস্তান ও বাংলাদেশে মধ্যকার পুঞ্জিত অর্থনৈতিক বৈষম্য দূরীকরণের জন্য কার্যকর ব্যবস্থার প্রস্তাব এবং বাংলাদেশে উন্নয়নের গতিময়তা সৃষ্টির জন্য সুনির্দিষ্ট কিছু প্রস্তাব। বলা বাহুল্য, দু' অর্থনীতি' তত্ত্বের প্রবক্তাবৃন্দই ৬-দফা, বিশেষতঃ এর অর্থনৈতিক দিকগুলো প্রণয়নে সক্রিয় ভূমিকা পালন করেছিলেন।

স্বাধীনতা-পূর্ব বাংলাদেশে এ দেশের জন্য শেষ যে পৃথক উন্নয়ন পরিকল্পনার প্রয়াস নেয়া হয়েছিল, তার ভিত্তি কিন্তু ততটা অনানুষ্ঠানিক ছিল না। ১৯৭০ সালে অবিভক্ত পাকিস্তানের জন্য যে চতুর্থ-পঞ্চবার্ষিক পরিকল্পনা (১৯৭০-৭৫) প্রণয়নের ক্ষেত্রে যে উপদেষ্টা পর্ষদ গঠিত হয়েছিল, তার বাংলালী সদস্যবৃন্দ বিভিন্ন বিষয়ে সে পর্ষদের পশ্চিম পাকিস্তানী সদস্যদের সংগে দৃঢ় দ্বিমত পোষণ করেছিলেন। এর ফলে ১৯৭০ সালের জুলাই মাসে উক্ত পর্ষদের বাংলালী সদস্যবৃন্দ সম্মিলিতভাবে সম্পূর্ণভাবে একটি পৃথক প্রতিবেদন পাকিস্তান সরকারের কাছে উপস্থাপন করেন, যেখানে বাংলাদেশ ও পশ্চিম পাকিস্তানের মধ্যকার বৈষম্য-বিষয়টি এবং বাংলাদেশের জন্য পৃথক উন্নয়ন পরিকল্পনার প্রচেষ্টা প্রাধান্য পেয়েছিল।

উপরোক্তোক্ত প্রয়াসগুলো শুদ্ধ অর্থনৈতিক পরিকল্পনার বিচারে সম্পূর্ণভাবে সমন্বিত ছিল, এমন বলা যাবে না, তবে এ সব খন্ডিত প্রয়াসের একটি অভিন্ন লক্ষ্য ছিল-যে লক্ষ্য হচ্ছে বাংলাদেশের মানুষের অর্থনৈতিক মুক্তি। সুতরাং অন্যান্য বিচারে এ প্রয়াসগুলোর স্থান কি হবে সে প্রশ্ন বাদ দিয়েও বলা চলে যে ঐতিহাসিক দিক থেকে এদের স্থান নিঃসন্দেহ বিশিষ্ট। এ প্রয়াসগুলো প্রাথমিকভাবে এ দেশের একটি অর্থনৈতিক দিক-নির্দেশনা খুঁজে পেতে ব্রতী হয়েছিল এবং পরবর্তীকালে এরাই বাংলাদেশের প্রথম পঞ্চবার্ষিক পরিকল্পনার ভিত্তি রচনা করেছিল।

বাংলাদেশে উন্নয়ন-পরিকল্পনার ইতিহাস (১৯৭১-৭৫)-পরিকল্পনার উত্থান

একটি রক্তক্ষয়ী মুক্তিযুদ্ধের মাধ্যমে ১৯৭১ সালে বাংলাদেশ যখন স্বাধীন হল, তখন তার অর্থনীতি সম্পূর্ণভাবে ধ্বংসপ্রাপ্ত। এ দেশের কৃষিখাত বিপর্যস্ত, শিক্ষাখাত ভেঙ্গে পড়েছে এবং ভৌত ও সামাজিক অবকাঠামোর অপূরণীয় ক্ষতি হয়েছে। এছাড়াও মুক্তিযুদ্ধ চলাকালীন সময়ে পাকিস্তানী সরকার কর্তৃক বাংলাদেশ থেকে প্রচুর সম্পদ লুণ্ঠনের ফলে সরকারী কোষাগার শূণ্য প্রায়। সুতরাং ১৯৭১ সালে নবগঠিত বাংলাদেশ সরকারের অগ্রাধিকার ছিল বাংলাদেশ অর্থনীতির পুনর্বাসন ও পুনর্গঠন।

স্বাধীন বাংলাদেশে যে চারটি রাষ্ট্রীয় মূলনীতি গ্রহণ করা হয়েছিল, তার মধ্যে একটি ছিল সমাজতন্ত্র। নব্য স্বাধীনতাপ্রাপ্ত জাতির কর্ণধারেরা তাঁদের স্বাধীনতা-পূর্ব বক্তব্য ও এ দেশের মানুষের আশা-আকাংখাকে বাস্তব রূপ দেয়ার লক্ষ্যে বাংলাদেশে একটি সমাজতান্ত্রিক অর্থনীতির বুন্যাদ গড়ে তুলতে প্রয়াসী হয়েছিল। একটি বৈষম্যমূলক, জনবহুল ও সম্পদ-অপ্রতুল দেশে প্রত্যেকটি মানুষের ন্যূনতম মৌলিক চাহিদা মেটাতে গিয়ে সমাজতান্ত্রিক অর্থনীতিই একমাত্র পথ বলে তাঁরা মনে করেছিলেন। এ উপলব্ধি থেকে তাঁরা কৃষিখাতে

### জাহান : পরিকল্পনার উত্থান ও পতন

ভূমি-সংস্কারে ব্রতী হয়েছিলেন, ক্ষুদ্র ও কুটির শিল্প ব্যতীত বৃহৎ শিল্পের পুরোটাই রাষ্ট্রীয়করণ করেছিলেন ও বৈদেশিক বাণিজ্যিক বেসরকারী খাতের হাতে ছেড়ে দেন নি। এক কথায় বলতে গেলে বাংলাদেশ অর্থনীতিকে একটি সমাজতান্ত্রিক ভিত্তির ওপরে প্রতিষ্ঠিত করে তাকে সমাজতান্ত্রিক ধারায় বিকশিত করার ব্যাপারে রাষ্ট্রযন্ত্র ব্রতী হয়েছিল।

এ পটভূমিতে অত্যন্ত স্বাভাবিকভাবেই বাংলাদেশ অর্থনীতির নিয়ন্ত্রণ হিসেবে কেন্দ্রীয় পরিকল্পনার ভূমিকা অত্যন্ত মুখ্য হয়ে ওঠে। নব্য স্বাধীনতা প্রাপ্ত বাংলাদেশ একটি প্রয়োজনীয় মর্যাদাসম্পন্ন পরিকল্পনা কমিশন গঠিত হয় এবং এ কমিশনের ওপর দেশের সার্বিক উন্নয়ন পরিকল্পনার দায়িত্ব ন্যস্ত হয়। পরিকল্পনা কমিশনের উপ-সভাপতির পদটিকে একজন কেন্দ্রীয় মন্ত্রীর পদমর্যাদা সম্পন্ন এবং কমিশনের সদস্যদের পদগুলোকে প্রতিমন্ত্রীর পদ মর্যাদাসম্পন্ন করা হয়। দেশের প্রতিযশা অর্থনীতিবিদেরা কমিশনের বিভিন্ন পদ অলংকৃত করেন। বাংলাদেশের অভ্যন্তর থেকে এবং সেই সংগে প্রবাসী বহু বাংলাগী খ্যাতনামা অর্থনীতিবিদ পরিকল্পনা কমিশনের বিভিন্ন পদে যোগদান করেন। এ ছাড়াও মেধাসম্পন্ন, উদ্যোগী ও সৃজনশীল বেশ কিছু তরুণ পেশাজীবিকে পরিকল্পনা কমিশনের বিভিন্ন বিভাগে নিযুক্তি প্রদান করা হয়। দেশপ্রেম উদ্বুদ্ধ এ দলটি ধ্বংসপ্রাপ্ত এ দেশটিকে নতুন করে গড়ে তোলার জন্য তাঁদের সকল মেধা ও শ্রম ব্যয় করতে এগিয়ে আসে। রাষ্ট্রযন্ত্রের শীর্ষে অবস্থানকারী নেতৃত্বের কাছ থেকে তাঁরা সব রকমের সাহায্য সহযোগিতা ও পৃষ্ঠপোষকতা লাভ করতে থাকে। বলা হয়েছিল যে পরিকল্পনা কমিশন আর দশটি সরকারী বিভাগের মত হবে না, একটি স্বাধীন ও মুক্ত পরিবেশে মুক্ত বুদ্ধি ও মুক্ত চিন্তা নিয়ে গবেষণার মাধ্যমে, বিকৃত পঠন-পাঠনের মাধ্যমে, সৃজনশীল কার্যক্রমের মাধ্যমে এবং মননশীল দৃষ্টিভঙ্গীর মাধ্যমে এ কমিশন নতুন স্বাধীনতাপ্রাপ্ত বাংলাদেশের অর্থনীতি দিক নির্দেশনার দলিল তৈরী করবে।

নব গঠিত পরিকল্পনা কমিশনের ওপর যে বিশ্বাস জাতি ন্যস্ত করেছিল, কমিশন তার পূর্ণ মর্যাদা রক্ষা করতে পেরেছিল। স্বাধীনতা-প্রাপ্তির দু'বছরেরও কম সময়ের মধ্যে ১৯৭৩ সালের নভেম্বর মাসে বাংলাদেশের প্রথম পঞ্চবার্ষিক পরিকল্পনা (১৯৭৩-৭৮) জন্ম স্বপ্নে উপস্থাপিত হয়। একাধিক কারণে ও পরিকল্পনা-দলিলাটি আমাদের পরিকল্পনা-প্রণয়নের ইতিহাসে এটি মাইলফলক হিসেবে চিহ্নিত হয়ে থাকবে। সে কারণগুলো অবশ্য এ জন্যে নয় যে একটি ছিল বাংলাদেশের প্রথম পঞ্চবার্ষিকী পরিকল্পনা কিংবা দেশের সবচেয়ে প্রতিযশা অর্থনীতিবিদ এর প্রণেতা ছিলেন, বরং সেগুলো অনেক গভীর-মূলে-প্রোথিত।

বাংলাদেশে প্রাণীত এ পর্যন্ত সব পরিকল্পনার মধ্যে প্রথম পঞ্চবার্ষিকী পরিকল্পনাই একটি গণমুখী রাজনৈতিক দর্শনের ওপর ভিত্তি করে রচিত হয়েছিল। এ পরিকল্পনাতে দেশের অর্থনীতিকে একটি সুনির্দিষ্ট দিক-দর্শন দেয়ার প্রয়াস নেয়া হয়েছিল এবং পুরো প্রক্রিয়ার পেছনে রাষ্ট্রযন্ত্রের একটি সুদৃঢ় অঙ্গীকার ছিল। পরিকল্পনা দলিলের মুখবন্ধে পরিকল্পনা কমিশনের সভাপতি ও গণপ্রজাতন্ত্রী বাংলাদেশের প্রধান মন্ত্রী জাতির পিতা বঙ্গবন্ধু শেখ মুজিবুর রহমান বলেছিলেন যে অত্যন্ত দ্রুততার সংগে প্রথম পঞ্চবার্ষিকী পরিকল্পনা প্রণয়ন ও

কার্যকরী করতে হয়েছে কারণ সরকার মনে করেন যে অর্থনৈতিক দিক থেকে একটি দিক-নির্দেশনা থাকা প্রয়োজন এবং সমাজতান্ত্রিক দৃষ্টিকোণ থেকে সে দিক-নির্দেশনার মধ্যে কোন কোন নীতিমালা ও কার্যক্রম সুসংঘবদ্ধ ও সামঞ্জস্যপূর্ণ ভাবে অগ্রাধিকার পাবে তারও উল্লেখ থাকা দরকার। তিনি আশা প্রকাশ করেছিলেন যে এ পরিকল্পনা দলির আগামী পাঁচ বছরের জন্য বাংলাদেশ অর্থনীতির পথ করবে। পরিকল্পনার প্রতি অঙ্গীকারের বিষয়ে তাঁর সুস্পষ্ট বক্তব্য ছিল, যত ভালভাবেই প্রণীত হোকনা কেন, কোন পরিকল্পনাই বাস্তবায়ন করা যায় না যদি না এর পেছনে কঠোর পরিশ্রম করার ও প্রয়োজনীয় স্বার্থত্যাগ করার অঙ্গীকার সমস্ত দেশের মানুষের মধ্যে না থাকে। সুতরাং, একটি এক-মন, এক-প্রাণ-সম্পৃক্ত সুদৃঢ় ইচ্ছা নিয়ে জাতিরগঠনে আমাদের সবাইকে আত্মোৎসর্গ করতে হবে। একটি দেশে পরিকল্পনার উত্থান ও বিকাশের জন্য এ জাতীয় রাজনৈতিক অঙ্গীকার একটি অত্যাাবশ্যকীয় শর্ত।

পরিকল্পনার প্রণেতারা অত্যন্ত সাহসিকতার সংগে পরিকল্পনা বাস্তবায়নের জন্য রাষ্ট্রযন্ত্রে কি কি করণীয় তা সুস্পষ্টভাবে উল্লেখ করেছেন। সে বক্তব্যে তাঁরা রাষ্ট্রযন্ত্রকে তোষামোদ করার চেষ্টা করেন নি, বরং রাজনৈতিক দিক থেকে জননন্দিত নয় কিন্তু প্রয়োজনীয় এমন সব পদক্ষেপ ও কিছু অত্যন্ত কঠিন কর্মকাণ্ড যা সরকারকে গ্রহণ করতে হবে সে ব্যাপারে রাষ্ট্রযন্ত্রকে সতর্ক করে দিয়েছেন। পরিকল্পনা দলিলের ভূমিকায় পরিকল্পনা কমিশনের উপ-সভাপতি অধ্যাপক নুরুল ইসলাম উল্লেখ করেছিলেন আমাদের রাজনৈতিক লক্ষ্যসমূহের সংগে সামঞ্জস্যপূর্ণ সামাজিক পরিবর্তনের প্রয়োজনের কথা পরিকল্পনা প্রণেতাদের চিন্তার শীর্ষে ছিল। কিন্তু এ সামাজিক পরিবর্তনকে আবার এ নতুন ব্যবস্থাকে কাজ করতে দেয়ার ব্যাপারে আমরা কতখানি প্রস্তুত তার সংগে সামঞ্জস্যপূর্ণ হতে হবে। সমাজ পরিবর্তনের জন্য কি কি সাংগঠনিক পরিবর্তনের প্রয়োজন তা পরিকল্পনা দলিলে উল্লেখিত হয়েছে, এবং এ সব পরিবর্তন পরিকল্পনার সাফল্যের অন্যতম পূর্বশর্ত। এর জন্যে একেবারে গ্রাম-পর্যায়ে সরকারী লোক-জন, উদ্যোগী কর্মী ও রাজনৈতিক নেতৃত্বের সমন্বয় একটি বিশেষ ক্যাডার তৈরী করতে হবে, যাঁরা সমাজ পরিবর্তনের সূচনামূলক ভিত্তি-কর্মটি সম্পাদন করে আমাদের উন্নয়ন প্রচেষ্টার পরবর্তী পর্যায় সমূহে আরও সামাজিক পরিবর্তনের জন্য দেশকে মানসিক ভাবে প্রস্তুত করবে। তিনি আরও বলেছিলেন, উন্নয়ন একটি শ্রুত কিন্তু অত্যন্ত বেদনাদায়ক প্রক্রিয়া। এর মানে হচ্ছে ভবিষ্যৎ লাভের জন্য বর্তমানে স্বার্থত্যাগ। এ স্বার্থত্যাগ পরিকল্পনার জন্য অত্যাাবশ্যকীয় এবং এ ত্যাগ সামাজিক দিক থেকে সহনীয় হতে পারে, শুধুমাত্র যদি এটা সবাই সমানুপাতিকভাবে ভাগ করে নেয়। আমাদের ক্ষেত্রে নমনীয়তার সুযোগ নিতান্ত কম এবং ভুল-ত্রুটি ও অপচয়ের প্রভাব অন্তর্ভুক্ত করার ক্ষমতা আমাদের আর্থ-সামাজিক ব্যবস্থার এত সীমাবদ্ধ যে অগ্রতুল সম্পদ ব্যবহারে এবং নতুন সাংগঠনিক রূপরেখা নিয়ে পরীক্ষা-নিরীক্ষার ব্যাপারে রাষ্ট্রযন্ত্রকে অত্যন্ত সচেতন ও সংবেদনশীল হতে হবে।' পরিকল্পনা কমিশনের সৃজনশীলতা, ক্ষমতা ও মর্যাদা কোন পর্যায়ে থাকলে পরে পরিকল্পনা-প্রণেতারা এ জাতীয় বক্তব্য রাখতে পারেন, তা বলার অপেক্ষা রাখে না।

জাহান : পরিকল্পনার উত্থান ও পতন

প্রয়োগিক দিক থেকেও প্রথম পঞ্চবার্ষিকী পরিকল্পনা অত্যন্ত বাস্তবমুখী বিচক্ষণতার পরিচয় দিয়েছিল। পরিকল্পনার ভূমিকায় বলা হয়েছিল যে পরিকল্পনায় অপ্রয়োজনীয়ভাবে ভাবালুতাপূর্ণ লক্ষ্যমাত্রা নির্ধারিত হয় নি, কারণ তা পরিপূর্ণ যোগ্য নয় এমন প্রত্যাশার সৃষ্টি করতে পারে। উদ্দেশ্যের দিক থেকেও এ পরিকল্পনা ছিল গণমুখী-যেখানে দারিদ্র দূরীকরণ ও স্বনির্ভরতার মত বিষয়গুলো প্রাধান্য পেয়েছিল। বলা বাহুল্য, এ সব উদ্দেশ্যসমূহ শুধুমাত্র পরিকল্পনা-দলিলে লিখিত কিংবা নেতৃত্বের উচ্চারিত বক্তব্য ছিল না, রাষ্ট্রীয় পর্যায়ে একটি সদিচ্ছা, বিশ্বাস ও অঙ্গীকার এবং তার আলোকে কার্যক্রম অনুসরণ এর পেছনে সক্রিয়ভাবে কাজ করছিল। স্বাভাবিক কারণেই সে সময়ে বাংলাদেশ অর্থনীতিতে পরিকল্পনা উত্থান নিশ্চিত হয়েছিল।

কিন্তু সদিচ্ছার কমতি না থাকা সত্ত্বেও সত্ত্বুর দশকের মাঝামাঝি সময়ে তিনটি প্রধান কারণে প্রথম পঞ্চবার্ষিকী পরিকল্পনা যেমন তার অভীষ্ট লক্ষ্য অর্জনে পুরোপুরি সফল হয় না, ঠিক তেমনি উন্নয়ন পরিকল্পনার ভূমিকাও বাংলাদেশ অর্থনীতিতে হাস পেতে থাকে। এর প্রথম কারণটি হচ্ছে অভাবনীয়ভাবে আন্তর্জাতিক বাজারে তেলের মূল্য বৃদ্ধি এবং বিশ্ববাজারে মন্দা। এ পুরো ব্যাপারটি প্রথম পরিকল্পনার সব পাক্কলনকে উল্টে-পাল্টে দেয় এবং পরিকল্পনাটিকে এটি অনিশ্চয়তার মুখে ঠেলে দেয়। দ্বিতীয় কারণটি হচ্ছে এ জাতীয় পরিকল্পনা বাস্তবায়নের জন্য যে জাতীয় প্রশাসন কাঠামো ও তার অঙ্গীকারের কথা বলা হয়েছিল, আন্তরিকতা থাকা সত্ত্বেও এ দেশের রাজনৈতিক প্রক্রিয়া সে জাতীয় একটি কাঠামো গড়ে তুলতে ব্যর্থ হয়। বরঞ্চ আমলাতন্ত্র এ দেশের একটি স্বার্থ-সম্মানী গোষ্ঠীর সংগে হাত মিলিয়ে পরিকল্পনার বিপরীতমুখী একটি অর্থনৈতিক কাঠামো ও ধারা বাংলাদেশে গড়ে তুলতে সচেষ্ট হয়। এ ষড়যন্ত্রের কারণে পরিকল্পনা কমিশনে কর্মরত সদস্য-পর্যায়ে প্রায় সব কজন প্রথিতযশা অর্থনীতিবিদ কমিশন ত্যাগ করেন এবং পদত্যাগের মুহূর্তে তাঁদের প্রত্যেকের মনে ক্ষোভ, হতাশা ও বিতৃষ্ণা বিরাজমান ছিল। তৃতীয় ও শেষতঃ ১৯৭৫ সালে সপরিবারে বঙ্গবন্ধুর হত্যা ও সরকারের পট পরিবর্তনের ফলে এ দেশে (১৯৭১-৭৫) সময়কালে উন্নয়ন পরিকল্পনার যে উত্থান সংগঠিত হয়েছিল, তা সিমিত হয়ে আসতে থাকে।

বাংলাদেশে উন্নয়ন পরিকল্পনার ইতিহাস (১৯৭৫-৮২)- পরিকল্পনার গুরুত্ব হ্রাস

১৯৭৫ সালের পরবর্তী সময়ে যে সরকার ক্ষতায় অধিষ্ঠিত হলেন, তারা সমাজতান্ত্রিক অর্থনীতিতে বিশ্বাসী ছিলেন না। সুতরাং প্রথমেই রাষ্ট্রীয় চার মৌলনীতি থেকে সমাজতন্ত্রকে বাদ দেয়া হল এবং পুঁজিবাদী প্রক্রিয়ায় উন্নয়নের মতাদর্শকে গ্রহণ করা হল। রাষ্ট্রীয় খাতকে বিরাস্ট্রীয়করণের একটি প্রতিযোগিতা শুরু হয়ে গেল এবং বলা বাহুল্য, এ বিরাস্ট্রীয়করণ প্রক্রিয়ার কোন নির্দিষ্ট নির্ণায়ক ছিল না। অতএব, অত্যন্ত স্বাভাবিকভাবেই পরিকল্পনা তার গুরুত্ব হারাতে শুরু করে।

কিন্তু বেসরকারী খাতের প্রসার সত্ত্বেও সামগ্রিক অর্থনীতিতে সরকারী খাত তখনও

গুরুত্বপূর্ণ ভূমিকা পালন করছিল। সুতরাং সরকারী খাতের প্রস্তাবিত কর্মকাণ্ডের ওপর ভিত্তি করে পরিকল্পনা-গ্রন্থ রচনার প্রয়োজন তখনও অনুভূত হচ্ছিল। এর পরিপ্রেক্ষিতে প্রথম-পঞ্চবার্ষিকী পরিকল্পনা (১৯৭৩-৭৮) উত্তর অবস্থার ধাক্কা সামলে ওঠার জন্যে প্রথমে দু' বছরের জন্য একটি অন্তঃবর্তকালীন দ্বি-বার্ষিক পরিকল্পনা গৃহীত হয়। এর মেয়াদ কাল শেষে প্রণীত হয় বাংলাদেশের দ্বিতীয় পঞ্চবার্ষিকী পরিকল্পনা (১৯৮০-৮৫)। কিন্তু এ পরিকল্পনা প্রণয়নের পেছনে গতানুগতিকতা ও দায়সারা ভাব যতখানি কাজ করেছে, অঙ্গীকার বা আন্তরিকতা ততখানি কাজ করেনি। পরিকল্পনার চূড়ান্ত দলিল প্রকাশিত হয় ১৯৮৩ সালের মে মাসে অর্থাৎ পরিকল্পনা কাল শুরু হওয়ার প্রায় তিন বছর পরে। এ পরিকল্পনায় কোন রাজনৈতিক দর্শন কাজ করেনি এবং অর্থনীতিকে একটি পথ নির্দেশ দেয়ার প্রচেষ্টাও সেখানে পরিলক্ষিত হয় না। প্রথম পরিকল্পনার রীতি অনুসরণ না করে সরকার প্রধানের পরিবর্তে দ্বিতীয় পঞ্চবার্ষিকী পরিকল্পনার ভূমিকা লিখেছিলেন তৎকালীন অর্থ ও পরিকল্পনা মন্ত্রী। লক্ষ্য ও উদ্দেশ্যে নির্ণয় এবং তার প্রেক্ষিতে কৌশল চিহ্নিত করার পেছনে কোন সৃজনশীলতা পরিলক্ষিত হয় না, তেমনি দেখা যায় না পরিকল্পনার একটি গণমুখী চরিত্র। ফলে দ্বিতীয় পঞ্চবার্ষিকী পরিকল্পনা-গ্রন্থকে কোন মতেই বাংলাদেশ অর্থনীতির (১৯৮০-৮৫) সময়কালের অর্থনৈতিক দলিল হিসেবে চিহ্নিত করা যায় না। পরিকল্পনার গুরুত্ব হ্রাসের এটাই সবচেয়ে বড় প্রমাণ।

একই সংগে পরিকল্পনা কমিশনের গুরুত্ব ও মর্যাদা হ্রাসের রাষ্ট্রযন্ত্র তৎপর হয়ে ওঠে। পরিকল্পনা কমিশনের উপ-সভাপতির পদ বিলুপ্ত করা হয় এবং কমিশনের সদস্যদের পদমর্যাদা প্রতিমন্ত্রীর স্তর থেকে নামিয়ে সচিবের পর্যায়ে নিয়ে আসা হল। সদস্য পর্যায়ে নিযুক্তি পেতে শুরু করলেন আমলারা, যাদের বেশীর ভাগেরই অর্থনীতির সংগে কোন যোগাযোগ ছিল না। পরিকল্পনা কমিশনকে আর দশটা সরকারী দপ্তরের মত একটি দপ্তরে পরিণত করা হল-যেখানে না রইল এর প্রাতিষ্ঠানিক ও কার্যক্রমমূলক স্বাভাব্যতা, না বজায় থাকল এর মর্যাদা। এ সবার ফলশ্রুতিতে সত্ত্বরের দশকের শেষের দিকে পরিকল্পনা কমিশনের বহু মেধাসম্পন্ন, উদ্যোগী ও মননশীল কর্মকর্তা কমিশনের চাকুরী ছেড়ে চলে যান এবং জনবলের গুণগত দিক থেকেও পরিকল্পনা কমিশন দুর্বল হয়ে পড়ে।

১৯৭৫ সালের সামগ্রিক অভ্যুত্থানের পরে যে সরকার ক্ষমতায় এসেছিলেন তারা ব্যক্তি-পুঁজিতে বিশ্বাস করতেন। ফলে এ পুঁজির বিকাশে সরকার তৎপর হয়ে ওঠেন। কিন্তু সে বিকাশে রাষ্ট্রযন্ত্র যে সব সময়ে সৎ পন্থা অবলম্বন করেছিল, এমন বলা যাবে না। এদেশে একটি ধনিক শ্রেণীর উদ্ভবে সরকার প্রত্যক্ষভাবে সাহায্য করেছিলেন, সে শ্রেণীর সংগে আমলাতন্ত্র ও সামরিক বাহিনীর একটি সংযোগ স্থাপন করে নিয়েছিলেন এবং দুর্নীতিকে প্রাতিষ্ঠানিক রূপ দিয়েছিলেন। এ ছাড়াও কেন্দ্রীয় পর্যায়ে রাষ্ট্রযন্ত্রে পরিপোষক একটি শ্রেণীকে গ্রামাঞ্চলে গড়ে তুলতে তারা তৎপর হয়েছিলেন। যদিও দ্বিতীয় পঞ্চবার্ষিকী পরিকল্পনায় একে স্থানীয় পর্যায়ে পলিকল্পনা ও স্থানীয় জনগণের অংশ গ্রহণ বলে চিহ্নিত করার প্রয়াস লক্ষ্যনীয়, কিন্তু আসলে পুরো ব্যাস্টিটাই ছিল নগর-কেন্দ্রীক রাষ্ট্রযন্ত্র ও তার সহযোগীদের স্বার্থরক্ষার জন্যে গ্রামে

## জাহান : পরিকল্পনার উত্থান ও পতন

একটি শ্রেণী গড়ে তোলা, যারা ক্ষমতা ভাগ্যভাগির প্রশ্নের, সম্পদ লুটের প্রেক্ষিতে পরস্পর পরস্পরের পরিপূরক হিসেবে কাজ করবে। এ জাতীয় একটি পটভূমিতে সত্যিকারের উন্নয়ন পরিকল্পনার স্থান কোথায় হতে পারে, তা বলার অপেক্ষা রাখে না।

যখন রাষ্ট্রযন্ত্রের শির্ষ পর্যায় থেকে বলা হয় যে অর্থ কোন সমস্যা নেই, বুঝতে হবে যে সে দেশে পরিকল্পনার দিন শেষ হয়ে এসেছে। কারণ পরিকল্পনা অর্থনৈতিক শৃংখলার সংগে সম্পৃক্ত এবং উপরোক্ত বক্তব্য সব রকমের শৃংখলা বোধকে ভেঙ্গে দেয়। (১৯৭৫-৮২) সময়কালে রাষ্ট্রযন্ত্র দলতান্ত্রা, দল ছুট ইত্যাদি রাজনৈতিক কৌশল অবলম্বন করে এবং এ জাতীয় ক্ষতিকর রাজনৈতিক ধারাকে উৎসাহিত করে এ দেশের গণতান্ত্রিক প্রক্রিয়ার সবচেয়ে বড় ক্ষতি করেছে। সুস্থ গণতান্ত্রিক একটি প্রক্রিয়া নষ্ট হয়ে যাবার ফলে অর্থনীতির ক্ষেত্রে তার প্রভাব পড়েছে একটি জবাবদিহি বিহীন ব্যবস্থার উদ্ভবের মাধ্যমে। সুতরাং অর্থনীতি শৃংখলা ও জবাবদিহিবিহীনতাকে বাংলাদেশ অর্থনীতিতে প্রাথমিকভাবে প্রতিষ্ঠা করে (১৯৭৫-৮২) কালের রাষ্ট্রযন্ত্র বাংলাদেশের পরিকল্পনা প্রক্রিয়ার পতনের ধারার সূচনা করে।

### বাংলাদেশে উন্নয়ন পরিকল্পনার ইতিহাস (১৯৮২-৯০) - পরিকল্পনার পতন

১৯৮২ সালে বাংলাদেশে আবার সরকারের পট পরিবর্তন ঘটে। তবে এ পরিবর্তন '৮২-পূর্ব বাংলাদেশে যে রাজনৈতিক, সামাজিক ও অর্থনৈতিক ধারা সূচিত হয়, তার কোন মৌলিক পরিবর্তন ঘটায় নি। কারণ শ্রেণী-চরিত্রের দিক থেকে '৮২-উত্তর সরকারকে (১৯৭৫-৮২) সময়কালে অধিষ্ঠিত সরকারের উত্তরসূরী বলা যায়। অতএব, '৮২-উত্তর বাংলাদেশ সরকার তার পূর্বসূরীর অনুসৃত কার্যক্রম ও নীতিমালাকেই অনুসরণ করতে থাকে। এখানে প্রশ্নটা ছিল শুধু মাত্র। পরিকল্পনার ক্ষেত্রেও এর ব্যত্যয় ঘটেনি।

অর্থনৈতিক আদর্শের দিক থেকে '৮২ উত্তর সরকারও ব্যক্তিগত পুঁজি ও বেসরকারী খাতের প্রসারকেই অন্যতম লক্ষ্য হিসেবে গ্রহণ করে এবং অত্যন্ত জোরালোভাবে এ লক্ষ্য অর্জনের জন্য নানা নীতিমালা গ্রহণ করতে থাকে। ১৯৮২ সালের নতুন শিল্প নীতি, অর্থনীতির উন্মুক্তকরণ ও বৈদেশিক বাণিজ্যের ক্ষেত্রে সব রকমের বিধি নিষেধ প্রত্যাহার ইত্যাদি ব্যবস্থাদির এসব নীতিমালার অন্তর্ভুক্ত ছিল। এ সব নীতিমালা গ্রহণের ক্ষেত্রে বিশ্বব্যাংক আন্তর্জাতিক মুদ্রা তহবিল ও অন্যান্য দাতাদেশগুলোর প্রভাব ও চাপ ছিল সুস্পষ্ট। যেহেতু সরকার ক্রমাগতভাবে তার নানা ক্রিয়া-কর্মের জন্য দাতাগোষ্ঠীর ওপর নির্ভরশীল হয়ে পড়ছিল সুতরাং দাতাগোষ্ঠীর কথা অমান্য করার কোন পথ তাদের সামনে খোলা ছিল না। এটা বলা নিষ্পয়োজন যে এ অবস্থায় উন্নয়ন পরিকল্পনার পতন মোটামুটিভাবে অনিবার্য।

নগর ও গ্রাম-কেন্দ্রিক যে ধনিক শ্রেণীর সৃষ্টি '৮২-পূর্ব কালে শুরু হয়েছিল, পরবর্তী সময়ে সরকার এ শ্রেণীর বিকাশের প্রধান পৃষ্ঠপোষক হয়ে ওঠে। রাষ্ট্রযন্ত্র, আমলা, ধনিক শ্রেণী ও সামরিক বাহিনীর মধ্যকার প্রত্যক্ষ এক আঁতাতের মাধ্যমে একটি শ্রেণী গড়ে উঠে যারা সরকারের প্রধান উৎস হিসেবে আত্মপ্রকাশ করে। সরকারের পরিচালকেরা বুর্জোয়া শ্রেণীর রক্ষক না হয়ে নিজেরাই বুর্জোয়া শ্রেণীতে পরিণত হয়। সরকারের ক্ষমতার উৎস যারা, তাদের

সন্তুষ্ট রাখার জন্য প্রয়োজন হতে শুরু করে অধিকতর সম্পদের। অন্যদিকে সরকারের সংগে আঁতাতকারী সবাই দেশের সম্পদে বৃহত্তরভাগ বসাতে উন্মুখ হয়ে ওঠে। এ জাতীয় ক্রিয়া-কর্ম যখন অর্থনীতির মুখ্য অবস্থা হয়ে ওঠে, যখন বলগাহীন লুণ্ঠন অর্থনীতির প্রধান নীতিমালা হয়ে আত্মপ্রকাশ করে, তখন পরিকল্পনা ব্যাপারটিকে বাড়তি ঝামেলা হিসেবে দেখা হয়।

কিন্তু যেহেতু সরকারী খাত তখনও বাংলাদেশের অর্থনৈতিক জীবনে গুরুত্বপূর্ণ ভূমিকা পালন করে আসছিল এবং কিয়দংশ পঞ্চবার্ষিকী পরিকল্পনা প্রণয়ন একটি প্রচলিত ধারায় পরিণত হয়েছিল, সেহেতু ১৯৮৫ সালের জুলাই মাস থেকে তৃতীয় পঞ্চবার্ষিকী পরিকল্পনার (১৯৮৫-৯০) সূচনা করা হয়। পরিকল্পনা গ্রন্থটি অবশ্য প্রকাশিত হয় ছ'মাস পরে- ডিসেম্বর, ১৯৮৫ তে। তৃতীয় পঞ্চবার্ষিকী পরিকল্পনা এমনভাবে প্রণীত হয়েছিল, যাতে মনে হয় পরিকল্পনা প্রক্রিয়াটি নিতান্তই একটি প্রায়োগিক কাঠামো গঠনের মত, এর কোন রাজনৈতিক অর্থনীতি নেই, নেই কোন অর্থনৈতিক দিক নির্দেশনা দেয়ার লক্ষ্য। এ পরিকল্পনায় পুরো পরিকল্পনা ব্যাপারটিকে একটি আংশিক ব্যাপারে পরিণত করা হয়েছিল। দ্বিতীয় পঞ্চবার্ষিকী পরিকল্পনার গতানুগতিকতা এতেও প্রবাহমান ছিল এবং সেই সংগে বেসরকারী খাতের জন্য উৎসাহভিত্তিক একটি সঙ্গতিমূলক পরিকল্পনাও সেখানে ছিল, যদিও সে সঙ্গতি না ছিল অর্থবহ, না ছিল কোন শক্তি ভিত্তির ওপর প্রতিষ্ঠিত। প্রকল্পের সমাহারকেই পরিকল্পনা হিসেবে সংজ্ঞায়িত হয়েছিল এবং প্রকল্পের সার্থক বাস্তবায়নকেই পরিকল্পনার পূর্ণ রূপায়ন বলে ঘোষণা করা হয়েছিল। অতএব, তৃতীয় পঞ্চবার্ষিকী পরিকল্পনায় পরিকল্পনার মৌলিক বিষয়বস্তুকে বিসর্জন দিয়ে একে একটি কারিগরী প্রক্রিয়ায় পরিণত করা হয়েছিল।

আশির দশকের মাঝামাঝি সময়ে পরিকল্পনা কমিশনের অবস্থান আরও দুর্বল হয়ে পড়ে। বিভিন্ন বিভাগে সৃজনশীল কর্মকর্তার অভাব প্রকট হয়ে ওঠে, পরিকল্পনার সংগে সম্পর্কহীন ব্যক্তিবর্গ পরিকল্পনা কমিশনে নানান পদে নিযুক্তি পেতে থাকেন এবং কমিশনের বিভিন্ন বিভাগের মধ্যে আন্তঃ সম্পর্কের যেমন ক্রমাবনতি ঘটতে থাকে, তেমনি বিভাগগুলোর মধ্যে সমন্বয়ের অনুপস্থিতি প্রবল হয়ে ওঠে। ফলে পরিকল্পনা প্রণয়নের ব্যাপারে পরিকল্পনা কমিশনের ব্যক্তিবর্গের মধ্যে এক ধরনের অনাগ্রহ সুস্পষ্ট হয়ে ওঠে। শোনা যায়, পুরো তৃতীয় পরিকল্পনা গ্রন্থটি কমিশনের একজন বিশিষ্ট সদস্যের একক প্রচেষ্টার ফসল। পরিকল্পনা প্রণয়ন ব্যাপারটি যেখানে একটি সমন্বিত প্রয়াসের ফলাফল, সেখানে এ জাতীয় ঘটনাকে আদর্শ স্থানীয় নিশ্চয়ই বলা যায় না। নিশ্চিতভাবে এ ব্যাপারটি এ কারণেই ঘটেছিল কারণ পরিকল্পনা প্রণয়নের জন্য একাধিক সৃজনশীল ব্যক্তিত্বের অভাব কমিশনে ছিল। পরিকল্পনা প্রক্রিয়ার পতনের এও আর একটি সূচক।

অতএব তৃতীয় পরিকল্পনা শেষে এবং দেশের চতুর্থ পঞ্চবার্ষিকী পরিকল্পনা (১৯৯০-৯৫) প্রণয়নের প্রাক্কালে যেখানে অর্থনীতির দিক-নির্দেশনার জন্য পরিকল্পনা প্রণয়নের প্রয়োজন নেই, প্রয়োজন রয়েছে অন্য কারণে, যখন পরিকল্পনায় সরকারে বিশ্বাস ও অস্বীকার কোনটাই নেই, যখন দাতা গোষ্ঠী বাংলাদেশ অর্থনীতির পুরো নিয়ন্ত্রণ গ্রহণ করেছে, যখন পরিকল্পনা

## জাহান : পরিকল্পনার উত্থান ও পতন

কমিশনের শক্তি ও মর্যাদা নিঃশেষিত প্রায় এবং যখন রাষ্ট্রযন্ত্র ও সরকার সম্পূর্ণভাবেই জনগণ-বিচ্ছিন্ন। এ পটভূমিতেই বিচার করতে হবে বাংলাদেশে উন্নয়ন পরিকল্পনার ভবিষ্যৎ।

### বাংলাদেশে উন্নয়ন পরিকল্পনার ভবিষ্যৎ

১৯৯০ সালের ১লা জুলাই থেকে বাংলাদেশে সূচিত হয়েছে দেশের চতুর্থ পঞ্চবার্ষিকী পরিকল্পনা (১৯৯০-৯৫)। পরিকল্পনা দলিলে বলা হয়েছে যে, একটি বিশ বছরব্যাপী প্রেক্ষিত পরিকল্পনার (১৯৯০-২০১০) অংশ হিসেবে চতুর্থ পরিকল্পনা প্রণীত হয়েছে। তাই যদি হয়, তা'হলে যৌক্তিকভাবে প্রথমে প্রেক্ষিত পরিকল্পনাটি প্রণীত হওয়া প্রয়োজন ছিল এবং তার সূত্র ধরে প্রণীত হওয়া উচিত ছিল চতুর্থ পরিকল্পনা। কিন্তু বাস্তবে তা হয়নি, কোন প্রেক্ষিত পরিকল্পনা (১৯৯০-২০১০) এখনও জনসমক্ষে উপস্থিত হয়নি। এখানে উল্লেখ্য যে, তৃতীয় পঞ্চবার্ষিকী পরিকল্পনা প্রণয়ন কালেও (প্রেক্ষিত পরিকল্পনার (১৯৮৫-৯০) ওপর চিন্তা-ভাবনা বলে একটি পুস্তিকা পরিকল্পনা কমিশন প্রণয়ন করেছিল, কিন্তু পরবর্তীকালে তার ভাগ্যে কি ঘটেছিল, তা আমাদের জানা নেই।

চতুর্থ পঞ্চবার্ষিকী পরিকল্পনা-গ্রন্থটিকে বিভিন্ন সুন্দর দর্শনের সমাহার বলে অনেকে অভিহিত করেছেন, যেখানে একটি সামষ্টিক কাঠামো অনুপস্থিত বলে প্রতীয়মান হয়। চতুর্থ পরিকল্পনার তিনটি অন্তর্নিহিত দুর্বলতা সম্পর্কে আমাদের সচেতন হওয়া প্রয়োজন। এর প্রথমটি হচ্ছে পরিকল্পনায় উত্থাপিত বিষয়সমূহের প্রতি রাষ্ট্রযন্ত্রের অঙ্গীকারের বিষয়টি। যেমন ধরা যাক, গোষ্ঠীভিত্তিক পরিকল্পনার ধারণাটি। দর্শন হিসেবে সুন্দর সন্দেহ নেই, কিন্তু তারপরেও কথা থেকে যায়। গোষ্ঠীভিত্তিক বিশেষ করে দরিদ্র জনগোষ্ঠীর স্বার্থে যদি পরিকল্পনা প্রণয়নের প্রচেষ্টা চালানো হয়, তা'হলে ধনিক গোষ্ঠীর স্বার্থে আঘাত লাগবেই এবং সেটা সে গোষ্ঠীর কাছে অতিপ্রেরিত হবে না। যেহেতু এ গোষ্ঠী রাষ্ট্রযন্ত্রের ক্ষমতার উৎস, সুতরাং মৌলিক প্রশ্নটি হচ্ছে তাদের সহযোগী গোষ্ঠীর স্বার্থ এবং সে সঙ্গে নিজেদের স্বার্থ বিনষ্ট করে দরিদ্র শ্রেণীর স্বার্থে কার্যক্রম গ্রহণ করার মত অঙ্গীকার এবং সে জাতীয় কাজ করলে ক্ষমতা চ্যুতির যে ঝুঁকি আছে, তা গ্রহণ করতে রাষ্ট্রযন্ত্র প্রস্তুত কিনা? তেমনভাবে খাতভিত্তিক পরিকল্পনাকে যখন স্থানীয় পর্যায়ের পরিকল্পনার সংগে শেযোক্ত পরিকল্পনাকে যখন অগ্রাধিকার দেয়া হবে, তখন কেন্দ্রীয় পর্যায়ের আমলাদের কাছ থেকে বহু ক্ষমতাই স্থানীয় পর্যায়ে স্থানান্তরিত হবে। কেন্দ্রীয় আমলাদের বিরাগভাজন হয়ে এ কাজটি করতে সরকার কতখানি অঙ্গীকারাবদ্ধ? সারা পরিকল্পনা গ্রন্থেই অনুমিত হয়েছে যে বিভিন্ন গোষ্ঠীর স্বার্থের মধ্যে কোন সংঘাত নেই এবং সরকারসহ সব গোষ্ঠীই সম্প্রসারিত আত্মস্বার্থের জন্য সংকীর্ণ আত্মস্বার্থ বিসর্জন দিতে প্রস্তুত। আমাদের মত শ্রেণীবিত্তস্ত সমাজে এ অনুমান প্রশ্ন সাপেক্ষ। দ্বিতীয় যে অন্তর্নিহিত দুর্বলতা চতুর্থ পরিকল্পনায় রয়েছে তা হচ্ছে তাত্ত্বিক ভাবধারা হিসেবে এতে অনেক কাম্য ধ্যান-ধারণা আছে, কিন্তু সেগুলো কি করে বাস্তবায়ন করা হবে তার কোন রূপরেখা নেই। পরিকল্পনা অত্যন্ত প্রায়োগিক ব্যাপার। দর্শন তার একটি অংশ মাত্র

কিন্তু যে দর্শন কার্যকর হয় না যদি না পরিকল্পনা বাস্তবায়নের পথটিও নির্দেশ না করা হয়। তৃতীয় অন্তর্নিহিত দুর্বলতাটি হচ্ছে পরিকল্পনার সামষ্টিক অধ্যয়নগুলোতে উপস্থাপিত দর্শনসমূহের প্রতিফলন ব্যষ্টিক অধ্যয়নসমূহে নেই। সুতরাং সামগ্রিক পরিকল্পনা দলিলে একটি সামঞ্জস্যহীনতা লক্ষ্যণীয়।

সত্যিকার অর্থে উন্নয়ন পরিকল্পনায় বর্তমানের রাষ্ট্রযন্ত্রের বিশ্বাস এবং অঙ্গীকার কোনটাই নেই এবং এ রাষ্ট্রযন্ত্রের শ্রেণী চরিত্রের প্রেক্ষিতে সে জাতীয় বিশ্বাস বা অঙ্গীকার কোনটাই আশা করা যায় না। ব্যক্তিগত পুজিবাদ ও বেসরকারী খাতের প্রসারের মাধ্যমে কতিপয় শ্রেণীর উন্নতি যদি রাষ্ট্রযন্ত্রের লক্ষ্য হয়, তখন সম্পদ লুণ্ঠনের পরিকল্পনা ভিন্ন অন্য কোন পরিকল্পনার প্রয়োজন নেই। অর্থনৈতিক শৃংখলা যদি বারংবার লংঘিত হতে থাকে এবং জবাবদিহির কোন ব্যবস্থা যদি অনুপস্থিত থাকে তবে উন্নয়ন পরিকল্পনার কার্য-পরিধি কোথায়?

তবুও ভবিষ্যৎ দিনগুলোতে উন্নয়ন পরিকল্পনা প্রণীত হতে থাকবে - সেটা বাংলাদেশ অর্থনীতিকে একটি দিক নির্দেশনা দেয়ার জন্য একটি অর্থনৈতিক দলিল হিসেবে নয়, বরং তা প্রস্তুত করা হবে একটি প্রামাণ্য গ্রন্থ হিসেবে যার ভিত্তিতে দাতাগোষ্ঠী আমাদের সাহায্য দেবে। সুতরাং আমাদের অর্থনীতির দিক-নির্দেশনা নির্ধারণ করতে নয়, বরং দাতাদের চাহিদা মেটাতে আমরা ভবিষ্যতে উন্নয়ন পরিকল্পনা প্রণয়ন করব। আমরা জবাবদিহি করব দাতাগোষ্ঠীর কাছে, আমাদের জনগণের কাছে নয়। দাতাগোষ্ঠীর চিন্তা-চেতনার প্রতিফলন থাকবে আমাদের পরিকল্পনা গ্রন্থে, সেখানে অনুপস্থিত থাকবে আমাদের জনগণের আশা-আকাংখা। রাষ্ট্রযন্ত্র একে ব্যবহার করবে স্বীয় স্বার্থে, জনকল্যাণে নয়। এ পুরো প্রক্রিয়া ইতিমধ্যেই শুরু হয়ে গেছে এবং আগামী দিনগুলোতে তা আরও সংহত হবে। আজ আমরা এমন একটি পর্যায়ে পৌঁছেছি যেখানে দাতাগোষ্ঠীর সংগে আলাপ-আলোচনার আলোচ্যসূচীও তারা নির্ধারণ করছে। পরনির্ভরতার এবং উন্নয়ন পরিকল্পনার পতনের এটাই হয়তো চূড়ান্ত রূপ।

দীর্ঘকাল ধরে বাংলাদেশে উন্নয়ন পরিকল্পনা যে ক্রমপতনের দিকে এগিয়ে গেছে, সে দায়ভাগে আমরা সবাই অংশীদার, যদিও সেখানে মুখ্য ভূমিকা রাজনৈতিক প্রক্রিয়ার, কিন্তু পেশাজীবী সরকারী কর্মকর্তা কিংবা বিশেষজ্ঞ যঁারা, আমরা কি আমাদের নৈতিক দায়িত্ব পালন করেছি উন্নয়ন পরিকল্পনার অবস্থানকে সুরক্ষিত করতে? এটুকু নৈতিক সাহস নিয়ে আমরা কি রাজনৈতিক প্রক্রিয়াকে বলেছি যে স্বৈচ্ছাচারের মাধ্যমে তারা যে উন্নয়ন পরিকল্পনার ক্ষতি করেছে তা কাম্য নয়। আমরা কি রাজনৈতিক প্রক্রিয়ার সব রকমের চাহিদা, যার মধ্যে গণবিরোধী চাহিদাও রয়েছে, তার যোগান দিতে সচেষ্ট থাকিনি স্বীয় স্বার্থ রক্ষার্থে? পেশা হিসেবে আমরা কতখানি পেশাগত সততা ও নিষ্ঠা বজায় রেখেছি? পেশাগত দিক থেকে আমরা কি সব সময়ে সত্য কথা বলেছি? তাই যদি হয় তাহলে চতুর্থ পরিকল্পনা গ্রন্থের খসড়ায় আমরা কি করে বলি, 'Moreover, a General Equilibrium Model, developed in the Planning Commission, has been used to analyse the

জাহান : পরিকল্পনার উত্থান ও পতন

impact of sectoral allocations in the Fourth Plan particularly on the disadvantaged groups and for evaluating the efficiency of resource use in the plan.' (I-20)? প্রায়শই প্রশ্ন করা হয় চতুর্থ পরিকল্পনায় এ মডেলটি কি ব্যবহার করা হয়েছে? কিন্তু তার আগেও মৌলিকতম প্রশ্ন আছে? যে কাজের জন্য মডেলটি ব্যবহার করা হয়েছে বলে দাবী করা হয়, তার জন্য আদৌ মডেলটি কি ব্যবহারযোগ্য? দ্বিতীয় প্রশ্ন, মডেলে ব্যবহারের জন্য যে গোষ্ঠীভিত্তিক উপাত্ত প্রয়োজন, তা কি ছিল? সবচেয়ে বড় প্রশ্ন আমরা কেন এ মডেলটি সর্ব সমস্যার সমাধান দিতে পারে বলে প্রচার করছি এবং সততা ও সাহসের সংগে সত্য কথাটি বলছি না, অন্ততঃ পেশাগত সততার স্বার্থে।

উপসংহার

বাংলাদেশের উন্নয়ন পরিকল্পনার উত্থান ও পতন শীর্ষক আলোচনার ক্রান্তিলগ্নে এসে মনে হচ্ছে যে আগামী দিনগুলোতে উন্নয়ন পরিকল্পনার প্রতি রাষ্ট্রধর্মের সার্বিক অনীহা, অবিশ্বাস ও অঙ্গীকারহীনতা এবং একে স্থায়ী স্বার্থে ব্যবহারের প্রবণতা, অর্থনৈতিক শৃংখলা ভঙ্গ, জবাবদিহি না করার ব্যবস্থাকে প্রাতিষ্ঠানিক রূপ দেয়া ও স্বৈচ্ছাচারিতাকে নিয়মে পরিণত করা এবং সর্বোপরি আমাদের পেশাগত সততা ও নিষ্ঠার অভাবের কারণে বাংলাদেশে উন্নয়ন পরিকল্পনার ভবিষ্যৎ ক্রমেই অনিশ্চিত হয়ে পড়ছে।

## চতুর্থ পঞ্চবার্ষিক পরিকল্পনা ও কিছু মৌলিক প্রশ্ন

ফাতেমা জোহরা\*

কিছুদিন হল বাংলাদেশ সরকারের পরিকল্পনা কমিশন থেকে চতুর্থ পঞ্চবার্ষিক (১৯৯০-৯৫) পরিকল্পনার খসড়া দলিল প্রকাশিত হয়েছে। এই “চতুর্থ পঞ্চবার্ষিক পরিকল্পনা” দীর্ঘমেয়াদী (বিশ বছর-১৯৯০-২০১০) প্রেক্ষিত পরিকল্পনার সূচনা পর্ব। সুতরাং আগামী বিশ বছরের জাতীয় উন্নয়নের গতি ধারা এর উপর বিশেষ নির্ভরশীল। আগামী বিশ বছরের আর্থসামাজিক অবস্থার ভবিষ্যৎ-ভারসাম্য রক্ষার স্বার্থে এই প্রেক্ষিত পরিকল্পনার বেশ কিছু গুরুত্বপূর্ণ পদক্ষেপ গ্রহণের সিদ্ধান্ত ব্যক্ত করা হয়েছে। বলা যায় এটি এই পরিকল্পনাকে গতানুগতিকতা থেকে পৃথক করেছে। এই পরিকল্পনার বিশেষ দিকগুলো হচ্ছে:

(১) চতুর্থ পঞ্চবার্ষিক পরিকল্পনা (১৯৯০-৯৫) একটি দীর্ঘ মেয়াদী প্রেক্ষিত পরিকল্পনার অংশ (১৯৯০-২০১০) হিসাবে প্রণীত। (২) প্রেক্ষিত পরিকল্পনার প্রধান লক্ষ্য হিসাবে (ক) জাতীয় আয় বৃদ্ধি ও (খ) দ্রুত মানব সম্পদ উন্নয়ন ও কর্মসংস্থান বৃদ্ধির কার্যক্রমকে লক্ষ্য এবং কলা-কৌশল উভয়ভাবেই চিহ্নিত করা হয়েছে। (৩) উপরোক্ত দিক নির্দেশনার পরিপ্রেক্ষিতে জাতীয় আয় বৃদ্ধি, কর্মসংস্থান বৃদ্ধির মাধ্যমে দরিদ্র দূরীকরণ, ক্রমবর্ধমান আত্মনির্ভরতাকে চতুর্থ পরিকল্পনার প্রধান লক্ষ্য হিসাবে চিহ্নিত করা হয়েছে। প্রেক্ষিত পরিকল্পনার কাঠামোর মাধ্যমে এ সব লক্ষ্য অর্জনের জন্য চতুর্থ পরিকল্পনার একটি অন্যতম কৌশল হিসাবে ‘খাত ভিত্তিক’ (কৃষি, শিল্প প্রভৃতি) প্রকল্প প্রণয়ন পদ্ধতির সাথে সাথে সামাজিক গোষ্ঠী ভিত্তিক পরিকল্পনা ও প্রকল্প প্রণয়ন পদ্ধতিও গ্রহণ করা হয়েছে। সুতরাং দেখা যাচ্ছে প্রথমতঃ চতুর্থ পঞ্চবার্ষিক পরিকল্পনায় দেশের উন্নয়ন এবং স্বনির্ভরতা অর্জন হচ্ছে মুখ্য উদ্দেশ্য, এর পর এসেছে জনসাধারণের দারিদ্রতা দূরীকরণ। দ্বিতীয়তঃ জাতীয় আয় বৃদ্ধি এবং স্বনির্ভরতা অর্জনের জন্য জনশক্তির উন্নয়নের কর্মসংস্থানকে এর সংগে জোড়া দেওয়া। তৃতীয়তঃ খাতওয়ারী পরিকল্পনার সংগে গোষ্ঠীমূলক পরিকল্পনার অবতারণা করা হয়েছে।

এবার দেখা যাক, চতুর্থ, পাঁচশালা পরিকল্পনায় নূতন কিছু করবার সুযোগ কতটুকু আছে। গত কয়েক বছর ধরে সরকারের গৃহীত নূতন শিল্পনীতির কারণে বেসরকারী খাতে এবং বাজার শক্তি বিকাশ পরিকল্পনার ভূমিকাকে প্রান্তিকতার দিকে নিয়ে যাচ্ছে। অন্যদিকে গত

\* রিসার্চ ফেলো, বাংলাদেশ উন্নয়ন পরিষদ।

## জোহরা : চতুর্থ পরিকল্পনা

পরিকল্পনাকাল থেকে চলমান যে প্রকল্পগুলো চতুর্থ পরিকল্পনাতে এসেছে সেগুলোও চতুর্থ পঞ্চবার্ষিক পরিকল্পনার সুযোগকে সীমিত করেছে। চতুর্থ পঞ্চ বার্ষিক পরিকল্পনার প্রস্তাবিত পরিমাণ ৬,৭২,৩০০ মিলিয়ন টাকা। এর মধ্যে ৪,০৭,৩০০ মিলিয়ন যাবে সরকারী খাতে এবং ২,৬৫,০০০ মিলিয়ন বেসরকারী খাতে। তবে সরকারী খাতের নির্ধারিত আয়ের ৫৮ শতাংশই চলে যাবে পূর্বের চলমান প্রকল্পগুলো পরিচালনার জন্য। সুতরাং চতুর্থ পরিকল্পনার জন্য সরকারী খাতে থাকছে ৪২ শতাংশ। সীমাবদ্ধতার আর একটি কারণ হচ্ছে বৈদেশিক সাহায্য নির্ভরতা। কারণ সাহায্যে প্রাপ্যতার উপরেই অনেক নূতন প্রকল্প নেওয়া বা আরম্ভ করা নির্ভর করেছে। আবার এর মধ্যেও অনেকগুলোই থাকবে দীর্ঘমেয়াদী শর্তের আওতায়। যার আয়ুষ্কাল এই পরিকল্পনাকালের চাইতে বেশী। সুতরাং সম্পূর্ণ অর্থ এই পরিকল্পনা কালে পাওয়া যাবে না। এছাড়াও রয়েছে আভ্যন্তরীণ সম্পদ সঞ্চালনে বন্ধাভূ। সুতরাং দেখা যাচ্ছে চতুর্থ পরিকল্পনায় বিপ্ৰবাত্তক নূতন কিছু করবার বা ঘটাবার সুযোগ অর্থনৈতিক দিক দিয়ে আপততঃ দৃষ্টিতে বেশ সীমিত।

পদ্ধতিগত দিক থেকে বিবেচনা করলে দেখা যায়, পূর্বের পরিকল্পনাগুলোতে দারিদ্রতা দূরীকরণকে মূখ্য শর্ত হিসাবেই ধরা হয়েছিল! কিন্তু চতুর্থ পরিকল্পনার রূপরেখায় বাক্য বিন্যাসের কারণেই হোক বা অন্য কারণেই হোক মূলতঃ প্রাধান্য পেয়েছে দেশের উন্নয়ন, তারপর এসেছে জনসাধারণের কর্মসংস্থান বৃদ্ধি এবং দারিদ্রতা দূরীকরণ। সুতরাং এটা বলা ভুল হবে না যে, চতুর্থ পঞ্চবার্ষিক তথা বিশ বছর মেয়াদী প্রেক্ষিত পরিকল্পনার প্রধান উদ্দেশ্য হচ্ছে জাতীয় আয় বৃদ্ধি করা এবং স্বনির্ভরতা অর্জন। এই লক্ষ্য অর্জনের জন্য জনশক্তির উন্নয়ন এর সংগে জোড়া দেওয়া হয়েছে কর্মসংস্থানের বিষয়। এটা আরও স্পষ্ট হয়ে যায় বিভিন্ন খাতে বরাদ্দ এবং প্রকল্প বাছাইয়ের প্রকৃতি ও পদ্ধতি থেকে। চতুর্থ পঞ্চবার্ষিক পরিকল্পনায় কর্মসংস্থান বৃদ্ধির মাধ্যমে দারিদ্র বিমোচনরে লক্ষ্য অর্জনের জন্য যথোপযুক্ত নয়া গতানুগতিক পদ্ধতিতে capital output ratio, rate of return on investment ইত্যাদি ব্যবহার করে বিভিন্ন খাতে মূলধনের বরাদ্দ ও প্রকল্প বাছাই করা হচ্ছে। অর্থাৎ সর্বাপেক্ষা কম মূলধন বিনিয়োগে উৎপাদন সর্বোচ্চ পরিমাণে বৃদ্ধি করাই এই পদ্ধতির মূখ্য উদ্দেশ্য। কর্মসংস্থান এখানে আসছে পরোক্ষভাবে উৎপাদন বৃদ্ধির ফল হিসাবে। অতীতেও এই একইভাবে প্রকল্প নির্বাচন এবং নির্ধারণ করা হয়েছিল। কিন্তু কর্মসংস্থানের লক্ষ্য অর্জন বা দারিদ্র দূরীকরণে কোনটিই এর সাহায্য সম্ভব হয়নি। যার ফলস্বরূপ দেশের জনসংখ্যার চার পঞ্চমাংশ দারিদ্র সীমার মধ্যে অবস্থান করেছে। দেশের এক পঞ্চমাংশ লোক অত্যন্ত দরিদ্র (এর এক পঞ্চমাংশ মহিলা) এবং দুই পঞ্চমাংশ শ্রম-শক্তির কোন আয় উপার্জনশীল কাজ নেই। এরই সমপরিমাণ জনসংখ্যার অর্থবেকার। সুতরাং বাংলাদেশের মত গণদরিদ্রের দেশে 'দারিদ্র বিমোচন' পরিকল্পনার মূল উদ্দেশ্য হওয়া উচিত। দারিদ্র বিমোচন পরিকল্পনার মূল উদ্দেশ্য হলে প্রথমেই ঠিক করা উচিত পরিকল্পনাকালে কর্মসংস্থান কত বৃদ্ধি করা হবে। এক্ষেত্রে capital labour ratio, labour productivity ইত্যাদি সম্পদ বিনিয়োগ ও প্রকল্প বাছাইয়ের সূচক হিসাবে ব্যবহারপ্রাসঙ্গিক।

এবারে আসা যাক খাতওয়ারী পরিকল্পনার সংগে গোষ্ঠী ভিত্তিক উন্নয়ন সম্পর্কে। এটিকে অবশ্যই একটি নূতন ধারণা বা পদক্ষেপ বলা যায়। বর্তমান পরিকল্পনার উন্নয়ন বৃদ্ধি এবং দারিদ্র দূরীকরণের জন্য গৃহীত বিশেষ পদক্ষেপ হচ্ছে প্রকল্প নীতি ও বেসরকারী উদ্যোগ বৃদ্ধি এবং কৌশল হচ্ছে খাতওয়ারী পরিকল্পনা এবং কর্মসূচীর সংগে আর্থসামাজিক গোষ্ঠী বা শ্রেণী ভিত্তিক পরিকল্পনা ও কর্মসূচীর সম্পৃক্ত করা। কিন্তু এটা খুবই সন্দেহজনক যে, পূর্ব অনুসৃত খাতওয়ারী পরিকল্পনা এবং কর্মসূচীর সংগে আর্থ-সামাজিক গোষ্ঠী বা শ্রেণী ভিত্তিক পরিকল্পনাকে সম্পৃক্ত করা কতটুকু সম্ভব হবে। কারণ এর পেছনে একটা মৌলিক রাজনৈতিক প্রশ্ন জড়িত। কারণ রাজনৈতিক ইচ্ছার উপরই নির্ভর করবে পরিকল্পনা কতটুকু খাতওয়ারী থেকে গোষ্ঠী ভিত্তিক পরিকল্পনায় বাস্তবায়ন করা যাবে। পুরো পরিকল্পনা প্রক্রিয়াকে যদি দরিদ্র জনগোষ্ঠীর দিকে নিবদ্ধ করা হয় তখন এতে স্বার্থের সংঘাতের উদ্ভব হবে। কারণ এ পর্যন্ত উন্নয়ন প্রক্রিয়াগুলোর সুফলের সিংহভাগ একটি শ্রেণীই ভোগ করছে। অন্যদিকে বিগত উন্নয়ন প্রক্রিয়াগুলো একটি সুবিধাভোগী শ্রেণীর জন্য দিয়েছে। যে মুহূর্তে এই উন্নয়ন প্রক্রিয়া এবং পরিকল্পনা এই শ্রেণীর স্বার্থকে পাশ কাটিয়ে দরিদ্র জনগোষ্ঠীর স্বার্থকে রক্ষা করবার চেষ্টা করবে, সে সময় এই শ্রেণী নিশ্চয় নিক্ষেপ হয়ে বসে থাকবে না। এখন প্রশ্ন বর্তমানে যে ধরনের রাজনৈতিক প্রক্রিয়া এবং যে ধরনের সরকার দেশে প্রতিষ্ঠিত তাদের ক্ষমতার উৎস এই বিশেষ সুবিধাভোগী শ্রেণী, এবং এরাই সরকারের সহায়ক হিসাবে কাজ করে থাকে। সরকার কি তার এই সহায়ক শ্রেণীর স্বার্থকে ব্যাহত করে দরিদ্র জনগোষ্ঠী বা শ্রেণীর স্বার্থকে রক্ষা করবার জন্য অংগীকারবদ্ধ? এতে তাদের সহায়ক গোষ্ঠী কি রাজী আছে? যদি তারা রাজী থাকে তাহলেই সরকারের পক্ষে গোষ্ঠীমূলক পরিকল্পনায় যাওয়া সম্ভব। আর রাজী না থাকে তাহলে এই গোষ্ঠী ভিত্তিক পরিকল্পনা কেবল মাত্র এটি একটি অবাস্তব কল্পনা বা প্রবোধ বাক্য ছাড়া কিছুই নয়।

খাতওয়ারী পরিকল্পনা থেকে গোষ্ঠী ভিত্তিক পরিকল্পনায় যাওয়া, বর্তমান প্রশাসনিক ব্যবস্থাতে সম্ভব নয়। বিশেষ করে প্রশাসনিক বিকেন্দ্রীকরণ এর এবং সেই বিকেন্দ্রীক পর্ষায়ে থেকে সমস্ত স্থানীয় পরিকল্পনাকে জাতীয় পর্যায়ে সংযুক্ত করতে হলে বর্তমান প্রশাসনিক রদবদল প্রয়োজন। অর্থাৎ প্রশাসনকে সংস্কার করে গণমুখী করতে হবে। বর্তমান প্রশাসনকে সংস্কার করে, গণমুখী করে, গোষ্ঠী ভিত্তিক পরিকল্পনা মুখী করতে গেলে এই প্রশাসনিক কাঠামোতে বর্তমানে যারা সুবিধা ভোগ করছেন, তাদের সংগে স্বাভাবিকভাবেই স্বার্থের সংঘাত ঘটবে। কোন সরকারই বর্তমান প্রশাসনিক কাঠামোর সংগে স্বার্থের সংঘাতে আসতে চায় না। সুতরাং নূতন পদক্ষেপের জন্য সরকারকে যে সব অসুবিধা গ্রহণ এবং বর্জন করতে হবে তার জন্য সরকার প্রস্তুত আছেন কি? বিশেষ করে সমষ্টি পরিকল্পনা থেকে বিকেন্দ্রীকৃত অংশগ্রহণমূলক পরিকল্পনায় যেতে হলে যে কঠিন কৃচ্ছতা সাধনের প্রয়োজন তার জন্যও সরকার প্রস্তুত আছেন কি?

এবার আসা যাক স্বনির্ভর অর্থনীতির ব্যাপারে। আত্মনির্ভর হতে হলে, সে জন্য আভ্যন্তরীণ

### জোহরা : চতুর্থ পরিকল্পনা

সম্পদ সংগ্রহ করতে হবে এবং আত্যন্তরীণ সম্পদ আহরণ করতে গেলে দেশে কতগুলো মৌলিক সংস্কারের প্রয়োজন হবে। যেমন-ভূমিসংস্কার, রাজস্বনীতির সংস্কার, মুদ্রানীতির সংস্কার ইত্যাদি। এই সংস্কার অবশ্যই একটা গোষ্ঠীকে আক্রান্ত করবে। এখন প্রশ্ন এই জাতীয় সংস্কার গুলো যে গুলো রাজনৈতিকভাবে অপ্রিয়, অর্জনপ্রিয় কিন্তু বর্তমান পরিকল্পনার সাফল্যের জন্য অবশ্য প্রয়োজনীয়, সেগুলো করবার মত পরিস্থিতি এবং অঙ্গীকার বর্তমান রাজনৈতিক প্রক্রিয়া দিতে প্রস্তুত আছেন কি? যদি দিতে না পারে তবে দেশকে আত্মনির্ভর অর্থনীতির দিকে এগিয়ে নেওয়া কখনই সম্ভব নয়।

স্বনির্ভর অর্থনীতির ক্ষেত্রে আরও একটি মৌলিক প্রশ্ন হচ্ছে, আত্মনির্ভরতার দিকে অগ্রসর হওয়াটা দাতা দেশে বা সংস্থাগুলো কতটুকু মেনে নেবে। এটা অপ্রিয় হলেও সত্যিকার, এতে তারা মোটেও খুশী হবেনা। সুতরাং তাদের সংগে সরকারের একটা সংঘাত লাগবে। এই ধরনের সংঘাত-এ টিকে থাকতে হলে যে ধরনের আত্মত্যাগ এবং কৃচ্ছতার প্রয়োজন তার জন্য বর্তমান সরকার কতটুকু প্রস্তুত?

এই সব প্রশ্নগুলোই মৌলিক রাজনৈতিক প্রশ্ন। পরিকল্পনা কেবল মাত্র একটি অর্থনৈতিক প্রক্রিয়া নয়। এর একটি রাজনৈতিক, সামাজিক প্রেক্ষিত আছে। বিশেষ করে কোন দেশের রাজনৈতিক প্রক্রিয়া যদি পরিকল্পনার বিশ্বাস না করে, পরিকল্পনার প্রতি বিশ্বস্তভাবে অঙ্গীকার বদ্ধ না হয় তাহলে কোন পরিকল্পনাই সফল হতে পারে না।

সুতরাং রাজনৈতিক প্রক্রিয়ার ক্ষেত্রে সবচেয়ে বড় পূর্ব শর্ত হচ্ছে পরিকল্পনার প্রতি তার বিশ্বাস। পরিকল্পনার প্রতি একটি অঙ্গীকার এবং প্রশাসনের মধ্যে একটি দায়বদ্ধতার সৃষ্টি। কারণ এই দায়বদ্ধতা থেকেই জাবাবদিহীর একটা প্রশ্ন আসে। প্রশাসনকে মনে রাখতে হবে, তারা সরকারের কাছে জনগণের কাছে নৈতিক দিক থেকে অর্থনৈতিক দিক থেকে এবং রাজনৈতিক দিক থেকে দায়বদ্ধ। এর পর আসছে শৃংখলা সম্পূর্ণ ব্যাপার। পরিকল্পনাকে সফল করতে হলে প্রতিটি কার্যকলাপকে শৃংখলার মধ্যে আনতেই হবে। কারণ একদিকে লক্ষ লক্ষ টাকা ব্যয় করে পরিকল্পনা প্রস্তুত করে অন্যদিকে খামখেয়ালীভাবে পরিকল্পনা বহির্ভূত কাজ করলে, স্বৈচ্ছাচারিতার আশ্রয় নেওয়া হলে, পরিকল্পনার প্রয়োজন আছে কি? কারণ একটি দায়বদ্ধতা, পরিকল্পনার প্রতি বিশ্বস্ততা ও অঙ্গীকারবদ্ধতা এবং এই ভিন্নধর্মী পরিকল্পনাকে চালানার জন্য উদ্ভূত সমস্যাগুলো মোকাবেলার জন্য বিশ্বস্তভাবে প্রতিশ্রুত রাজনৈতিক প্রক্রিয়াই হচ্ছে চতুর্থ পাঁচশালা পরিকল্পনায় গৃহীত ভিন্ন ধর্মী ধ্যান ধারণা বাস্তবায়নের পূর্ব শর্ত।

## SELF – RELIANCE IN THE FOURTH FIVE YEAR PLAN OF BANGLADESH

S. AHMAD\*

### 1. INTRODUCTION

'Increased self-reliance' is one of the three main objectives of the Fourth Five Year Plan (FFYP) of Bangladesh. In this paper 'self-reliance' is defined as reduction in the dependence of the Bangladesh economy on foreign resources for its development needs. Here an attempt is made to estimate the foreign resource need for FFYP of Bangladesh and to examine whether increased self-reliance will be achieved in the terminal year of the plan. Parameters used in estimation of foreign resource needs are described in section 2. The Planning Commission estimates and the Author's estimates of foreign resource needs are given in section 3 and 4 respectively. Finally a conclusion is added in section 5.

### II. PARAMETERS USED IN ESTIMATION OF FOREIGN RESOURCE NEED

#### 2.1. *Growth Rate of GDP*

Gross Domestic Product (GDP) was Tk. 14507 million in 1959/60 and increased to Tk. 32414 in 1984/85 in constant prices of 1959/60, giving a historical annual compound growth rate of GDP 3.3 per cent. Growth rate of GDP achieved during the TFYP was 3.8 per cent. Target growth rate of GDP per annum is assumed to be 5.0 per cent during the FFYP. Compared to the historical growth rate between 3.4 per cent per annum, the target growth rate for the FFYP appears to be unachievable. However, projections of GDP for the period 1990/91-1994/95 are made using the target growth rate of 5.0 per cent which has been used to estimate foreign resource needs by the author's estimates as well as Planning Commission's.

#### 2.2. *Domestic Saving*

Accepting the domestic saving data at its face value, the average propensity to save over the period 1959/60-1983/84 was about 7 per cent, but the average saving rate declined from 4.2 per cent in 1984/85 to 3.8 per cent in 1989/90 (FFYP). Perhaps these data are sufficient to indicate the deteriorating performance of the Bangladesh economy in domestic resource mobilization during the TFYP compared to earlier period.

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\* Professor, Department of Economics, University of Dhaka.

The available data on savings reveal that the marginal saving rate tends to exceed the average saving rate so as to produce a rising average saving rate through time. This conclusion is confirmed by statistical analysis. Adopting the simple Keynesian saving function, and regressing the level of domestic saving on GDP over the period 1959/60-1983/84, we have obtained the following result :

$$S_t = -489 + 0.09 Y_t \quad R^2 = 0.32 \quad DW = 1.69 (2.1) \\ (t = -0.75) \quad (t = 3.16)^* \quad \text{Period : 1959/60 – 1983/84}$$

where the units of measurement are in million taka. This function is used to project the gross domestic saving during the 1989/90-1994/95 in author's estimation of foreign resource needs because this function has the advantage that  $Y_t$  is predetermined by the growth rate assumed so that the level of saving associated with the assumed growth rate can be predicted with some confidence. Even though other important variables are found to be important in explaining variations in domestic saving, they may not be easily predictable in the future, and therefore, the future level of saving to meet investment requirements at any assumed growth rate would be equally unpredictable [1; 53-71].

However, in saving projections during the FFYP for Planning Commission estimates of foreign resource need, average saving rate is assumed to be 5.68 per cent, which is derived from the Planning Commission data that average saving rate was 3.8 per cent in 1989/90 and assumed to be 7.1 per cent in 1994/95.

### 2.3. Investment Requirements

The estimation of investment requirements for growth first requires an estimate of ICOR. If this estimate is based on historical time series data, it is required to be satisfied that the ICOR, which has prevailed in the past, will also prevail in the future over the planing period. Over a short period, constancy of the ICOR may not be an unreasonable assumption unless the country is emerging from a prolonged depression or there is envisaged a change in the structure of investment towards either more or less capital-intensive industries.

Attempts have been made to estimate the capital-output ratio statistically using regression analysis by Ahmad [1; 37-52]. A reasonable estimate of the capital-output ratio is not obtained because year by year there is extreme variability in the quantity of investment associated with a given change in output. Under the circumstances, we have taken the period as a

whole and estimated the ICOR ( $k$ ) by applying the growth formula  $g = s/k$  so that  $k = s/g$ . The average investment ratio (comprising domestic and foreign saving) over the period 1959/60-1983/84 was 0.107 and the average rate of growth of GDP was 0.033, giving an estimate of  $k$  of 3.2424. Ahmad obtained two estimates of  $k$ : one is 2.5233, the average of ICOR for the years 1959/60-1983/84 and the other is 3.42, which is calculated using the

formula  $k = \frac{\sum_{t=1}^{23} I_t}{\Delta GNP}$  [1; 150]. Our estimates of ICOR are comparable with those ICORs ( $k = 2.6303$  for period 1976/77 - 1981/82;  $k = 2.6304$  for period 1982/83 - 1986/87;  $k = 2.8934$  for period 1987/88 - 1991/92;  $k = 3.3274$  for period 1992/93 - 1996/97 and  $k = 3.8265$  for period 1997/98 - 2001/2) used by Rahman [3; 62]. Since the FFYP assumed the target growth rate of GDP as 5.0 per cent and average gross investment rate as 15.8 per cent during the period 1990/91-1994/95, it implicitly assumed ICOR of 3.17 for the plan period.

Among the estimates of the ICORs,  $k = 2.5233$  and  $k = 3.17$  are used in author's estimation of foreign resource need.  $k = 2.5233$  is considered as an estimate on lower side and  $k = 3.17$  as an estimate of upper side. These two estimates are used for estimation of investment requirements for the FFYP by the author. The use of  $k = 3.17$  will enable the author to compare the estimates of the investment requirements with those of the Plan estimates which have used  $k = 3.17$ . However, once ICOR is known, the investment requirement in period  $t$  are estimates as  $(g^* \cdot k) Y_t$  where  $g^*$  is the target growth rate of GDP.

#### 2.4. Import Requirements

The estimation of import requirements for growth requires an estimate of incremental output-import ratio ( $m = \frac{Y}{M}$ ). This ratio can be calculated in an analogous way to the estimation of the ICOR by using the growth formulae  $g = M^*m$  where  $M^*$  is the historical ratio of imports to income ( $M/Y$ ). Thus  $m = g/M^*$ . The average import-output ratio over the period 1959/60-1983/84 was 0.103 and the average historical growth rate was 0.033 giving an historical estimate of 0.32 for  $m$ . Import requirements in successive years of FFYP may be estimated as  $(g^*/m) Y_t$ . Since in this approach it is not possible to attach any statistical significance to the estimate of  $m$ , we have used an alternative approach to estimate import requirements.

An alternative approach to the estimation of import requirements, which can be derived from the growth formulae, is to disaggregate imports into

investment goods and consumption goods and to estimate the import coefficients attached to investment and consumption. This approach has the advantage that in moving to a higher growth path it allows for a change in  $m$  if the import coefficient of investment expenditure differs from that of consumption expenditure. The ratio  $m$  may rise or fall depending on the relation between the change in the growth rate and the change in import requirements as the investment ratio rises.

From the growth equation  $g = M^*m$ , we can write

$$g = (M^*_I + M^*_C) m \quad (2.2)$$

where  $M^*_I$  = the ratio of investment good imports to income and  $M^*_C$  = the ratio of consumption good imports to income. Now  $M^*_I$  and  $M^*_C$  can be written as :

$$M^*_I = \frac{M_I}{Y} = \frac{M_I}{I} \cdot \frac{I}{Y} \quad (2.3)$$

$$\text{and } M^*_C = \frac{M_C}{C} \cdot \frac{C}{Y} \quad (2.4)$$

where  $M_I$  = investment good imports and  $M_C$  = consumption good imports,  $I$  = investment,  $C$  = consumption, and  $M_I/I$  and  $M_C/C$  are the import coefficients of investment and consumption, respectively. Substituting equation (2.3) and (2.4) in (2.2), we can obtain :

$$\frac{\Delta Y}{Y} = \left( \frac{M_I}{I} \cdot \frac{I}{Y} + \frac{M_C}{C} \cdot \frac{C}{Y} \right) \frac{Y}{M} \quad (2.5)$$

Multiplying both sides by  $Y$  and  $M$ , and dividing by  $Y$  gives,

$$M = \frac{M_I}{I} \cdot I + \frac{M_C}{C} \cdot C \quad (2.6)$$

With data on  $M$ ,  $I$  and  $C$ , equation (2.6) can be estimated and the parameter values (import coefficients) on  $I$  and  $C$  can be used for forecasting import requirements in the future consistent with the levels of investment and consumption associated with the target growth rate of GDP.

Fitting the equation (2.6) to the Bangladeshi data covering the period 1959/60-1983/84, we have obtained the following result :

$$M = -377.44 + 1035.65 D + 0.07 C + 0.29 I \quad R^2 = 0.68 \quad (t = -0.82) \\ (t=5.62)^* \quad (t=3.10)^* \quad (t=2.63)^* \quad DW = 1.73 \quad (2.7)$$

The result is very much what one might have expected apriori, namely the import coefficient attached to investment expenditure is substantially higher than the import coefficient attached to consumption expenditure. This reflects the fact that Bangladesh is heavily dependent on investment good imports, while a much higher proportion of consumption expenditure is on domestically produced goods and consumption good imports are fairly strictly controlled. Furthermore, the coefficient of C and I are statistically significant at 1 per cent level. This is the basic equation used for forecasting future import requirements in author's estimation of foreign resource needs. Like the savings function to be used, this import function also has the advantage that the independent variables are predetermined by the annual target growth rate and the associated investment requirements.

It should be noted that according to the two-gap model, imports are needed for development purposes and for this reason, we have taken imports (CIF) so that only some services imports directly required for growth purposes are included into our imports. Consequently, a small portion of service imports which do not contribute directly to growth is not considered in estimation of export-import gaps.

The Planning Commission Projected the imports requirement taking 1989/90 as the base years; the merchandise imports was Tk. 11,36,00 million in 1989/90 and Tk. 14,62,40 million in 1994/95 implying an annual compound growth rate of imports to be 5.18 per cent during the FFYP.

### *2.5 Exports of Goods and Services*

Export promotion has received considerable attention in Bangladesh since 1960. Although exports do not form a large share in GDP, they are the main source of foreign exchange earnings. The composition of exports has changed drastically during the period 1959/60-1983/84; whereas in early 60's agricultural products dominated exports, from mid 60's exports of manufactured goods accounted for an important rising share. Furthermore, since 60's special efforts have been made to promote industrial development, implying the continuation or even acceleration of changes in the composition of exports.

The question is whether or not past trends are indicative of what lies ahead in the export field in Bangladesh. Two approaches are possible: the first is to break down total exports into their constituents so that the future demand for each commodity or a group of commodities can be assessed and evaluated separately. This approach, while promising, has some

drawbacks, because of inadequacies of time series data on the individual commodity exports from Bangladesh and information on world demand for them. But even if future demand for Bangladesh major exports could be assessed with reasonable accuracy, it would be difficult to match it with comparable data on domestic supply. The second approach is to determine the demand for total exports either on the basis of past trends or according to predetermined rates. This approach has the advantage of making it possible to allow for past levels of substitution on the demand as well as on the supply side; it is this approach which has been adopted. Accordingly, log-linear trend rate of exports is assumed, based on historical experience. In fact, fitting a log-linear trend to past data gives a better statistical fit than any of the more sophisticated exported demand functions. The estimated trend equation for the period 1959/60-1983/84 is:

$$\log X = 2.75 + 0.48 D + 0.015 T \quad R^2 = 0.87 \quad (2.8)$$

(t=34.9)\* (t=8.06)\* (t=3.71)\* DW=1.55

where  $X$  = exports of goods and services in real terms. All the coefficients of the independent variables in equation (7.8) are statistically significant at 1 per cent level. The coefficient of  $T$  in equation (2.8) implies that the average export growth during the period 1959/60-1983/84 was 3.5 per cent per annum.

In estimating the export-import gap, the annual compound growth rate of 3.5 per cent in exports of goods and services has been used by the author.

The Planning Commission has assumed an annual compound growth rate of 7.99 per cent in merchandise exports during the FFYP. This proposed rate appears to be unrealistic in consideration of the historical growth rate of 3.5 per cent per annum but seems to be realistic compared to 10.6 per cent growth rate of exports during the Third Five Year Plan (TFYP). However, in Planning Commission export projections, the growth rate of 7.99 per cent per annum has been used.

### III. FOREIGN RESOURCE NEEDS FOR THE FOURTH FIVE YEAR PLAN: PLANNING COMMISSION ESTIMATES

The FFYP has assumed a target growth rate of 5.0 per cent per annum in GDP from Tk. 69,76,40 million in 1989/90 to Tk. 89,03,40 million in 1994/95. Even though the Planning Commission does not provide the projections of GDP during the years 1990/91-1994/95, these projections are made in Table 3.1.

The plan does not provide an explicit projection of domestic saving for

the years considered, but it does assume that the average propensity to save will rise from 3.8 per cent in 1989/90 to 7.1 per cent in the terminal year of the plan. In other words, the plan states that domestic saving will rise from Tk. 26510 million in 1989/90 to Tk. 63214 million in 1994/95 given an annual compound growth rate of saving of 19.0 per cent. Using the 19.0 per cent growth rate of saving, the domestic saving are projected for the FFYP period.

Table 3.1: Plan Estimates of Saving-Investment Gap and Export Import Gap for FFYP using Parameters Proposed in the FFYP Plan (Bench Mark Year: 1989-90; Tk. millions/1989/90 prices).

A. Saving-Investment Gap

| Year    | GDP (Y)  | Saving (S) | Investment (I)<br>ICOR = 3.17 | I - S   |
|---------|----------|------------|-------------------------------|---------|
| 1989/90 | 69,76,40 | 2,65,10    | 9,17,40                       | 6,52,30 |
| 1990/91 | 73,25,22 | 3,15,42    | 10,21,52                      | 7,06,10 |
| 1991/92 | 76,91,48 | 3,75,29    | 11,37,46                      | 7,62,17 |
| 1992/93 | 80,76,05 | 4,46,52    | 12,66,54                      | 8,20,02 |
| 1993/94 | 84,79,85 | 5,31,26    | 14,10,31                      | 8,79,05 |
| 1994/95 | 89,03,40 | 6,32,14    | 15,70,56                      | 9,38,42 |

B. Export-Import Gap

| Year    | Export (X) | Import (M) | M - X   |
|---------|------------|------------|---------|
| 1989/90 | 4,64,00    | 11,36,00   | 6,72,00 |
| 1990/91 | 5,01,07    | 11,94,84   | 6,93,77 |
| 1991/92 | 5,41,10    | 12,56,73   | 7,15,63 |
| 1992/93 | 5,84,33    | 13,21,83   | 7,37,50 |
| 1993/94 | 6,31,02    | 13,90,30   | 7,59,28 |
| 1994/95 | 6,81,60    | 14,62,40   | 7,80,80 |

Parameters proposed in the FFYP:

Growth rate of GDP: 5.0%, Growth rate of Savings: 19% Growth rate of investment: 11.35%, Growth rate of exports: 7.99%, Growth rate of imports: 5.318%. US\$ 1=33 Taka.

The plan also does not give projection for investment for the years considered, but it does assume that gross investment rate will rise from 13.15 per cent in 1989/90 to 17.64 per cent in 1994/95. In other words, it has assumed that gross investment will rise from Tk. 91740 million in 1989/90 to Tk. 157056 million in the terminal year of plan in 1989/90 prices giving an annual compound growth rate of investment of 11.35 per cent.

Using the annual compound growth rate of 11.35 per cent for gross investment, the planned investment are projected.

The plan assumes that exports of goods and services will grow at the annual compound growth rate of 7.99 per cent from Tk. 4,6400 million in 1989/90 to Tk. 68160 million in 1994/95. Even though the plan does not explicitly show the projections for FFYP, these projections are presented in Table 3.1.

The plan also assumes that the imports will rise from Tk. 113600 million in 1989/90 to Tk. 146240 million in 1994/95 giving the annual compound growth rate of imports of 5.18 per cent. The projections for imports are not shown in the plan but we have made the import projections in Table 3.1 using 5.18 per cent growth rate of imports.

Table 3.1 shows that saving-investment gaps, according to the Planning Commission estimates, are larger than that export-import gaps in every year of the FFYP. Since the saving-investment gaps are dominant, the foreign resource requirements are equal to these gaps. However, the foreign resource requirement as proportion of GDP is expected to rise from 9.64 per cent in 1990/91 to 10.54 in 1994/95. Thus the increased self-reliant objective of the FFYP will not be achieved even if the economy operates as expected by the Planning Commission.

#### IV. FOREIGN RESOURCE NEED FOR FFYP: THE AUTHOR'S ESTIMATES

The equations and parameter estimates mentioned in the Section 2 are now used by the author to calculate the saving-investment gap and the export-import gap for each year of the Fourth Five Year Plan. First we assume a growth rate of 5.0 per cent, as assumed by the Planning Commission; saving is predicted using the equation (2.1) given the predicted level of GDP. Required investment is estimated given the predicted level of GDP, using two ICORs ( $k=2.5233$  and  $k=3.17$  giving the low and high estimates; imports of goods and services are predicted using equation (2.7) given the predicted consumption level and two estimates of investment requirements; exports of goods of services are predicted by using the historical growth rate of 3.5 per cent implied by the coefficient of  $T$  in equation (2.8).

Table 4.1 reveals that the saving-investment gaps during the FFYP are consistently lower than the export-import gaps in the case of both low and high ICORs, the saving-investment gaps are consistently dominant. Our

experience about the Bangladesh economy tells us to accept the dominant saving-investment gaps (Ahmad, 1989). Since these gaps are estimated measured in 1989-90 prices, consideration of domestic inflation would, of course, widen the saving investment gaps in absolute terms and the export-import gap would widen following a rise in prices of traded goods and a deterioration in the term of trade during the FFYP period.

Table 4.1: Projected Saving-Investment Gap and Export-Import Gap for FFYP Author's Estimates (Bench Mark Year=1989/90/Tk. million/1989/90 Price)

**A. Saving-Investment Gap**

| Year    | GDP (Y)  | Saving (S) | Investment (I)<br>ICOR=2.5233 | Investment<br>ICOR=3.16 | I-S     | I*-S    |
|---------|----------|------------|-------------------------------|-------------------------|---------|---------|
| 1989-90 | 69,76,40 | 6,22,99    |                               |                         |         |         |
| 1990-91 | 73,25,22 | 6,54,37    | 8,80,18                       | 11,05,75                | 2,25,81 | 4,51,38 |
| 1991-92 | 76,91,48 | 6,87,34    | 9,24,18                       | 11,61,04                | 2,36,84 | 4,73,70 |
| 1992-93 | 80,76,05 | 7,21,95    | 9,70,39                       | 12,19,09                | 2,48,44 | 4,97,14 |
| 1993-94 | 84,79,85 | 7,58,30    | 10,18,91                      | 12,80,05                | 2,60,61 | 5,21,75 |
| 1994-95 | 89,03,40 | 7,96,42    | 10,68,70                      | 13,42,65                | 2,72,28 | 5,46,23 |

**B. Export-Import Gap**

| Year    | Consumption (C) | Imports (cif) | Import (cif) | Exports of goods<br>& Services (X) | M(I)-X   | M(I*)-X  |
|---------|-----------------|---------------|--------------|------------------------------------|----------|----------|
| 1989-90 | 63,53,41        |               |              | 8,87,68                            |          |          |
| 1990-91 | 66,70,85        | 7,18,44       | 7,83,86      | 9,18,74                            | -2,00,30 | -1,34,88 |
| 1991-92 | 70,04,14        | 7,54,53       | 8,23,22      | 9,50,89                            | -1,96,36 | -1,27,67 |
| 1992-93 | 73,54,10        | 7,95,43       | 8,67,56      | 9,84,17                            | -1,88,74 | -1,16,61 |
| 1993-94 | 77,21,55        | 8,32,22       | 9,07,95      | 10,33,38                           | -2,01,16 | -1,25,43 |
| 1994-95 | 81,06,98        | 8,73,64       | 9,53,09      | 10,69,55                           | -1,95,91 | -1,16,46 |

Parameters used in this table: Growth rate of GDP: 5.0%; growth rate for goods and service exports: 3.5%; S is estimated by  $S = -489.06 + 0.09Y$  and  $M(I) / M(I^*)$  is estimated by  $M = -377.44 + 0.07C + 0.29I$ ;  $C = Y - X$

Table 4.1 shows that Bangladesh will earn so much foreign exchange that will be more than sufficient to finance the development (required) imports. In reality, imports in Bangladesh includes more than development imports, for which the Planning Commission estimates export-import gaps (Table 3.1) reveal that imports during the FFYP far exceed exports.

The author's estimates of saving-investment gap with  $k=3.17$  are on average 40.0 per cent less than those of the Planning Commission. The

Planning Commission estimates of saving-investment gaps are higher perhaps due to provision of inefficiency of the Government in running the economy. However, the author's estimates suggests that 5.0 per cent annual compound growth rate of GDP would be achieved with smaller foreign resources than those envisaged in the FFYP.

#### V. CONCLUSION

The Planning Commission estimates of foreign resource need for Bangladesh during the FFYP compared to the author's estimates show 40 per cent more dependence on foreign resources. Dependence will increase in the terminal year of the FFYP compared to the beginning year. Evidently, increased self-reliant objective of the FFYP is expected to be remain unfulfilled during the FFYP period.

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## DOMESTIC RESOURCE MOBILIZATION PROSPECTS IN THE FOURTH FIVE YEAR PLAN

OMAR HAIDER CHOWDHURY\*

### INTRODUCTION

The Fourth Five Year Plan (FFYP 1990-95) has been formulated as part of a twenty year perspective Plan (1990-95). Two of the three critical objectives identified by the perspective plan as well as the FFYP are growth in national income and increased self-reliance. In fact, self-reliant growth has been the primary objective of all the previous plans as well. Domestic resource generation plays a central role in achieving the twin objectives of growth and self-reliance and hence its importance in planning exercises in general and for Bangladesh in particular.

Taxes and non-tax revenues constitute the major sources of internal resource generation of a country. Taxes constitute more than 80 per cent of total revenue of the government of Bangladesh and as such we will focus on the tax revenue aspect of the FFYP in this paper.

It may be instructive to briefly review the performance of our earlier Five Year Plan in terms of achieving the target of self reliant growth before analysing the prospects of achieving the goals set for the FFYP. We have tried to identify indicators of self-reliance and that of growth in terms of quantitative targets usually set in the Five Year Plans. Table 1 shows that not only none of these targets were met in any of the Five Year Plans, they in fact missed them by a long shot. The obvious question to ask would then be whether the targets themselves were over ambitious or not.

Bangladesh is one of the poorest countries in the world with a per capita income of around U.S \$ 180 in 1989/90 and a population growth rate of more than 2 per cent per annum. An annual growth rate of GDP of 5.5 per cent as was set for all the three earlier plans to achieve a reasonable standard of living for the common people of the country—the third critical objective of the plan—within a reasonable period of time cannot be termed as over ambitious by any stretch of imagination. More so, when some of the countries (Korea, Singapore, Taiwan etc.) did achieve a much higher rate of growth (around 10 per cent) for a considerable period of time when they were at a similar stage of economic development as Bangladesh is today.

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\* Senior Research Fellow, Bangladesh Institute of Development Studies

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As far as domestic resource mobilization effort is concerned, a recent study showed that the tax effort (tax to GDP ratio) of Bangladesh in mid 1980's was less than its neighbours such as India, Pakistan, Sri Lanka, Burma, Indonesia etc. who are in a similar stage of economic development as Bangladesh [1]. The ranking remained low even after taking into account differences in per capita income among these countries. Table 1 shows that the tax effort of Bangladesh has deteriorated since mid eighties and as such our relative ranking in terms of domestic resource mobilization effort with other countries in similar socio-economic position has deteriorated further.

Table-1: Target and Achievements in Five Year Plans

|   | FFYP<br>(1973-1978) |        | SFYP<br>(1980-85) |        | TFYP<br>(1985-90) |        | FFYP<br>(1990-95) |
|---|---------------------|--------|-------------------|--------|-------------------|--------|-------------------|
|   | Target              | Actual | Target            | Actual | Target            | Actual | Pro-<br>jected    |
| A. Indicators of Growth   |                     |        |                   |        |                   |        |                   |
| 1) Size of the Plan<br>(Tk. crore in base<br>year prices)               | 4455                | 2074   | 17200             | 15297  | 38600             | 27011  | 67230             |
| 2) Annual growth rate<br>of GDP (%)                                     | 5.5                 | 4.0    | 5.4               | 3.8    | 5.4               | 3.8    | 5.0               |
| B. Indicators of self-<br>reliance                                      |                     |        |                   |        |                   |        |                   |
| 1) Contribution of foreign<br>assistance as a share<br>of plan size (%) |                     | 71.9   | 52.7              | 63.5   | 54.5              | 65.0   | 51.7              |
| 2) Revenue surplus<br>(Tk. crore in base<br>year prices)                |                     |        |                   | 6262   | 3385              | 4983   | 1283              |
| 3) Tax-GDP ratio in the<br>terminal year of<br>the plan (%)             |                     |        | 9.5               | 8.2    | 9.4               | 7.8    | 9.97              |

Source. Various Plan Documents.

Table 2 shows that total public expenditure as a proportion of GDP—an indicator of government involvement in the economy—has increased from 15 per cent in the FFYP to 18 per cent in the TFYP. It should be remembered that composition of public expenditure rather than its level, is a more important determinant of growth and income distribution in the economy. Table 2 shows that the share of development expenditure in the overall public expenditure increased to around 60 per cent in the SFYP but fell sharply to around 45 per cent by the TFYP.

Table-2: Public Sector Involvement in the Economy

|   | FFYP<br>(1973-78) | SFYP<br>(1980-85) | TFYP<br>(1985-90) |
|---|-------------------|-------------------|-------------------|
| 1. Total Public Expenditure<br>As a proportion of GDP               | 15                | 17                | 18                |
| 2. Annual Development Plan as a<br>Proportion of Public Expenditure | 52                | 60                | 45                |

Source: Calculated from Budget Documents of Statistical Yearbooks of Bangladesh.

The brief discussion above in terms of targets and achievements of the previous plans suggest that not only we have not been able to meet reasonable targets for achieving self-reliant growth but the realized achievements do not conform with our priorities as reflected in the objectives of the plans. If realized efforts are any indicator of our intents then pronouncements in the plan documents would seem to be no more than mere rhetorics.

#### TAX SYSTEM OF BANGLADESH

Taxes in Bangladesh can broadly be divided into direct and indirect taxes. Direct taxes comprise a little more than 20 per cent of total tax yield of Bangladesh and the rest is accounted for by indirect taxes.

Direct tax in Bangladesh comprises tax, and taxed on income (income tax, corporation, tax, agricultural income tax) and taxes on property (wealth tax, gift tax, registration non-judicial stamp). Income taxes account for about 15 per cent of total taxes.

Indirect taxes comprise primarily of import duty, sales tax on import and excise taxes. Import duty (37.7%) and sales tax on import (9.2%) accounted for about 47% of total tax yield in 1989/90. In other words, taxes on import bears the lion's share of our tax revenue. Excise taxes on the other hand, accounted for around 30 per cent of the total tax yield in 1989/90.

One of the primary objectives of a tax system of a developing country such as Bangladesh is to mop up a large proportion of tax revenue as a proportion of national income over time. Frequent legislative measures to enhance the rate structure and/or expand the tax base to increase tax effort is not politically expedient. Hence, the tax structure should be sufficiently income elastic so that the tax effort (tax to GDP ratio) will increase automatically with economic development. Tax elasticity with respect to income can be calculated by estimating response to tax yield after separating those changes in revenue that took place automatically in

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response to growth in the national income from changes in revenue that occurred as a result of discretionary changes which is called the buoyance of tax.

Table-3: Estimated Buoyancies and Elasticities of Major Tax Heads 1972/73- 1989/90

| Tax head         | Average <sup>1</sup><br>buoyance | Average <sup>2</sup><br>built in-<br>Elasticity | Contribution of <sup>3</sup><br>Discretionary<br>Measure (per cent) |
|------------------|----------------------------------|---|---|
| Income Tax       | 1.53                             | 0.94  | 38.6  |
| Other Direct Tax | 1.28                             | 0.47  | 63.2  |
| Import Duty      | 1.12                             | 1.01  | 9.8   |
| Sales (import)   | 1.15                             | 1.19  | -3.5  |
| Excise           | 1.13                             | 0.70  | 38.0  |
| Total Tax        | 1.15                             | 0.90  | 21.7  |

Note: 1. Estimated from unadjusted tax revenue data.

2. Estimated from tax revenue data that have been adjusted for the effects of discretionary changes employing the proportional adjustment method.

3. Estimated as the difference from 100 per cent of the ratio of built-in-income elasticity to buoyancy.

Table 3 shows that the buoyancies and elasticity of major tax heads in Bangladesh vary substantially. The value of buoyancy vary from a low of 1.12 for import duty to a high of 1.53 for income tax. The overall buoyancy of the tax system is 1.15. On the other hand, sales tax on import is the only elastic tax (1.19). The overall tax system is inelastic (0.90). The table further shows that as much as 21.7% of our tax yield in the post-independent period has been due to discretionary measures i.e. enhancement of tax rate and/or expanding tax base by the government.

#### PROJECTING TAX YIELD FOR THE FFYP

It is clear from our discussion on the tax structure of the country that left to itself our tax effort will decrease as automatic tax yield increases at a slower rate than the rate of increase of the national income. But the planners expect to raise the tax effort of Bangladesh from 7.8 per cent in 1989/90, the terminal year of the TFYP, to 9.3 per cent in 1994/95, the terminal year of the FFYP. But there is little discussion on how this increase in tax effort is going to be realised other than that the value added tax (VAT), to be introduced in 1991, is expected to increase indirect tax yield.

In the absence of any detailed discussion about the policies for improving the tax revenue we have no option but to assume that

enhancement of tax rates and tax bases to the 1989/90 tax structure will be relied upon to improve the tax effort of the country. In fact, we assume that the future growth in tax revenue will replicate the discretionary changes that took place earlier. It must be pointed out here that as tax rates are enhanced, further increase in much rates become increasingly difficult.

Information about legal tax bases are necessary for forecasting tax yield. Such information are hard to come by and as such one has to make do by using proxy bases. Appropriateness of the proxy bases also depend on whether projections about them are available or not. We have selected proxy bases for the major tax categories for which projections are available in the FFYP as reported in Table 4. It may be mentioned here that in this simple exercise we are attempting to assess the tax revenue implication of the plan assuming that the rest of the plan objectives are fulfilled.

Table-4: Tax Heads and Bases

| Tax head          | Proxy Base                      | Tax-to Base<br>Buoyancy<br>(1973-90) | Annual growth<br>rate of Bases<br>FFYP |
|-------------------|---------------------------------|--------------------------------------|--|
| Income tax        | Non-agricultural<br>value added | 1.32                                 | 5.9                                    |
| Other Direct Tax  | Non-agricultural value<br>added | 1.11                                 | 5.9                                    |
| Import Duty       | Import                          | 0.73                                 | 5.1                                    |
| Sales (Import)Tax | Import                          | 0.81                                 | 5.1                                    |
| Excise Tax        | Value added in Industries       | 0.98                                 | 9.1                                    |
| Other Taxes       | GDP                             | 1.05                                 | 5.0                                    |

Source: Col. (3) Estimated by fitting a log Linear function.

Col. (4) Calculated from FFYP (1990-95).

Table 5 reports our projection of tax revenue for the FFYP based on tax-to-base buoyancy estimates and growth rates of tax bases reported in Table 4. It may be noted that the implicit buoyancy of the tax structure according to our estimates turn out to be 1.25 which is higher than our estimate for the 1972/73-1990 period (Table 3). Yet our projection of tax revenue for the FFYP is less than that calculated by the Planning Commission. Implicit buoyancy of the tax structure for the Planning Commission estimate is 1.8 which is by far much higher than any estimate made so far for the Bangladesh tax system. It would thus be reasonable to argue that the FFYP projection of tax yield will meet the same fate in terms of realization as the projections for previous plans noted earlier.

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Table-5: Projection of Tax Revenue for FFYP

|                    | Taka in Million (1989/90 Prices) |         |         |         |         |         |           |
|--------------------|----------------------------------|---------|---------|---------|---------|---------|-----------|
|                    | 1989/90                          | 1990/91 | 1991/92 | 1992/93 | 1993/94 | 1994/95 | Total     |
|                    | (1)                              | (2)     | (3)     | (4)     | (5)     | (6)     | (1990-95) |
| Direct Tax         | 12419                            | 13341   | 14332   | 15397   | 16542   | 17772   | 77384     |
| Income Tax         | 8750                             | 9432    | 10167   | 10959   | 11813   | 12733   | 55104     |
| Other Direct Tax   | 3669                             | 3909    | 4165    | 4438    | 4729    | 5039    | 22280     |
| Indirect Tax       | 45119                            | 47721   | 50500   | 53471   | 56647   | 60047   | 268386    |
| Import Duty        | 21668                            | 22475   | 23312   | 24180   | 25079   | 26013   | 121059    |
| Sales (Import) Tax | 5309                             | 5528    | 5756    | 5994    | 6242    | 6500    | 30020     |
| Excise Duty        | 17000                            | 18516   | 20167   | 21966   | 23925   | 26059   | 110633    |
| Other Taxes        | 1142                             | 1202    | 1265    | 1331    | 1401    | 1475    | 6674      |
| Total              | 57538                            | 61062   | 64832   | 68868   | 73189   | 77819   | 345770    |

Source: Col. (1) Planning Commission

Col. (2-6) Estimated by using parameters from Table-4.

### **TAX REFORM**

Government expenditures in Bangladesh was shown to be increasing rapidly while resource generation effort has been lagging behind and as a consequence surplus necessary for continuing the development effort fell substantially short of requirement according to plan projections leading to non-fulfilment of growth targets. The gap between public expenditure and domestic resources have been narrowing down continuously in recent years so much so that in 1988/89 the government could not even provide its current account expenditures from internal revenue generation. Increasingly government had to depend on foreign borrowing for meeting the development expenditures which were shrinking in real terms compared to the initial projections. Ultimately both the objectives of achieving growth and self-reliance have been frustrated as was observed earlier.

Over the years Bangladesh has accumulated a large stock of domestic and more importantly foreign debt. Once the stock of debt reaches as given share of GDP, the net flow of resources is likely to change direction. The higher the rate of interest and the more reluctant are lenders to keep lending, the more quickly will this change occur. Accumulated foreign debt as a proportion of GDP of Bangladesh stood at around 55 per cent in 1989 and interest payments on foreign debt accounted for more than 20 per cent of merchandise export. On top of this the recent changes in international politics suggest that the aid climate is going to become increasingly difficult for Bangladesh in future. Hence the country may reach

the critical point sooner than anticipated when repayment on loans will be higher than foreign aid receipts. In that situations if tax revenue to GDP does not rise significantly then either one or both the objectives of growth and self reliance will continue to remain as wishful thinking.

Countries with low elasticities of their tax system such as Bangladesh will find it more difficult to generate the necessary fiscal surplus to meet these objectives through automatic tax increase. Elsewhere we have discussed the inherent weaknesses of Bangladesh tax structure: That the tax base is very narrow; less than 1 per cent of the population pay income tax. Agriculture accounting for about half of GDP share less than 5 per cent in the overall tax revenue: only about six items account for about three quarters of tax revenue in the domestic goods and services head and that import taxes bear the lion's share of tax yield[1].

Multiplicity of points of levy and indiscriminate taxation over a wide range of inputs and final products cause the pyramiding of tax and high production costs and distortions in the prices of domestic products. In principle, the commodity tax which creates the least distortion is a retail sales tax on the final consumer. In recent years, growing attention has been given to removing the distortions caused by indirect taxes without sacrificing revenue. It is increasingly realised that value added tax (VAT) is the best substitute for existing domestic commodity taxes.

Recently International Agencies are putting pressures on developing countries to introduce VAT in their tax system. As we argued above, theoretically this is a very good system but appropriateness of a tax system depends on the existing socio-political institutions and level of economic development of a country. VAT has been introduced in many countries in recent years. The result has been mixed as would be expected. Success or failure of the system depended on the existence or absence of preconditions determining the suitability of VAT in these countries. When a country becomes increasingly dependent on foreign aid it starts to lose decision making power in running its own economy. International agencies starts imposing there readymade uniform solutions for all the countries without taking into account the differences in basic socio-economic feature of these countries. When these policies fail then they are suddenly awakened to the fact that the governments are inefficient and corrupt and cannot manage their economies properly. Common people in the process continue to suffer due to poor administrative capability of the government and wrong policies imposed by foreign agencies as their own governments

have to surrender their decision making power due to overwhelming dependence on foreign aid for running the domestic economy.

It is stated that VAT in a limited form is going to be introduced in Bangladesh from 1991 fiscal year to improve, among others, the elasticity of the tax structure. Theoretically there is no reason as to why the tax structure of Bangladesh should be inelastic. Direct tax rates are very progressive while ad valorem tax rates imply proportional tax rates for indirect taxes. Therefore, as national income increases yield from direct taxes should increase at a faster rate since higher proportion of increased income would be paid in taxes. Elasticity of tax bases should determine the overall income elasticity of indirect taxes. It was found that all the major tax bases of indirect taxes in Bangladesh are elastic [1]. Hence, there is no reason why even overall indirect tax yield should be inelastic. Success of a tax system does not depend only upon its tax structure and rates but also on how it is administered. This in turn depends, among other things, on simplified procedures and rendering the administrative process smoother. One of the major weaknesses of our tax system is its poor implementation. The success of value added tax on the other hand, crucially depends on efficient administration and developed accounting system in the economy. One need not argue about the state of accounts keeping in ordinary transactions in Bangladesh while as noted above poor administration is the primary weaknesses of our tax system. Hence, introduction of VAT without improving these might spell disaster for the country as was the experience of Guatemala when it was first introduced there in 1983.

But the good news for Bangladesh is that VAT is going to be introduced only in major manufacturing items which already account for the lion's share in excise taxes and on sales tax. Sales in Bangladesh are taxes on import only. Therefore, once the import duty is paid there is no way one can avoid paying sales tax. This is why sales tax is the only elastic tax in Bangladesh. The major manufacturing items are already contributing handsomely in the present tax system. Therefore, it seems that the same old tax system will continue under a new name since the real problem of improving the tax administration or the accounting system is being avoided. This can only satisfy donor agencies that we have a more modern tax system but definitely not going to have any impact on increasing the tax yield of the country.

In the final analysis governments will have to realise that economic development is a painful process. Determined efforts are needed for

coming out of the vicious circle of low resource mobilisation coupled with high current expenditures leading to inadequate development effort finally resulting in dismal economic performance making resource mobilisation effort all the more difficult would require prolonged sacrifices in terms of restricted consumption and hard work. Rhetorics alone as we have observed will not do the trick. Government will have to set example by disciplining its own house. Checking overall expenditure growth and rationalising sectoral share of the existing composition of expenditure to increase the share of revenue surplus in the overall development effort of the country. In other words, public utterances will have to match the performance.

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## STRUCTURAL ADJUSTMENT POLICIES, EXTERNAL SECTOR AND THE FOURTH PLAN

ABDUL BAYES\*

### 1. INTRODUCTION

Faced with mounting economic pressures, Bangladesh undertook a three year structural adjustment policies/programmes. Advised by the IMF and the World Bank, the programmes (started in FY87) constituted an orthodox short-run macro-stabilization policies that consider the excess demand in the economy as the villain of piece. The demand management approach is rooted in the monetarist view that worsening of the balance of payment position is a clear indicator of the excess spending in the economy stimulated by an expansionary monetary policy. A strong and viable balance of payment position is the main concern of the orthodox school and hence macro-economic management always emphasises curtailment of aggregate expenditure to restore the external balance. To achieve both internal and external balance, an arsenal of policies are introduced. These are: tight monetary and fiscal policy (Demand management policies); withdrawal of subsidies, financial and trade liberalization (structural policies); and denationalization and privatization (Institutional policies). The policies are supposed to contain the trade gap, help shift resources away from less productive to more productive sectors and promote an environment where the market would provide the signal for resource allocation.

The policies had a fair amount of trial during the third plan period<sup>1</sup>. In fact, till today, Bangladesh is experiencing a wave of trade and industry reforms that has never been seen before. But the policies, it is being alleged, could not produce the desired result. On the external sector, the structural adjustment policies had limited positive effect [2]. On the economy as a whole, macro-economic stability was still maintained but this was more a reflection of depressed activity levels and low level equilibrium in the economy. The failure was, to an extent, due to the severe floods

\* Associate Professor, Department of Economics, Jahangirnagar University.

1. The process of privatization, denationalization and withdrawal of subsidies started from late seventies. But a comprehensive adjustment package was delivered during SAF period.

which adversely affected government's routine programmes but to a larger extent, because of inappropriate policies and a lack of commitment to those programmes.

## 2. OBJECTIVES

Bangladesh entered into a regime of Enhanced Structural Adjustment Facilities (ESAF) from 1990. It is being said that the ESAF conditionalities are tougher than those of SAF conditionalities. The Fourth Plan falls under the preview of ESAF conditionalities.

The objective in this paper is to consider the projections and strategies of the Fourth Plan with regard to the external sector of Bangladesh in the light of the adjustment policies. The external sector is chosen since striking a balance in the external sector is the heart of orthodox package. Government's intention notwithstanding, the eventual success of the structural adjustment programmes still remains very much in doubt. One of the purposes in this paper is to hypothesise, that in the absence of credibility, the reforms are likely to fail and prove unsustainable.

## 3. TARGETS AND STRATEGIES IN THE FOURTH PLAN

### 3.1. Imports

During the Third plan period (1985-90), the realized rate of growth of total import was about 8% per annum as compared to the projected rate of about 3%. The Fourth Plan, on the other hand, projects the growth rate for imports at 5.2% per annum. Over the whole plan period, the trade gap and the balance of payment gap are supposed to grow at 4.5% and 5.5% respectively. The projected fall in the growth of imports and the reasons shown in the document can be contested on more than one counts.

The Fourth Plan assumes, as did other plans, foodgrain self-sufficiency and that is one of the reasons as to why the import growth rate assumption is conservative. The plan envisages that the share of foodgrain import will be only 0.7% of the total imports as compared to 11% during the Third Plan. For a number of reasons this may not be so: a) there has been no significant upward deviation from trend foodgrain production to warrant such an optimistic forecast; b) the structural adjustment policies that initiated withdrawal of fertilizer subsidies from agriculture, the squeeze on credit available to farmers—all worked together to make foodgrain production expensive at least for the small and the marginal farmers. However, it could possibly be close to the reality if there occurred a substantial investment in irrigation, and infrastructure (in fact that was the idea). But progress in this case is not noteworthy, c) Even if foodgrain

production is increased as is projected, there is no guarantee that the government would not import foodgrain. The recent episodes with commercial purchase after the bumper crop, is a pointer to this effect. The overemphasis of food security overlooked its inter-linkages with domestic agricultural policy, self-sufficiency notwithstanding, d) In the event of a rise in production the procurement programme would be constrained by the donor's conditionality to reduce govt's expenditure.

Besides foodgrain imports, there is likely to be more imports in aggregate due to import liberalization programmes. With import liberalization process taking effect in the economy, imports showed a rising tendency in both absolute and in relative terms in the last two years of the Third Plan. As a result, although the export growth rate has been strong in absolute terms, it could hardly make any dent to the trade-gap which grew at 6.4% during the Third Plan<sup>2</sup>. The Fourth Plan objective of encouraging imports of "essentials" is not in consonance with the real world situation in Bangladesh. Over the last decade or so, the import basket is dominated by heavy imports of consumer goods and raw materials for consumer goods which may be termed as "non-development" imports (Table1). The significant import liberalization programme beginning in 1985/86 accounted for a higher growth rate in "non-development" imports as compared to "development" imports (capital goods and raw materials for capital goods). In fact the share of development imports came down to 24% in 1989/90 from 30% in 1984/85. To build the edifice of modern industrialization, imports should support production activities in the economy rather than supporting consumption. But that is hardly possible under the kind of trade liberalization going underway.

Table-1: Economic Classification of Imports into Bangladesh

| Items                               | 1984/85     | 1985/86     | 1986/87     | 1987/88     | 1988/89     |
|-------------------------------------|-------------|-------------|-------------|-------------|-------------|
| 1. Consumer goods                   | 32.5        | 32.8        | 32.3        | 37.2        | 39.9        |
| 2. Raw materials for consumer goods | 38.4        | 36.1        | 32.8        | 35.0        | 36.1        |
| 3. Non Development Imports (1+2)    | <u>70.9</u> | <u>68.9</u> | <u>65.1</u> | <u>72.2</u> | <u>75.5</u> |
| 4. Capital goods                    | 12.5        | 12.3        | 13.4        | 10.6        | 10.3        |
| 5. Raw materials for capital goods  | 16.6        | 18.8        | 21.5        | 17.2        | 14.2        |
| 6. Development Imports (4+5)        | <u>29.1</u> | <u>31.1</u> | <u>34.9</u> | <u>27.8</u> | <u>24.5</u> |
| 7. Total                            | (100.0)     | (100.0)     | (100.0)     | (100.0)     | (100.0)     |

Source: [4]

2. The trade-gap-GDP ratio which was 11% in 1984-85 remained unchanged in 1989/90 [3, 4].

The Trade liberalization programme is also in conflict with the objective of raising revenue. In Bangladesh, as in other developing countries, trade taxes account for about 35-40% of government revenue. Unless alternative sources of revenues are found out, such a prescription is bound to create problem for the government and in that case government itself may not be truly committed to this programme. Inconsistent are also the objectives of devaluation and liberalization since both are at cross purpose: the former is supposed to widen trade deficit and the latter, to narrow it. The experience of Tanzania, Ghana, Sri Lanka and Argentina bear this out [7].

Two other implication of trade liberalization in Bangladesh context is worth pondering. First, as a result of this policy there was massive imports of consumer durables at the fag end of the Third Plan (as discussed before) and the reserve position dwindled to 1.7 months import from 3.4 months import. Faced with this crisis, the government raised the ceiling for L/C margin to a substantially higher level (initially 100%, latter 50%), credit limit was imposed on bank lending for financing of imports and also government imposed a brake on counter financing facilities by the central bank. All these actions had tremendous adverse affect on trade, industry and above all, on the economy. The hasty retreat from liberalization to control but the staying power of the reform into question. Entrepreneurs reasoned that incurring the entry and exit costs of relocation does not make sense when there is a likely policy reversal. The private sector waited out rather than responding to the price signals perceived to be temporary. The resulting efficiency loss was much larger. This leads to two important conclusions. First, it is not trade liberalization per se but credible trade liberalization that is the source of efficiency benefits. And it is incumbent on the policy makers to ensure that the reform is viewed as sustainable. Second, a distorted but stable set of incentives does much less damage to economic performance, than an uncertain and unstable set of incentives generated by a process of trade reform lacking credibility.

The other implication of trade liberalization, as for as Bangladesh is concerned, is the fact that the country is neighboured by a highly protected market like India. Imports under trade liberalization could make their way to India<sup>3</sup>.

What follows from above is that given different trade-offs in Bangladesh

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3. In fact this is what happened recently. A portion of crude soyabean (later processed at home) and electronics which were largely imported in the wake of liberalization were smuggled out.

(employment and efficiency for example), the country will have to move along with selective tariff barriers to protect the growing manufacturing base. The history of industrialization of NICs and of Japan also tells us that industrialization depends much on containing foreign goods flooding domestic market. However tariff rationalization should be the target so that further distortions in resource allocation could be arrested.

Second, any move towards reform must be well-thoughtout keeping in view the long run implications. Otherwise a hasty retreat may worsen the situation

### **3.2. Exports**

The Fourth Plan envisages an export oriented industrial development keeping in view the principle of comparative advantage. The other objective of the plan is to help the growth of dynamic import substituting industries which would eventually enter into the export market. To fulfil the objectives, flexible exchange rate will be followed, tariff rationalization shall be pursued and imports will be liberalized.

Total export earnings are projected to grow at an annual average rate of 8% per annum in real terms as against an estimated rate 10.6 per cent in the Third Plan period. Given the projected real GDP growth rate at 5% per annum. The export response to domestic output is 1.45. This reflects a strategy of heavy export acceleration since domestic consumers and producers would have to give up an increasing portion of domestically produced commodities for export to markets abroad [3].

The traditional exports are projected to grow at the rate of nearly 4% and those of non-traditional at nearly 10% during the Fourth Plan period. The key actors in the case of non-traditional exports are readymade garments (which comprise about 65% of non-traditional exports and is projected to grow at the rate of about 11%), frozen food and leather. The strong growth of readymade garments during the Third Plan was due to an inroad into the European market. During the Fourth Plan the likelihood of facing quantitative trade restrictions in Europe is very high particularly in view of European integration in the offing. Searching for new additional market is likely to take time. Thus the projection of growth rate at 11% appears to be on the reasonable side. Besides, imported materials comprise about 75% of import value of garments. Of the two other non-traditional exports i.e. leather and frozen foods, the former is primarily commodity intensive and the latter is virtually a primary commodity due to very little processing involved. Both are gain subject to price fluctuations.

Improved incentives for exports were major features of policy changes over the last decade which helped the growth of garments and other non-traditional items. However it would be an exaggeration to describe the experience in the recent past as one of dynamic export growth. The Fourth Plan export target banks on the performance of three key non-traditional items. The commodity concentration is still there; from three traditional to three non-traditional exports. If a turn around in the external sector is viewed then investment on backward linkage activities in garments should be attracted and overall investment policies should be turned to diversify the export sectors so that both foreign and domestic investors positively respond.

Exchange rate adjustment (e.g. devaluation) is advocated by adjustment policies to boost exports and curtail imports. The role of devaluation in boosting exports of Bangladesh is, to some extent, debated. One econometric study reveals that exchange rate adjustments have had positive effects on export growth, especially on non-traditionals. The same exercise attributed the decline in the export of non-traditionals in the last two years of the Third Plan to high currency over-valuation [5]. Another finding, based on price elasticity of demand for exports and imports, observed that devaluation in Bangladesh would not be a desirable step towards increased exports. The same exercise on the import side, showed that to reduce import demand by 26%, Bangladeshi taka needs to be devalued by about 100% [4]. However, it appears from the import intensity of non-traditional items (especially of garments) that the benefits from increased export revenue would be chopped off by the increased import costs. The main constraints to increased exports of non-traditional items are inaccessibility to the developed markets due to higher tariff and non-tariff barriers. Over valued currency and increased cost of production are two sides of the same coin. To get the cost of exports in line, the fix lies, in the long-run, in increased productivity through technological change. Direct subsidies would be better in this case<sup>4</sup>.

The Fourth Plan document states that with the depreciation of Taka by 26.35 in nominal terms, the export growth, in real terms, was 11% during the Third Plan. However, the document admits, there could not be sufficient growth due to inadequate investment. There could not be sufficient growth due to inadequate investment. There is no doubt that, despite some

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4. A recent UNCTAD study showed that devaluation in low income countries is largely ineffective in boosting exports [8]. Another study shows that in a large number of countries devaluation resulted in inflation and recession [7].

### *Bayes: Structural Adjustment*

improvements in recent years, the trade and industry policy regime still remain anti-export bias and militate against the rapid growth of export oriented industries. Even today the most efficient export oriented industry receives an effective assistance ranging from negative to 30%, whereas, the most inefficient import substituting industries (those with negative value added) receive much higher effective assistance to the tune of 70-150%. Unless the effective assistance to export oriented industries are raised and that of import substituting ones are drastically reduced, shift of resources from non-tradeables to tradeables are unlikely to occur. In this context, the recent industrial policy changes are worth citing. The Revised Industrial Policy of 1986 with its due emphasis on the expansion of private sector and on making the public sector more efficient gave some initial impetus to the private sector (such as garments, food processing and textiles) but the progress was much limited due to hesitant and piecemeal implementation. As a consequence, the entrepreneurs (of both home and abroad) perceived the reforms as temporary. The frequent changes in policy options made the entrepreneurs desponded and non-responsive and as a result of their waiting these out, private investment stagnated and the average industrial growth rate hardly reached 3%. Another factor that crowded out private investment is a decline in public investment in private sector supporting activities (e.g. infrastructure)<sup>5</sup>.

The last but not the least is the political instability as perceived by the entrepreneurs. All of these factors point out that a plethora of incentives for export oriented industries is sufficient condition but not necessary. What is necessary is, however, incentives for industrialization in Bangladesh which is unfortunately lacking.

#### **4. BALANCE OF PAYMENT**

The plan aims at containing the export-import gap. Trade gap is projected to grow at 4.5% while the balance of payment gap is assumed to grow at 5.5% programme. The assumed low growth rate in imports and an overestimated growth rate in traditional items (3.6% as against 2.4% in the Third Plan) might have influenced the projections. As a result the trade gap is underestimated. Thus the projected growth rate of trade gap at 4.5% is

5. What happened is that in order to fulfil the target of public expenditure/ GDP ratio, the government diverted expenditure from the economic and social sectors to feed the growing unproductive activities. In spite of openly felt need for increasing public savings, recurrent expenditure appears to have increasing year after year reducing public savings (below 6%, in FY 1989), hurting investment and aid pipeline. This certainly does not show a strong sign of government commitment to the programme.

likely to be exceeded in the Fourth Plan. This however, would be partly neutralised by the higher than projected growth rate of remittance which is projected to grow only at 3.5% per annum as against the realized 13% in the Third Plan.

## 5. CONCLUSION

The Plan document stated that structural adjustment policies had limited desired effect on the external sector but (probably advertently), escaped a detailed discussion. Over the few years, macro-economic stability was somehow maintained but this is more a reflection of depressed activity levels and low level of equilibrium in the economy. The adjustment programme overemphasised macro stability and neglected growth. This is the crux of the problem. If this continues to the future the same equilibrium condition would be repeated during the Fourth Plan.

We shall conclude this paper by saying that the adjustment programmes are likely to be less effective and suffer from credibility problem. There are multiple reasons for the lack credibility but we shall mention the main ones.

### *(1) Inconsistent Policies*

Some of the inconsistencies were already mentioned viz, trade liberalization and devaluation, trade liberalization and raising the share of revenue to GDP, etc. One other fundamental constraint is the presence of a fragile financial market which nullifies the objective of trade reform because, in its presence, bank-rupt firms take the commercial banks down with them, crowding out potential entrants in export oriented sectors. The fragility is also due to ill conceived financial liberalization.

### *(2) Unclear Government Motives and Lack of Commitment*

The credibility of the adjustment programmes are also damaged by the fact that public is not sure about the intention of the government. Is the government undertaking the reforms simply to satisfy the World Bank, IMF and other creditors? Examples are: increasing revenue expenditure in unproductive activities at the cost of economic and social activities and thus satisfying donor's condition of curtailing revenue expenditure or raising fees in public utilities services without reducing system loss.

Though the tax reform agenda has been on the table since 1986, very little progress has been achieved. If the investment level has to be raised, nowhere will the commitment of the government be more important than the area of tax reform in order to make trade reform more effective.

## *Bayes: Structural Adjustment*

### *(3) The Pace and Speed of Adjustment Programme*

The optimal pace of reform that donors perceive (1-3 years) some times obstruct the use of the reforms which depend on complimentary reforms that take a longer time. It must be recognized that some of the adjustment measures, if hastily expected can be painful and even disruptive with respect to other objectives. For example bring the monetary growth down to 15%-16% one month at a time where it is growing at 24 to 25% would dislocate business and other activities as it did in some cases. Again if the tariff reform measures are executed speedily, before the complimentary tax reform measures are put in place, it would surely erode government revenue and adversely affect revenue/GDP rate which is in fact what happened in the first two years of the SAF programme.

### *(4) Political Acceptability*

There are some adjustment programmes which are acceptable to the government but not to the public. There are others acceptable to the public but not to the government. Both parties can be satisfied if an accountable political government can carryout these programmes.

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## THE EXTERNAL SECTOR IN THE FOURTH FIVE YEAR PLAN OF BANGLADESH

SULTAN HAFEEZ RAHMAN\*

### INTRODUCTION

The external sector plays a crucial role in Bangladesh's development effort. In order to achieve the targets of the Fourth Plan, it is essential that external sector objectives be realized. With the launching of the Third Plan, Bangladesh entered into a phase of significant trade liberalization aimed at speeding up the economic growth rate and reducing the burden of external debt. However, the realized growth rate was only 3.9% per annum compared to the targeted rate of 5.4% per annum. In spite of the professed objective of increasing self-reliance by raising the domestic saving rate from 4% to 7% in the terminal year of the Third Plan, the domestic saving rate remained unchanged. The burden of external payments has increased during the Third Plan. The strategy of heavy reliance on external assistance to accelerate economic growth and development has not paid dividends.

It is in this historical backdrop that the Fourth Plan is being launched. It is interesting to note that the same strategy of liberalizing trade with heavy dependence on external assistance is much more clearly reflected in the Fourth Plan. In this paper, our main intention is to examine and assess the objectives of the external sector in the Fourth Plan. The external sector objectives of the Fourth Plan are stated without providing any technical framework from which the targets may have been derived. It was therefore, difficult to assess the Plan objectives. The paper begins with a review of the performance of the external sector during the Third Plan.

### EVALUATION OF THE EXTERNAL SECTOR'S PERFORMANCE DURING THE THIRD PLAN (1985/86-1989-90)

Bangladesh experienced an aggregate export growth of 10.2% per annum during the Third Plan (Table 1). The high export growth rate was made possible by a very high growth rate in non-traditional exports. Growing at an annual compound rate of 20.6% during the Third Plan

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\* Senior Research Fellow, Bangladesh Institute of Development Studies.

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period, non-traditional exports attained a share of 57% of total exports in 1989/90. The share of non traditional exports in 1984/85 was 30%. The strong growth in non-traditional exports caused the Third Plan target to be exceeded by nearly 20%. Readymade garments, leather and frozen foods are the 3 major items of non-traditional exports. Their shares in non-traditional exports were 65%, 12% and 13% respectively, in 1989/90.

The review of export performance during the Third Plan, contained in the Fourth Plan document discussed the relevant magnitudes in absolute terms and provides the basis for subsequent projections for the Fourth Plan [2;iv-1]. However, a viable balance of payments strategy requires that exports must rise significantly both in absolute as well as in relative terms, i. e., in relation to total domestic output. In spite of such strong increases in export earnings the export-GDP ratio did not change significantly. The average export-GDP ratio was 5.3% during the Second Plan period. During the Third Plan period it increased marginally to 6.3%.

Table-1: The External Economy of Bangladesh During the Third Plan Period

|                               | 1984/85 | 1985/86 | 1986/87 | 1987/88 | 1988/89 | 1989/90 |
|-------------------------------|---------|---------|---------|---------|---------|---------|
| Imports                       | 2647    | 2364    | 2620    | 2986    | 3375    | 3850    |
| Exports                       | 934     | 819     | 1074    | 1231    | 1286    | 1517    |
| Remittances                   | 476     | 586     | 731     | 788     | 836     | 887     |
| Trade Gap                     | -1713   | -1545   | -1546   | -1755   | -2089   | -2333   |
| External Debt Payments        | 170     | 184     | 233     | 289     | 293     | 327     |
| External Payments Gaps        | -1407   | -1143   | -1048   | -1256   | -1546   | -1773   |
| GDP (current market prices)   | 15164   | 14768   | 16911   | 18560   | 20013   | 21450   |
| Import GDP Ratio              | .174    | .160    | .155    | .161    | .169    | .179    |
| Export GDP Ratio              | .062    | .055    | .064    | .066    | .064    | .071    |
| Debt Service Ratio (Per cent) | .182    | .225    | .217    | .235    | .229    | .216    |

Source: [4,5].

Growth rate of imports has been 7.8% per annum in the Third Plan period. The Fourth Plan document, however, estimates the import growth rate at 5.2% per annum. The projected import growth rate in the Third Plan was 2.8% per annum. Thus, total imports exceeded the projected import target of U.S. \$ 3106 by 10% in the terminal year of the Third Plan, i.e.,

1989/90. The average import-GDP ratio was 16.5% during the Second Plan period, and remained unchanged during the Third Plan (Table 1). With import liberalization policies taking effect in the economy, imports show a rising tendency in both absolute and relative terms in the last two years of the Third Plan period. Thus, although in absolute terms the export growth has been strong, it has failed to make a significantly positive impact on the trade gap. The trade gap grew at the rate of 6.4% during the Third Plan period. The trade gap GDP ratio (11%) remained unchanged in the terminal year of the Third Plan compared to the benchmark year, i.e. 1984/85.

The strategy of heavy reliance on external assistance resulted in a significant increase in debt service payments. The debt service ratio increased from an average of 17% in the Second Plan period to 22% in the Third Plan period. The external payments gap with a growth rate of 4.7% per annum is less than the growth of the trade gap (6.4%). The slower growth of the external payments gap was due to strong growth of remittances. This also resulted in a decline of the external payments gap-GDP ratio from 93% in 1984/85 to 8.3% in 1989/90.

Since the mid-1970's Bangladesh has adopted a strategy of raising domestic output through infusion of foreign capital inflows. In the earlier period the attempt was to raise the internal savings rate through stringent import controls while sacrificing current consumption. The policy of massive reliance on foreign aid for development became more evident in the Third Plan and now in the Fourth Plan. In order to yield positive results, the strategy should lead to a marked increase in the growth of the domestic manufacturing sector, in particular.

Table 2 shows the composition of imports during the Third Plan period. The share of consumer goods imports has increased sharply particularly in 1987/88<sup>1</sup>. This is related to significant liberalization of imports beginning in 1985/86. Consumer goods plus materials for consumer goods may be viewed as "non-development" imports, whereas the other two categories related to investment goods and intermediates for the production of investment goods may be termed as "development" imports. The share of "development" imports during the Third Plan has declined from nearly 30% in 1984/85 to 24% in 1988/89. If we observe total intermediate goods imports  $\{(2)+(3)\}$ , it is clear that this category of imports

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1. Consumer goods imports alone comprised 47% of total export earnings of Bangladesh in the Third Plan period, on average, while "non-development" imports comprised 92% of total export earnings.

### *Rahman: External Sector*

also declined somewhat. A Large proportion of imports were used for direct consumption or for "non-developmental" purposes. If imports cannot support production more adequately, the burden of external payments, while already serious, would become worse. The entire strategy of heavy reliance on external assistance for development clearly did not yield desired results in the Third Plan period.

Table-2: Composition of Imports

|                                 | (% share) |         |         |         |          |
|---------------------------------|-----------|---------|---------|---------|----------|
|                                 | 1984/85   | 1985/86 | 1986/87 | 1987/88 | 1988/89* |
| 1. Consumer Goods               | 32.5      | 32.8    | 32.3    | 37.2    | 39.4     |
| 2. Materials for Consumer Goods | 38.4      | 36.1    | 32.8    | 35.0    | 36.1     |
| 3. Materials for Capital Goods  | 16.6      | 18.8    | 21.5    | 17.2    | 14.2     |
| 4. Capital Goods                | 12.5      | 12.3    | 13.4    | 10.6    | 10.3     |

Source: BBS, \* Provisional estimates based on BBS data.

Bangladesh continued to experience a transfer of resources from deteriorating terms of trade. The commodity terms of trade index was above 100 only in 1987/88. The index has deteriorated sharply since then. On average the terms of trade loss accounted for 8% of exports earnings during the Third Plan [3]. It may be recalled that the average debt service ratio was 22% in the Third Plan period. Thus about 30% total export earnings is lost due to adverse terms of trade and debt service payments.

### FOURTH PLAN TRADE TARGETS

#### *Exports*

In the terminal year i.e. 1994/95 of the Fourth Plan export earnings are projected to increase to US \$ 2560 million from a base of US \$ 1830 million in 1989/90. This implies an annual growth rate of 7.7% per annum. With a projected real GDP growth rate of 5% per annum the export response with respect to domestic output is 1.54. Thus, domestic consumers and producers would have to give up an increasing proportion of domestically produced commodities for export to markets abroad. This reflects a strategy of heavy export acceleration in order to manage external debt.

Traditional exports are projected to grow at the rate of 3.6% and non-traditional exports are projected to grow at the rate of 9.9% during the Fourth Plan period. Readymade garments (RMG), which comprises about 65% of non-traditional exports is projected to grow at the rate of 10.6%. The strong growth of readymade garments exports in the Third Plan period was made possible largely by inroads made into European market after

imposition of quotas in the US market. During the Fourth Plan period the likelihood of facing quantitative trade restrictions in Europe is high particularly in view of European integration beginning in 1992. Opening up of additional markets would be difficult, and it would take a long time before the trade could adapt to higher-valued categories. The assumption of a 10.6% growth rate per annum appears to be somewhat optimistic.

Of the other two non-traditional exports, i.e., leather and frozen foods, the former is primary commodity-intensive and the latter is virtually a primary commodity due to very little processing involved. Both are subject to excessive price fluctuations, the latter more so than the former. It appears odd that such a low value-added commodity so prone to high price fluctuation as frozen foods has been declared as the "thrust" sector in the recent Export Policy. Leather, also faces problems of raw materials scarcity from domestic sources, which implies that the import-content of the export industry may increase in the future. Indeed there is already a flourishing cross-border informal trade in livestock which comprises a major source of raw material for the leather export industry. In view of these constraints, the projected overall growth rate of 9.9% for non-traditional exports in the Fourth Plan appears to be realistic. The growth rate is less than 50% of the actually realized rate during the Third Plan. The export strategy should have emphasized the development of higher value-added manufactured exports as a basis for building the edifice of a strong and stable growth of the manufacturing sector in the later stages of the perspective plan.

An undesirable feature of non-traditional exports of Bangladesh in general, and RMG exports in particular, is their excessive import content and hence, low domestic value-added component. Imported materials comprise about 75% of export value in case of RMG exports. Backward linkage has not been significant. Excessive reliance in these categories of non-traditional exports to achieve strong export growth keeps import growth high as well. In spite of strong export growth, the desired effects on the trade deficit and the trade structure has not taken place mainly because of the import-creating effect of RMG exports, in particular. In our view, the strategy of excessive reliance on low-value added non-traditional exports to achieve a turnaround in the external payments situation is misplaced. The country's textile sector should have been targeted as the thrust sector. With some policy reform and support, this sector may be expected to play a pivotal role in the industrialization process. Use of domestically produced cloth could reduce the import-content of the RMG export sector dramatically.

The Fourth Plan projections regarding growth in traditional exports, i.e., jute goods exports at the rate of 3.8% per year and growth of tea exports from 25 million kg. in 1989/90 to 40 million kg. in 1994/95. These exports face serious difficulties that are well-known and cannot be expected to grow at such high rates even with the recent policy changes. A more realistic projection for traditional exports growth in the Fourth Plan would be 2.5% per annum.

#### *Remittances*

The assumption of a 3.5% growth per annum in remittances in the Fourth Plan is excessively conservative. It is difficult to fathom the reasons as to why growth in remittances would decline from the high rate (13% per annum) achieved during the Third Plan even with the Gulf crises. The growth in remittances was grossly under-estimated in the Third Plan projections as well.

#### *Imports*

The projected aggregate import growth rate in the Fourth Plan is 5.2 per cent per annum. This is a rather conservative estimate compared to actual growth rate of 7.8% per annum experienced during the Third Plan, which is somewhat below the historical import growth for Bangladesh. Food imports are projected to decline dramatically to 0.7% of total imports in 1994/95 from the 1989/90 share of 11.4%, the underlying assumption being the attainment of food self-sufficiency. The optimistic forecasts about food self-sufficiency are based on production increases under good weather conditions, particularly in the last year. However, there has been no significant upward deviation from trend foodgrain production to warrant such optimistic forecasts. Food self-sufficiency has been a long-cherished objective of state policy, but it has turned out to be a "red-herring", and it is important to see it as such. Bangladesh, being a country with serious food security resources would have to import substantial quantities of foodgrains for stockpiling and market stabilization. Even with food self-sufficiency the "distribution" problem will remain unresolved and Bangladesh would have to respond to this concern through food imports. Domestic procurement would become extremely difficult in view of severe domestic currency constraints and donor conditionalities regarding domestic public expenditures. In view of these realities the decline in the share of food imports from 11.4% in 1989/90 to 0.7% in the terminal year of the plan seems "heroic".

The implied aggregate import elasticity with respect to GDP in the Fourth

Plan projections is 1.04 which is very low compared to available estimates<sup>2</sup>. We estimate the realized import elasticity during the Third Plan to be 2.05. Assuming an income elasticity of 1.5 the growth rate of imports would be 7.5% per annum. Even with an elasticity estimate of 1.20 the projected import growth rate would be 6% per annum. Especially in the context of increasing import liberalization in the Bangladesh economy the growth rate in imports is unlikely to be less than 7% in the Fourth Plan period. Assuming a growth rate of 5.2% for imports has resulted in lower than plausible trade gap projections.

Intermediate goods imports is projected to grow at the rate of 9.4% per annum and capital goods imports at the rate of 6.4% per annum. These may be compared to realized rates of 9% and 6%, respectively in the Third Plan period. The Fourth Plan's projected growth for the industrial sector is 9.1% per annum. Whether such an industrial growth rate is consistent with the projected growth of intermediate imports depends on the production technologies in this sector. The plan does not discuss the methodology of obtaining the projected import growth rate. Thus, it is extremely difficult to assess their merits in terms of consistency, adjustments for import substitution, assumed values of imported and domestic capital coefficients, etc. However, it is apparent from the projected growth rates of imported intermediates and capital goods that they would not alter the existing composition of imports in any significant way.

#### *Trade Gap*

The plan states: "The major balance of payments objective of the plan will be to restrain the export-import gap [2;iv-6]. In the preceding discussion in this paper we have shown that import growth in particular, may have been significantly underestimated in the plan projections. Table 4.9 of the plan document implies that the trade gap would grow at the rate of 4.5% per year, while the balance of payment gap will grow ever more rapidly, i.e., 5.5% per year due to enhanced external debt repayments [2;iv-13]. The Fourth Plan document's estimate of the rate of growth of the trade gap is 3.4% per year during the Third Plan [2;iv-1]. It also estimates negligible growth in the current account balance. Our own estimate is, however, 4.3%. It is thus, difficult to understand how the BOP strategy in the Plan would 'restrain' the trade gap.

#### *Commercial Policy*

Beginning in 1985/86, i.e., the year of initiation of the Third Plan major

2. Jahan obtained an income elasticity of imports estimate of 2.9 using data for the period 1972/73-1986/87 [1].

changes in import policies took place. Imports were shown in 2 lists, viz., 'negative' and 'restrictive' in 1985/86. Items not mentioned in either list become freely importable. Since 1987/88 the items in the 2 lists were reduced each year reflecting the government's acceptance of the donor-sponsored policy of rapid import liberalization. Since the last fiscal year, 2-year import and Export policies have been announced in a bid to rationalize trade and industrial policies and provide stable environment for investment planning. The Import policy now includes only one "Control" list. All items not on the list may be freely imported. Other liberalization policies include great simplification in trade procedures, reduction of tariffs, abolition of quantitative restrictions, expansion of imports through the SEM, depreciation of the exchange rate, etc. The plan states the measures for trade liberalization adopted by the government and expresses strong support for them. The plan, however, forgets to mention that the adoption of these policies were a pre-condition for continued concessional external assistance to Bangladesh under the World Bank and IMF structural adjustment loans and facilities. The Plan states the policies as if these were the avowed objectives of the government itself. Successful implementation of these policies of course, requires that the government "own" these policies.

Liberalization of imports is aimed at achieving high growth in the economy, through utilization of existing capacity, encouraging additional investment and improve allocative efficiency. The liberalization of imports is supported through increased foreign aid. It is extremely important, therefore, that the liberalization strategy should, yield desired results. Very little if anything has happened by way of rapid growth of the manufacturing sector during the Third Plan period. The composition of imports changed the Third Plan. The projected rates of growth in the Fourth Plan, it was pointed out would do little to change the existing composition. The private savings rate also appears to have remained unchanged at its excessively low levels. The plan chooses not to discuss the experience with liberalization since 1985/86, perhaps somewhat self-consciously.

### *Conclusions*

The Fourth Plan's projected aggregate import growth of 5.2% per year is underestimated. Aggregate import elasticity estimates suggest that overall import growth would be much higher. A 7% per annum aggregate growth rate would still be on the conservative side. Projecting the share of foodgrain imports to decline to 0.7% in 1994/95 is 'heroic' in view of the fact that Bangladesh would continue to have serious food security and market

stabilization concerns. Moreover, foodgrain production has not shown any significant upward deviation from trend. Projected growth rates for intermediate imports and capital goods are unlikely to alter the existing import structure which is biased towards direct and indirect consumption and hence, would not contribute significantly towards utilization of capacity in the investment good sector or expansion of this sector.

While the export growth rate projection for traditional exports appears to be somewhat overestimated, the projected growth of non-traditional exports is realistic. The export target of the Fourth Plan is likely to be realized. However, the projected growth of remittances from Bangladeshis working abroad seems to be unduly underestimated. On the whole, the trade gap is underestimated due to underestimation of imports. Thus, the implied growth of 4.5% per year in the trade gap is very likely to be exceeded in the Fourth Plan. The plan's strategy of restraining the trade gap would be difficult to achieve, instead dependence on external assistance would be expected to increase during the Fourth Plan.

Reliance on exports with a low domestic value-added content e.g., RMG exports has not improved the balance of payments difficulties of Bangladesh. There are serious difficulties in achieving backward linkage, and the process is likely to be very slow unless heavy public policy support to the textile sector is forthcoming soon. Major trade and industrial policy changes since the early 1980's and specially during the Third Plan period to support export lead growth have not produced desired results. The balance of payments position continues to worsen. Bangladesh must seriously consider placing adequate emphasis on efficient import substitution (and not neglect this strategy all together) which would then create the economic structure necessary for higher value-added exports at a later stage. Sequencing the strategy of trade and industrialization and the policy reforms required to bring about the desired structural transformation is of central importance to the success of development planning. The plan opts not to discuss this important question at any depth.

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## MACRO-ECONOMIC FRAMEWORK OF THE DRAFT FOURTH FIVE YEAR PLAN—SOME COMMENTS

WAHIDUDDIN MAHMUD\*

In the case of all the previous Five Year Plans, the results of the background macromodelling exercises were made available in the form of supporting document of the Planning Commission. No such paper on the technical frame of the FFYP and its numerical calculations is yet available. For the sake of meaningful discussion on the macroeconomic projections made in the Draft FFYP, the estimates of the various parameters of the macro-model need to be critically looked at. It is, however, understood that the macro-model used for the present Plan is the same in its formal structure as the one used in the Third Plan; it is a dynamic model of the general equilibrium type based on an input-output system and a social accounting matrix. The suitability of such a model was widely discussed at the time of launching of the Third Plan and the arguments need not be repeated here. (See some of the papers in *The Bangladesh Journal of Political Economy*, Vol. 7, No.1A, 1986).

Chapter 1 of the Draft FFYP starts by saying that the Fourth Plan has been formulated as a part of a 20 year Perspective Plan (1990-2010) which presumably supersedes the Perspective Plan (1980-2000) launched simultaneously with the Second Plan. The reason given for making a fresh start at longterm planning is that, unlike in the past, it would be now possible to formulate realistic longterm growth strategies based on "an indepth search for the inherent dynamism of the Bangladesh economy". To carry conviction, the Plan document must contain a more rigorous analysis of this inherent dynamism of the Bangladesh economy. Besides outlining the longterm general direction of the economy, a perspective plan is needed in the case of projects (or strategies) which have long gestation lags and therefore can be justified only in terms of the longterm needs of the economy. What exercises have been done in this regard to justify launching a new perspective plan?

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\* Professor, Department of Economics, University of Dhaka.

It is mentioned in the Draft Plan that the input-output table of the macro-model has been reestimated or updated. It is however more urgent to update the estimates the capital input coefficients, since these are the crucial parameters which determine the fixed capital requirements for increasing production in various sectors. The estimates of capital input coefficients in some sectors are long outdated and many of these estimates are highly suspect since these were derived from project's blue-prints rather than from the evaluation of completed projects. The unreliability of the capital coefficient estimates generally reflect the weakness in project monitoring and evaluation. The last chapter of the Draft Plan does mention the need for strengthening the activities of the IMED, but the emphasis seems to be on ensuring the administrative and financial discipline in project implementation rather than on economic evaluation of projects.

The Draft Plan emphasises the need for tracing the links between sectoral income and household income in order to determine to the effect of investment activities on poverty. The SAM framework adopted in the macromodel is a useful device to establish these links. Much of the usefulness of this approach would however depend on the reliability of the income distributional coefficients (derived from the estimated SAM) and the ability on the part of the model-builders to predict how these coefficients would change over time. The presently available SAM was estimated for 1976-77, and therefore needs to be reestimated for a more recent year in order to yield any reliable estimates of income distributional coefficients (ie. shares of sectoral income accruing to different household groups). This is all the more important since the structure of the present SAM is such that it cannot accommodate the income distributional effects of changes in real wages and asset redistribution.

The concern for improving the links between the Plan and projects (macro and micro-planning) is not adequately reflected in the Draft Plan. Ideally, there should be two-way links: assessment of individual projects should lead to better estimates of parameters for the macro-model while the results of the macromodelling exercise should provide guidelines for appropriate selection of projects. The preparation of a Blue Book of project for the Third Plan was a step in the right direction. This should have been followed up by an exercise to estimate pipeline investments (i.e. work in progress), and assess the starting and completion dates of major projects. Information of this kind is essential for the phasing of Plan investments and for linking the plan with the allocations under ADP.

The Draft Plan puts much emphasis on bottom-up or local-level planning. This is undoubtedly an approach in the right direction. The discussion in the plan is mostly on institutional and organisational matters. But there are also difficult and unresolved problems of how to integrate local-level planning with macro-level planning. The issues relate to (a) what kind of local-level production specialisation (or self-sufficiency) needs to be promoted, (b) what would be the rules for regional allocation of central funds, (c) and how to determine externalities and interrelationships between local, regional and national projects and programmes.

In view of the declared policy of privatisation, decontrol and increasing reliance on market forces, a major planning concern must be about how to incorporate the role of macroeconomic policies (i.e. fiscal, monetary and trade policies) in the macro-planning framework. The Draft Plan admits that the investment allocations in the private sector are only indicative and would depend on future response to policies; yet there are no substantial discussions on the likely effects of macroeconomic policies on the structure of incentives. A rigorous analysis of the likely impact of macroeconomic policies, such as those pursued under structural adjustment measures, would not only enrich the macro framework of the plan, but could also provide a basis for meaningful negotiations with the donor agencies. The economy wide repercussions and the macroeconomic trade-offs involved in pursuing the structural adjustment measures can be fully captured only when these are considered within the framework of an well-articulated macroeconomic model. The technical framework for the five-year plan is the right place to do so.

The discussion on the macroeconomic framework of the Draft FFYP puts great emphasis on what it calls the innovative approach of group-based planning designed to achieve simultaneously the objectives of poverty alleviation and self-reliance through domestic resource mobilisation. The activities of Grameen Bank and some other anti-poverty programmes are cited as examples of such group-based planning. The innovation of the Draft FFYP is not therefore in the design of such activities (which admittedly have been in operation for quite some time) but in conceiving a macro-planning strategy in which such 'isolated' poverty-alleviating activities would be brought into mainstream development planning. Little is said about the proposed mechanism for doing this. Whether these group-based programmes can be expanded sufficiently to have a nation-wide impact has to be examined from the point of view of both organisational capability as

well as the potential scope for the expansion of the economic activities that are promoted under these programmes. A convincing case in this regard can only be made by demonstrating, within the framework of a macroeconomic exercise, as to how these group-based activities would be accommodated within the overall pattern of growth that is envisaged. The GED of the Planning commission is ideally suited to initiate such an exercise.

## চতুর্থ পঞ্চবার্ষিক পরিকল্পনা—একটি প্রযুক্তি প্রেক্ষিত

ইকবাল মাহমুদ\*

উন্নয়নের গতিধারা ও জি,ডি,পি তে গুণগত পরিবর্তন

অর্থনৈতিক প্রগতির বিভিন্ন মাপকাঠি বর্তমানকালে ব্যবহৃত হয়ে থাকে। তবে সাধারণতঃ মাথাপিছু জি,ডি,পি বা জাতীয় আয়ের উন্নতির ধারা বজায় থাকলে ধরে নেয়া হয় যে দেশ অর্থনৈতিক উন্নয়নের পথে এগোচ্ছে। মাথাপিছু জি,ডি,পি, এর উন্নতির সাথে আর একটি মাপকাঠি হল জি,ডি,পি'র কাঠামোগত ও গুণগত পরিবর্তন। উন্নয়নের প্রথম ধাপ হিসাবে ধরে নেয়া হয় যে শিল্পের অবদান ক্রামগত বৃদ্ধি পাবে এবং পরবর্ত্তি ধাপে সেবামূলক খাতের অবদান বৃদ্ধি পাবে। নীচের সারণী থেকে দেখা যাবে যে বাংলাদেশে গত কুড়ি বছরে জি,ডি,পি তে শিল্পের অবদান মোটামুটি ৯% এর মধ্যেই সীমাবদ্ধ থেকে গেছে। এই স্থবিরতা এবং একই সাথে বিজ্ঞানী, প্রকৌশলী ও প্রযুক্তিবিদদের বিরাজমান বেকারত্ব এক অনিশ্চিত ভবিষ্যতের আশঙ্কা এনে দিয়েছে জনমনে।

সারণী-১ : বাংলাদেশের জি,ডি,পি-তে কাঠামোগত পরিবর্তন (১৯৭২/৭৩ ফ্যাক্টর হিসাবে)

| খাত                                  | ১৯৪৯/৫০ | ১৯৬৯/৭০ | ১৯৮৯/৯০ |
|--------------------------------------|---------|---------|---------|
| কৃষি                                 | ৭০.৫২   | ৬১.৪৯   | ৩৯.১৫   |
| শিল্প                                | ৪.২০    | ৮.২৬    | ৯.১৭    |
| নির্মাণ                              | ০.৮৩    | ৪.৬০    | ৫.৫২    |
| বাণিজ্য ও যাতায়াত                   | ১১.৬০   | ১২.০৮   | ১৮.৪৫   |
| বিদ্যুৎ, পানি, সেবা, প্রশাসন ইত্যাদি | ১২.৮৫   | ১৩.৬৫   | ২৭.৭১   |

সূত্রঃ পরিকল্পনা কমিশন, বিশ্বব্যাংক এবং এইচ, আই, আই, ডি, ওয়ার্কিং পেপার নং ১০।

পক্ষান্তরে আমরা দেখেছি এশিয়া মহাদেশের কতগুলি দেশ সুনির্দিষ্ট বিজ্ঞান ও প্রযুক্তি প্রয়োগ ও আধুনিক শিল্পায়নের নীতিমালার মাধ্যমে পাশ্চাত্য দেশগুলির শিল্প বিপ্লবের সুফলের ভাগীদার হবার প্রয়াস পেয়েছে। আমাদের আশে পাশের এই দেশগুলিতে বিজ্ঞান ও প্রযুক্তি প্রয়োগের প্রেক্ষাপটে বাংলাদেশের স্থান কোথায়? সেটাই আজকের জিজ্ঞাসা।

পূর্ববর্তী মধ্যম মেয়াদী পরিকল্পনা সমূহের লক্ষ্য ও উদ্দেশ্য

স্বাভাবিক কারণেই প্রায় সব কটি মধ্যম মেয়াদী পরিকল্পনার দলিলসমূহে "বিদ্যমান

\* প্রকৌশলবিদ্যাবিদ্যালয়।

দারিদ্র কমিয়ে আনা” পরিকল্পনা প্রধান লক্ষ্য হিসাবে চিহ্নিত হয়ে এসেছে। জাতীয় আয় বৃদ্ধি ও একই সাথে সুখম বন্টনের কথাও আছে। এবং বিভিন্ন ক্ষেত্রে উন্নয়নের ধারার আলোচনায় স্বাভাবতঃই কৃষি উন্নয়ন ও খাদ্য উৎপাদন বৃদ্ধির কথা সর্বাত্মে স্থান পেয়েছে।

প্রথম পাঁচশালা পরিকল্পনায় যুদ্ধবিরুদ্ধ অর্থনীতি পুনর্গঠনের উপর জোর দেয়া হয় এবং অর্থনৈতিক যোগাযোগ ও ভৌত অবকাঠামো পূর্ণ নির্মাণের জন্য অর্থ বিনিয়োগ করা অবশ্যই হয়ে পড়ে। কৃষি উন্নয়নের সাথে সাথে আমদানী ও বৈদেশিক সাহায্যের উপর নির্ভর কমানোর লক্ষ্যে দেশে প্রযুক্তি ও প্রকৌশলগত দক্ষতা বৃদ্ধির ভিত্তি স্থাপনের জন্য কতকগুলি প্রাতিষ্ঠানিক ব্যবস্থার প্রস্তাব করা হয়—যথা, জাতীয় উপদেষ্টা প্রতিষ্ঠান, জাতীয় উৎপাদন কাউন্সিল, শিল্প প্রযুক্তি প্রতিষ্ঠান, জাতীয় কেমিক প্রযুক্তি প্রতিষ্ঠান, জাতীয় চামড়া প্রযুক্তি উন্নয়ন প্রতিষ্ঠান, পাট প্রযুক্তি উন্নয়ন প্রতিষ্ঠান ইত্যাদি। পরিকল্পনাবিদরা আশা করেছিলেন যে এই সমস্ত প্রাতিষ্ঠানিক ব্যবস্থার ফলশ্রুতি হিসাবে দেশে প্রযুক্তি ও প্রকৌশল দক্ষতা বৃদ্ধি পাবে এবং শিল্প ও আনুষাংগিক ক্ষেত্রে অর্থনৈতিক কর্মকাণ্ড জোরদার হবে কেবল কৃষির এবং বৈদেশিক সাহায্যের উপর নির্ভরশীলতা হ্রাস পাবে।

বাস্তবে উল্লেখিত প্রাতিষ্ঠানিক ব্যবস্থাগুলি এখনও বাস্তবায়িত হয়নি এবং পরবর্তী মধ্যম মেয়াদী পরিকল্পনাসমূহে এর ওপর খুব গুরুত্ব দেয়া হয়েছে বলে মনে হয় না।

দ্বিতীয় পাঁচশালা পরিকল্পনা দলিলে উল্লেখ ছিল যে দক্ষ মানব সম্পদ গঠনে এবং বিদেশী প্রযুক্তি আহরণ, আত্মীয়করণ এবং দেশের জন্য যথোপযুক্ত প্রযুক্তি উদ্ভাবনের মাধ্যমে উন্নয়নের গতিধারা পরিবর্তনের সার্বিক প্রচেষ্টা চালান হবে।

অন্যান্য পরিকল্পনার ন্যায় তৃতীয় পরিকল্পনা গ্রহণে দারিদ্র কমিয়ে আনা এবং গ্রামীণ অর্থনীতি উন্নয়নের ওপর যোর দেয়া হয়। গ্রামাঞ্চলে সম্পদ ও কর্মসংস্থানের ব্যবস্থার সাথে সাথে প্রয়োজনীয় প্রশাসনিক বিকেন্দ্রীকরণ, রাজনৈতিক পরিবেশ ও বন্টন ব্যবস্থা গড়ে তোলার কথা বলা হয়। আত্মনির্ভরশীলতা পূর্ববর্তী পরিকল্পনা সময়কালে খুব একটা বৃদ্ধি পায়নি। বার্ষিক উন্নয়ন কর্মসূচীতে বৈদেশিক সাহায্যের শতাংশ গত দশকে দুইবার সত্তরের ঘরে নেমেছিল। কিন্তু বেশীরভাগ সময় আশির ঘরেই থেকেছে। তৃতীয় পরিকল্পনাকালে আরো বৃদ্ধি পেয়েছে।

#### উন্নয়ন পরিকল্পনায় প্রযুক্তি

প্রথম পরিকল্পনার সময়কাল শেষ হবার পর শিল্পক্ষেত্রে বেসরকারী উদ্যোগের উপর বিশেষ জোর দেয়া হয়ে আসছে। এই উদ্দেশ্যে শিল্প উদ্যোক্তাদের জন্য সহজ শর্তে ঋণ, বিভিন্ন তত্ত্বিক ও অন্যান্য আনুষংগিক সুবিধা চালু করা হয়। বিশেষ করে তৃতীয় পরিকল্পনাকালে সরকারী খাতের পরিবর্তে বেসরকারী খাতকে উৎসাহ দানের প্রচেষ্টা চালান হয়। দূর্তাগ্যবশতঃ বিভিন্ন অর্থনৈতিক ও পুঁজি বিনিয়োগ এর সুবিধা থাকা সত্ত্বেও এই সময়কালে শিল্পে বিনিয়োগের ধারা ক্রমগত মন্দ্র হয়ে গেছে এবং পরিকল্পনা কমিশনের এক সমীক্ষা অনুযায়ী

### মাহমুদ : প্রযুক্তি প্রেক্ষিত

শিল্পের তুলনায় ব্যবসা ও সেবামূলক কাজে পুঁজি বিনিয়োগ বেশী হয়েছে। উল্লেখ্য যে এই সময়কালে সরকার ১৯৮৬ সালের একটি নতুন শিল্পনীতি প্রণয়ন করেন যার মাধ্যমে বেসরকারী পুঁজি বিনিয়োগের হার বৃদ্ধি পাবার আশা করা হয়েছে। আরো দূর্তাগ্যজনক ঘটনা হল এই যে, তৃতীয় পরিকল্পনা সময়কালে শিল্পে উৎপাদনশীলতাও বহুলাংশে হ্রাস পেয়েছে। এই সমীক্ষা অনুযায়ী প্রায় দুই তৃতীয়াংশ শিল্প ইউনিটগুলিতে সার্বিক উৎপাদনশীলতা সূচক উল্লেখযোগ্য হারে হ্রাস পেয়েছে।

এই প্রবন্ধের পরিশিষ্টে দুটি সারণীতে পার্শ্ববর্তী দেশগুলির সার্বিক উন্নতি-তথা শিল্পক্ষেত্রে প্রবৃদ্ধির ধারার সাথে বাংলাদেশের বর্তমান ব্যবস্থার তুলনা করা হয়েছে। একটি সারণী থেকে দেখা যায় যে পঞ্চাশের দশকে মাথাপিছু গড় আয়ের দিক থেকে ভারত, পাকিস্তান, থাইল্যান্ড, মালয়েশিয়া, কোরিয়া ও তাইওয়ানের তুলনায় বাংলাদেশ খুব একটা পিছিয়ে ছিল না। কিন্তু ১৯৯০ সালের চিত্র সম্পূর্ণ ভিন্ন। আমাদের উন্নতি হয়েছে ২২% আর কোরিয়া ও তাইওয়ানের হয়েছে ১৮০০%। পরিশিষ্টের দ্বিতীয় সারণীতে শিল্পক্ষেত্রে উন্নতির ধারার প্রতি দৃষ্টি দিলে দেখা যাবে যে প্রবৃদ্ধির হারের ক্ষেত্রে বা উৎপাদনশীলতার দিক থেকে আমাদের অবস্থা তৈবচ।

গত দুই দশকে আমাদের উন্নতির মাত্র গতি বা স্থবিরতার কারণ অনুসন্ধান করেছেন অনেকে। রাজনৈতিক অস্থিরতা, পরিকল্পনার শৃঙ্খলার অভাব, শিল্প কারখানায় শ্রমিক অসন্তোষ, অপরিকল্পিত ব্যয় বৃদ্ধি, অনুন্নয়ন খাতে ব্যয় বৃদ্ধি, আমদানী রপ্তানী ক্ষেত্রে সুনির্দিষ্ট নীতিমালার অভাব ইত্যাদি। কিন্তু পরিশিষ্টের সারণী দুটিতে যে দেশগুলি অর্থনৈতিক উন্নয়নের ক্ষেত্রে সাফল্য অর্জন করেছে বলে দেখা যাচ্ছে সেগুলির উন্নয়নে প্রক্রিয়া অনুধাবন করলে দেখা যাবে যে দ্রুত উন্নতি সাধনের মূলে রয়েছে তাদের অর্থনীতিতে প্রযুক্তির সুষ্ঠু প্রয়োগ। উন্নত বিশ্বের অভিজ্ঞতা কাজে লাগিয়ে এই দেশগুলি প্রযুক্তির যথাযথ প্রয়োগের মাধ্যমে উন্নয়ন কর্মকাণ্ডে গত তিন দশকে যথেষ্ট গতি সঞ্চার করতে সক্ষম হয়েছে। এটা এখন সর্বজন স্বীকৃত যে প্রযুক্তির সুষ্ঠু প্রয়োগের মাধ্যমে শিল্প ও অন্যান্য ক্ষেত্রে উন্নয়নের একমাত্র পথ। উৎপাদনশীলতা বৃদ্ধির চাবিকাঠি হচ্ছে প্রযুক্তির সফল প্রয়োগ।

নোবেল পুরস্কার বিজয়ী অর্থনীতিবিদ অধ্যাপক রবার্ট সোল তাঁর প্রবর্তিত অর্থনৈতিক বিশ্লেষণ প্রক্রিয়ার মাধ্যমে প্রমাণ করেছেন যে দেশের অর্থনৈতিক উন্নতিতে পুঁজি ও শ্রমের অবদানের তুলনায় প্রযুক্তির উন্নয়ন ও যথোপযুক্ত ব্যবহারের অবদান অনেক বেশী। পুঁজি ও শ্রমের বর্ধিত দক্ষতার সাথে প্রযুক্তির সার্বিক প্রয়োগ না থাকলে উন্নয়নের গতি মাত্র হতে বাধ্য। প্রযুক্তিকে অবশ্য কেবল যন্ত্রপাতির সাথে সম্পৃক্ত করা হয় না। এর সাথে যন্ত্র উদ্ভাবনে সক্ষম দক্ষ জনশক্তি সংশ্লিষ্ট তথ্য ও নথির ব্যবহারে দক্ষতা ও লাগসই প্রাতিষ্ঠানিক ব্যবস্থাকে একই সাথে সম্পৃক্ত করা প্রয়োজন। এই চারটি উপাদান নিয়েই প্রযুক্তি। এর একটি বাদ দিলেই প্রযুক্তির সফল প্রয়োগ সম্ভাবনা বহুলাংশে হ্রাস পেতে বাধ্য। গত দুই দশকের উন্নয়ন পরিকল্পনায় প্রযুক্তির স্থান সঠিকভাবে নির্ধারণের চেষ্টা চালান হয় নাই।

চতুর্থ পঞ্চবার্ষিক পরিকল্পনা (১৯৯০-৯৫)

চতুর্থ পঞ্চবার্ষিক পরিকল্পনার খসড়া দলিল সম্প্রতি জনমত যাচাই এর জন্য প্রকাশ করা হয়েছে। এবং এর পর্যালোচনা বিভিন্ন ফোরামে প্রায়ই অনুষ্ঠিত হচ্ছে। অন্যান্য পরিকল্পনার দলিলের মতই এবারও জাতীয় আয় বৃদ্ধি, দারিদ্র মোচন, অর্থনীতিতে স্বনির্ভরতা অর্জন প্রভৃতি উন্নয়ন প্রক্রিয়ার মূল উদ্দেশ্যাবলী হিসাবে চিহ্নিত হয়েছে। তবে উন্নয়ন প্রক্রিয়ার প্রচলিত খাতভিত্তিক পরিকল্পনার সাথে সামাজিক গোষ্ঠীভিত্তিক পরিকল্পনার সম্পৃক্তকরণের চেষ্টা করা হয়েছে। বলা হয়েছে যে প্রচলিত খাতভিত্তিক পরিকল্পনায় দেশের জনগণ বিভিন্ন খাতে বিচ্ছিন্নভাবে ছড়িয়ে থাকে। গোষ্ঠীগতভাবে সেখানে তাদেরকে সাধারণতঃ চিহ্নিত করা যায় না। গোষ্ঠীভিত্তিক পরিকল্পনায় সমগ্র দেশের জনগণকে দশটি আর্থ সামাজিক গোষ্ঠীতে ভাগ করা হয়েছে। পরিকল্পনা দলিলের ম্যাক্রো অধ্যায়গুলিতে বলা হয়েছে যে পরিকল্পনা কমিশনের সমীক্ষা অনুযায়ী এই দশটি গোষ্ঠীর মধ্যে দরিদ্র গোষ্ঠীগুলি দেশজ সম্পদের ব্যবহারের সর্বাপেক্ষা দক্ষ। সুতরাং চতুর্থ পরিকল্পনায় এই গোষ্ঠীগুলিকে পরিকল্পনার কেন্দ্রবিন্দুতে আনতে হবে এবং বিকেন্দ্রীভূত পরিকল্পনার মাধ্যমে এই গোষ্ঠীগুলিকে বিনিয়োগের সিংহভাগ ব্যবহারের সুযোগ করে দেয়া হবে। এইভাবে খাতওয়ারী পরিকল্পনা ও গোষ্ঠীভিত্তিক বিনিয়োগের সম্পৃক্তকরণের মাধ্যমে সম্পদের সর্বদিক ভিত্তিক সঠিক ব্যবহার নিশ্চিত করার প্রচেষ্টা চালান হবে বলে পরিকল্পনা দলিলের ম্যাক্রো অধ্যায়গুলিতে দাবি করা হয়েছে।

কিন্তু বাস্তবক্ষেত্রে ঐ একই দলিলের মাইক্রো অধ্যায়গুলিতে; যেখানে বিভিন্ন খাতসমূহের উন্নয়ন প্রকল্পের বিবরণ ও বিনিয়োগের মাত্রা উল্লেখ করা হয়েছে; প্রস্তাবিত গোষ্ঠীভিত্তিক বিনিয়োগের কোনও দিক নির্দেশনা খুঁজে পাওয়া যায় না বলেই চলে। ম্যাক্রো অধ্যায়গুলিতে উন্নয়ন প্রক্রিয়ায় প্রযুক্তির অবদানের কথা স্পষ্টভাবে উল্লেখ করা হয় নাই। বলা হয়েছে উৎপাদন বৃদ্ধির ক্ষেত্রে পুঁজি ও শ্রমের দক্ষতা বৃদ্ধির সাথে সাথে “অবশিষ্ট” উপাদানের অবদান অত্যন্ত গুরুত্বপূর্ণ ভূমিকা পালন করবে। এর জন্য দেশব্যাপি “দক্ষতা কালচার” এর উপর জোর দেয়া হয়েছে। এ ক্ষেত্রেও দেখা যায় যে “অবশিষ্ট” উপাদানের মধ্যে প্রযুক্তির প্রয়োগ যে সর্বাপেক্ষা গুরুত্বপূর্ণ সেটা স্পষ্ট করে উল্লেখ করা হয় নাই এবং খাতওয়ারী অধ্যায় (মাইক্রো অধ্যায়) গুলিতেও ম্যাক্রো অধ্যায় বর্ণিত উদ্দেশ্যের সাথে সংগতিপূর্ণ প্রকল্পের কথা বলা হয় নাই।

অবশ্য এখানে উল্লেখ করা উচিত যে তৃতীয় পরিকল্পনায় অসামগ্রিক প্রকল্পসমূহের সংখ্যা ৫০০ এর অধিক। এ ছাড়া আমাদের অধিকাংশ প্রকল্পই বৈদেশিক সাহায্য নির্ভর। সতরাং আমাদের ৪র্থ পরিকল্পনার উদ্দেশ্য ও বাস্তবায়ন প্রক্রিয়ায় নতুনত্ব আনবার প্রচেষ্টা চালনা হলেও বাস্তবক্ষেত্রে সেটা কতটা সম্ভব সেটা নিরূপণ করা কষ্টসাধ্য। এই পরিকল্পনায় প্রত্যেক খাতে প্রযুক্তির ব্যবহার এবং তার জন্য যথোপযুক্ত প্রাতিষ্ঠানিক ব্যবস্থা ও মানব শক্তির ব্যবহারের রূপরেখা স্পষ্ট নয়। সাধারণতঃ আমাদের উন্নয়ন কর্মকাণ্ডের কয়েকটি ক্ষেত্রে বিজ্ঞান ও প্রযুক্তি ব্যবহারের গুরুত্বপূর্ণ ভূমিকা সুপরিচিতঃ

### মাহমুদ : প্রযুক্তি প্রেক্ষিত

- (ক) কৃষি উৎপাদনে সেচ ব্যবস্থা জোরদার করার লক্ষ্যে দেশের পানি সম্পদের উন্নয়ন ও যথোপযুক্ত ব্যবহার। একই সাথে বন্যা নিয়ন্ত্রণ ও পানি নিক্ষেপনের ব্যবস্থা করা।
- (খ) বিভিন্ন জ্বালানীর ও শক্তির উৎস খুঁজে বের করা, দেশের বিদ্যুতের উৎপাদন ও বিতরণ ব্যবস্থার উন্নতি, জ্বালানী ও বিদ্যুৎ শক্তির সঠিক ব্যবহার, বিকল্প শক্তির ব্যবহার সম্পর্কে পরীক্ষা নিরীক্ষা, ইত্যাদি কর্মকাণ্ড জোরদার করা।
- (গ) যাতায়াত পরিবহন ও যোগাযোগ ব্যবস্থার উন্নতির সাথে সাথে বর্তমান ব্যবস্থার সার্বিক রক্ষণাবেক্ষণের ওপর পরিকল্পনা দলিলে জোর দেয়া হয়েছে। এই ক্ষেত্রগুলিতে বিভিন্ন বিকল্প ব্যবস্থার গুণাগুণ বিচার করে দেশের জন্য অতিরিক্ত নীতিমালা গ্রহণ করা।
- (ঘ) ভৌত অবকাঠামো নির্মাণের ক্ষেত্রে ও প্রযুক্তি আমদানীর জন্য ষ্ট্যান্ডার্ডাইজেশন বা অতিরিক্ত মানদণ্ড প্রবর্তনের প্রয়োজন। বলাবাহুল্য জাতীয় ভিত্তিতে কোডস এবং ষ্ট্যান্ডার্ডস এর অভাবে প্রযুক্তি আমদানীর ক্ষেত্রে বিভিন্ন অসুবিধার সৃষ্টি হচ্ছে। এই সমস্যা ভৌত অবকাঠামো ছাড়া অন্যান্য ক্ষেত্রের জন্যও সমান ভাবে প্রযোজ্য।
- (ঙ) কৃষিতে গ্রামীণ জনসাধারণের কর্মসংস্থান বৃদ্ধির সীমাবদ্ধতার কথা স্বীকার করা হয়েছে। বেকারত্ব দূর করার ষ্ট্রাটেজি হিসাবে পরিকল্পনায় ক্ষুদ্র শিল্পের ওপর জোর দেয়া হয়েছে। কুটির শিল্পে প্রযুক্তি প্রয়োগের সম্ভাব্যতা বিচার করে এর উৎপাদন ক্ষমতা বৃদ্ধি করার কথা বলা আছে। গ্রামীণ অর্থনীতিতে কুটির শিল্পের বিকাশ সাধন ব্যতীত হচ্ছে যথোপযুক্ত প্রযুক্তি প্রয়োগের অভাবে। বড় বড় শিল্প স্থাপনের মাধ্যমে কর্মসংস্থান বৃদ্ধির সম্ভাবনা সীমিত। পরিকল্পনা দলিলে গ্রামীণ অর্থনীতি ও শহরের ছোট খাট আনুষ্ঠানিক প্রতিষ্ঠানগুলি সার্বিক উন্নয়নের প্রয়োজনীয়তার ওপর গুরুত্ব আরোপ করা হয়েছে।
- ক্ষুদ্র শিল্প কুটির শিল্প থেকে ভিন্ন ধর্মী, কারণ, এতে আধুনিক প্রযুক্তির সহজ সুন্দর প্রয়োগ সম্ভব। অপেক্ষাকৃত কম পুঁজির সাথে তুলনামূলকভাবে অধিক পরিমাণ শ্রমের ব্যবহার এই ধরনের শিল্পের বৈশিষ্ট্য। ক্ষুদ্র শিল্পে বিজ্ঞান ও প্রযুক্তির প্রয়োগ সম্ভাবনার কথা চিন্তা করে এই ক্ষেত্রের উন্নতির কৌশলগত দিকগুলি কুটির শিল্প থেকে ভিন্নভাবে বিবেচনা করা প্রয়োজন হবে।
- (চ) কৃষি উন্নয়নে বিজ্ঞান ও প্রযুক্তির ব্যবহার এবং যথোপযুক্ত গবেষণা অবকাঠামো গঠনের চেষ্টা গত দুই দশকে বেশ কিছুটা এগিয়েছে এবং এর সুফল পাওয়া যাচ্ছে। কৃষি গবেষণার জন্য এবং গবেষণা লব্ধ জ্ঞানের সম্প্রসারণের জন্য প্রতিষ্ঠানিক ব্যবস্থা সুপ্রতিষ্ঠিত আছে বলে মনে করা হয়। এর ফলে এই ক্ষেত্রে বিনিয়োগ কিছুটা সহজ সুন্দর ভাবে সম্ভব। চতুর্থ পরিকল্পনা দলিলে এর জন্য যথোপযুক্ত ষ্ট্রাটেজির কথা বলা হয়েছে।

### বিজ্ঞান ও প্রযুক্তি গবেষণায় বিনিয়োগ

প্রযুক্তি ভিত্তিক উন্নয়ন পরিকল্পনার অন্যতম শর্ত হলো সুপরিকল্পিত গবেষণা কার্যক্রমের জন্য প্রয়োজনীয় প্রাতিষ্ঠানিক ব্যবস্থা ও যথোপযুক্ত বিনিয়োগ। পূর্বেই উল্লেখ করা হয়েছে যে দেশে কৃষি ক্ষেত্রে প্রযুক্তি উন্নয়নের জন্য গবেষণা প্রতিষ্ঠান গড়ে তোলা হয়েছে এবং এর সুফল পাওয়া যাচ্ছে। দেশে কৃষি উপাদান বৃদ্ধির প্রায় দুই-তৃতীয়াংশ হচ্ছে গবেষণা লব্ধ প্রযুক্তির সফল প্রয়োগের ফলশ্রুতি। অন্যান্য ক্ষেত্রে কিন্তু বিনিয়োগের মাত্রা ও প্রাতিষ্ঠানিক উদ্যোগ অত্যন্ত সীমিত পর্যায় অবস্থান করছে।

পরিশিষ্টে দেয়া সারণী A.3 থেকে দেখা যাবে যে পার্শ্ববর্তী দেশগুলির তুলনায় গবেষণায় আমাদের বিনিয়োগের মাত্রা কত কম। আমাদের দেশে মধ্যম মেয়াদী পরিকল্পনা প্রণয়নের সময় বিজ্ঞান ও প্রযুক্তি বিভাগের অধীনে প্রতিষ্ঠানসমূহের অর্থ বিনিয়োগকে কৃষি ও স্বাস্থ্য ক্ষেত্রে গবেষণা বিনিয়োগ থেকে পৃথক করে দেখান হয়ে থাকে। সারণী A.4 এবং A.5 থেকে দেখা যাবে যে বার্ষিক উন্নয়ন পরিকল্পনায় দ্বিতীয় পরিকল্পনাকালে কৃষি ছাড়া অন্যান্য ক্ষেত্রে বিনিয়োগের মাত্রা ছিল খুবই নিম্ন পর্যায়ে। সারণী A.4 এ সত্যিকার গবেষণার সাথে প্রযুক্তি সম্প্রসারণ, সংশ্লিষ্ট মাববসম্পদ উন্নয়ন তথা প্রশিক্ষণ কর্মসূচীতে বিনিয়োগের অর্থ সংযোজন করে দেখান হয়েছে। অর্থাৎ প্রযুক্তি হস্তান্তরের সাথে যে সকল উপাদান সম্পৃক্ত সেগুলিতে সার্বিক বিনিয়োগের মাত্রা দেখান হয়েছে। সারণী A.4 এ কেবল গবেষণা কার্যক্রমে প্রকৃত বিনিয়োগের মাত্রা দেখান হয়েছে—যা খুবই নগণ্য। দ্বিতীয় পরিকল্পনাকালে বিজ্ঞান ও প্রযুক্তি খাতে ১২৯ কোটি টাকা বরাদ্দ করা হয়েছিল যার মধ্যে ১১০ কোটি টাকা খরচ করা হয়েছিল। তৃতীয় পরিকল্পনাকালে বরাদ্দ করা হয় ৬০ কোটি টাকা যার মধ্যে খরচ করা হয় মাত্র ৩১ কোটি টাকা। চতুর্থ পরিকল্পনায় এই খাতে বরাদ্দ করা হয়েছে ৮০ কোটি টাকা। অবশ্য কৃষি ও স্বাস্থ্য খাতে গবেষণায় নিয়োজিত অর্থ এর অন্তর্ভুক্ত নয়। পরিকল্পনার খসড়া দলিলের ম্যাক্রো অধ্যায়গুলিতে যাই বলা হয়ে থাকুক না কেন, মাইক্রো অধ্যায়গুলিতে বিজ্ঞান ও প্রযুক্তির সফল প্রয়োগের জন্য প্রয়োজন ভিত্তিক গবেষণার প্রয়োজনীয়তা এবং এর জন্য খাতওয়ারী অর্থ বিনিয়োগের চিন্তা ভাবনা আছে বলে প্রতীয়মান হয় না। এ ছাড়া সরকার তরফ থেকে জাতীয় আয়ের ১.১% আগামী পাঁচ বৎসরে গবেষণা খাতে বিনিয়োগ করার কথা ঘোষণা করা হয়েছিল ১৯৮৯ সনের মে মাসে। এর প্রতিফলন খসড়া দলিলে নেই।

যদি আগামী মধ্যম মেয়াদী উন্নয়ন প্রকল্প বাস্তবায়নের সময় প্রতিটি খাতে উৎপাদনশীলতা বৃদ্ধির লক্ষ্যে বিজ্ঞান ও প্রযুক্তির সফল প্রয়োগ নিশ্চিত করতে হয় তবে সরকারী ঘোষণা অনুযায়ী জাতীয় আয়ের ১.১% অর্থাৎ প্রায় ৫০০ কোটি টাকা ৫ বৎসরে বিনিয়োগের সুষ্ঠু খাতওয়ারী পরিকল্পনা প্রয়োজন। পরিকল্পনা কমিশনের বিভিন্ন বিভাগ/উইং এবং সংশ্লিষ্ট মন্ত্রণালয়/বিভাগ/সংস্থা নির্দিষ্ট সেক্টরের উন্নয়ন কার্যক্রম প্রণয়ন, বাস্তবায়ন ও ব্যবস্থাপনার কাজে নিয়োজিত। তাদের পক্ষে উন্নয়ন পরিকল্পনা সহায়ক প্রয়োজন ভিত্তিক গবেষণা বিষয় সনাক্ত করা সহজ। চতুর্থ পঞ্চবার্ষিক পরিকল্পনা প্রণয়নের সময় সকল সেক্টরের জন্য এ

মাহমুদ : প্রযুক্তি প্রেক্ষিত

ধরনের গবেষণার প্রারম্ভিক তালিকা প্রণয়ন করা যায়। বিজ্ঞান ও প্রযুক্তি বিভাগ প্রারম্ভিক তালিকার ভিত্তিতে ব্যবহারকারী ও গবেষণা প্রতিষ্ঠানের সাথে আলাপ আলোচনা করে আনুমানিক ব্যয়সহ মেয়াদভিত্তিক (স্বল্প মেয়াদী, মধ্যম মেয়াদী, দীর্ঘ মেয়াদী) গবেষণা তালিকা প্রণয়ন নির্ধারণ করা যেতে পারে। জাতীয় বিজ্ঞান ও প্রযুক্তি পরিষদ এর সত্য গবেষণা কার্যক্রমে অনুদানের পদ্ধতি নির্ধারণ করা যেতে পারে। অর্থাৎ কোন ধরনের গবেষণা প্রকল্প বার্ষিক উন্নয়ন কর্মসূচীর মাধ্যমে বাস্তবায়ন করা হবে এবং কোন ধরনের গবেষণা প্রকল্প প্রচলিত চুক্তিভিত্তিক কার্যক্রমের অধীনে বাস্তবায়ন করা হবে। এন, সি, এস, টি, এর সিদ্ধান্ত অনুসারে চতুর্থ পঞ্চবার্ষিকী পরিকল্পনাকালে প্রয়োজন ভিত্তিক গবেষণা কার্যক্রম বাস্তবায়ন করা যেতে পারে। যে সকল খাতে গবেষণা কার্যক্রম বাস্তবায়নের জন্য কোন গবেষণা প্রতিষ্ঠান পাওয়া যাবে না সে সকল খাতে নতুন গবেষণা প্রতিষ্ঠান স্থাপন করা প্রয়োজন হবে।

প্রযুক্তি পরিকল্পনা—কিছু চিন্তা-ভাবনা

আজকাল অনেক অনুরূপ দেশে প্রযুক্তি পরিকল্পনার কথা চিন্তা করা হচ্ছে—জাতীয় প্রযুক্তি নীতিমালা প্রণয়ন করা হচ্ছে—বিজ্ঞান ও প্রযুক্তির প্রয়োগ সম্ভাবনাকে সামনে রেখে নতুন উন্নয়ন দর্শন রচিত হচ্ছে। এই নতুন আলোকে একজন পরিকল্পনাবিদ প্রযুক্তি বিবর্তনের কথা মনে রেখে দেশে বিজ্ঞান ও প্রযুক্তি অবকাঠামো নির্মাণে যথোপযুক্ত প্রাতিষ্ঠানিক দিকগুলির কথা চিন্তা করার সময় প্রণয়নের সময় (পি, পি, প্রস্তুত করার সময়) এর প্রযুক্তিগত দিকগুলির কথা চিন্তা করার সময় এসেছে। পরিকল্পনার প্রকল্পগুলি প্রণয়নের সময় “পি, পি”তে প্রযুক্তিগত ও প্রকৌশলধর্মী নতুন প্রশ্ন সংযোজনের কথা আমরা চিন্তা করতে পারি। নতুনভাবে মূল্যায়নের চেষ্টা করতে হবে। চিন্তা করতে হবে দেশের প্রযুক্তি ভিত্তিক সার্বিক উন্নয়নের লক্ষ্যে পরিকল্পনা করা হচ্ছে কিনা। মোট কথা, প্রযুক্তি হস্তান্তরের মাধ্যমে দেশের অর্থনীতির আধুনিকায়ন স্টাটেজি নেওয়া হচ্ছে কিনা।

উন্নয়ন কার্যক্রমে প্রযুক্তি হস্তান্তরের প্রথম ধাপ হল প্রযুক্তির মূল্যায়ন, জরীপ ও পরিমাপ। যে দেশে এই ধাপটি অতিক্রম করার সঠিক নীতিমালা ও পদ্ধতি আছে সে দেশে অনুপযুক্ত প্রযুক্তি প্রবেশের পথ পায় না। আমাদের দেশে এ ধরনের নীতিমালা নেই বা প্রচলিত পদ্ধতিতে সুনির্দিষ্ট দিক দর্শনের অভাব। দেশে প্রযুক্তি আহরণ বা সংগ্রহের এবং বিভিন্ন প্রক্রিয়ার মাধ্যমে প্রযুক্তিকে নতুন নতুন অর্থনৈতিক সম্ভাবনাময় ভবিষ্যতের দিকে এগিয়ে নিয়ে যাবার কোনও নীতিমালা নেই। ফলে, একই অর্থনৈতিক ক্ষেত্রে বিভিন্ন সময় মাপ—এর প্রযুক্তিকে “যথোপযুক্ত” বলে চালিয়ে দেওয়া হচ্ছে। বলাবাহুল্য হরেক সংস্থা ও কর্তা নিজ নিজ বিচার বুদ্ধি ও প্রবৃত্তির বশবর্তী হয়ে মূল্যায়ন ব্যাপারে ভিন্ন ভিন্ন রায় দিয়ে থাকেন।

দেশের এই অসংলগ্ন, এলোমেলো ও লক্ষ্যহীন প্রযুক্তি মূল্যায়ন বা যাচাই ব্যবস্থার কায়দা ওঠান কিছু ইনডেন্টরগণ যারা যেন তেন প্রকারে একই প্রযুক্তি কোন সংস্থার কাছে গছাতে চেষ্টা করেন। একজন প্রযুক্তি মূল্যায়ন কর্তা হিসাবে দেশের বিজ্ঞানী ও প্রযুক্তিবিদগণ এ ধরনের অপচেষ্টার মুখে কতটা যথাযথ প্রযুক্তি হস্তান্তর নীতিমালার প্রতি বিশ্বাস রেখে অটল থাকতে পারেন?

### বিদেশী প্রকল্প ও প্রযুক্তি হস্তান্তর

বিদেশী সাহায্য পুষ্ট প্রকল্প বাস্তবায়নের সময় প্রযুক্তির ধরণ ও পরিমাপ সন্মানে সিদ্ধান্ত গ্রহণ, উপদেষ্টা নিয়োগ, ঠিকাদার নিয়োগ, স্থানীয় ব্যবস্থাপনা, দল গঠন, নির্মাণ সমগ্রীও যন্ত্রপাতি আহরণ, ডিজাইনে অংশগ্রহণ, প্রশিক্ষণ কার্যক্রম প্রণয়ন, প্রভৃতিতে স্থানীয় বিশেষজ্ঞদের অংশ গ্রহণ ও কার্যকরী অবদান নিশ্চিত করা অপরিহার্য। এসব সিদ্ধান্ত গ্রহণে নিজেদের নির্দিষ্ট নীতিমালা থাকলে আমাদের প্রযুক্তি হস্তান্তরের উদ্দেশ্য সম্পর্কে বিদেশীদের স্পষ্টভাবে অবহিত করতে সক্ষম হবে। নতুবা এ ক্ষেত্রে পরনির্ভরশীলতা বেড়েই চলবে। উদাহরণ স্বরূপ উল্লেখ করা যায় নির্মাণ ও যন্ত্রপাতি আহরণের সময় স্থানীয়ভাবে কোন কোন অংশ প্রস্তুত করা যায় সে সম্পর্কে চিন্তা ভাবনা থাকা প্রয়োজন। অনেক সময় জাতীয় কোডস এবং স্ট্যান্ডার্ডস (Codes and Standards) এর অভাবে বিভিন্ন জাতের যন্ত্রপাতি আমদানী করা হয় যা পরবর্তী পর্যায়ে স্থানীয় শিল্পের বিকাশে অন্তরায় হয়ে যায়। এ বিষয় অভিন্ন জাতীয় মাপকাঠি প্রকল্প বাস্তবায়নে অনেক সহায়ক হবে।

বিভিন্ন উন্নয়ন ক্ষেত্রে ডিজাইন দক্ষতা বৃদ্ধি ডিজাইন কেন্দ্র স্থাপন, প্রযুক্তি ভিত্তিক গবেষণাগারের কর্মকাণ্ডের সাথে যোগসূত্র স্থাপন এবং একই সাথে দেশের বিভিন্ন শিল্প কারখানায় যন্ত্রাংশ উৎপাদনে অপরিহার্য হয়ে পড়েছে। দেশের বড় বড় শিল্প কারখানার এবং ভৌত অবকাঠামোর ডিজাইন সম্পূর্ণভাবে বিদেশের মাটিতে হচ্ছে। এ ধরনের পদক্ষেপ আমাদের আত্মনির্ভরশীলতার কার্যক্রম ক্রমেই পিছিয়ে দিচ্ছে। গবেষক ও নক্সা প্রস্তুত কারক রূপে স্থানীয় বিশেষজ্ঞদের ভূমিকা জোরদার করার কথা বেশ কিছুদিন ধরে আলোচনা হচ্ছে কিন্তু বাস্তব পদক্ষেপ এখনও নেয়া হয়েছে বলে মনে হয় না। তবে নিজের প্রতিষ্ঠানের যতটুকু সম্ভব ডিজাইনের কাজে বিদেশী বিশেষজ্ঞদের উপর নির্ভরশীলতা কমিয়ে আনার চেষ্টা অবশ্যই চালিয়ে যেতে হবে।

এদেশে বৈদেশিক সহায়প্রাপ্ত প্রকল্পের সংখ্যা ক্রমেই বেড়ে চলেছে। নিজস্ব নীতিমালার অভাবে নতুন প্রযুক্তির বিভিন্ন দিক মূল্যায়ন করার জন্য নির্ভর করতে হয় বিদেশী প্রতিষ্ঠান বা বিদেশী বিশেষজ্ঞদের ওপর। অর্থাৎ বিদেশের টাকায় বিদেশের প্রযুক্তি বিদেশীদের দ্বারা মূল্যায়ন প্রাপ্ত হয়ে দেশের মাটিতে এসে উপস্থিত হয়। এই মূল্যায়ন প্রক্রিয়ার সাথে দেশের বিজ্ঞানী ও প্রযুক্তিবিদগণ কতটুকু জড়িত থাকেন? নাকি তাঁরা নিবর দর্শকের ভূমিকা পালক করে থাকেন? এখানে কি কোনও অীতন নীতিমালা প্রণয়ন করা যায় না? দেশে খেত হস্তীর আগমন, নিজের বিশেষজ্ঞদের অবমূল্যায়ন আর প্রযুক্তি হস্তান্তর ক্ষেত্রে লক্ষ্যহীন ভবিষ্যতে আর কতদিন চলতে দেয়া যায়? প্রকল্প বাস্তবায়িত হয় কিন্তু প্রযুক্তি হস্তান্তর হয় না।

### আমদানীকৃত প্রযুক্তি আত্মস্থকরণ

আজ যে প্রযুক্তির আন্তর্জাতিক বাজারে মূল্য আছে সেটা যত্র তত্র ছাড়িয়ে থাকে না-আর হাত পাতলে পাবার মত বস্তু এটা না। প্রযুক্তির ক্ষেত্রে দাতা দেশ সত্যিকার অর্থে নেই বলেই চলে। নিঃশর্ত প্রযুক্তির হস্তান্তরের সুযোগ খুব কম তবে কড়ি দিয়ে কিনবার সুযোগ আছে। তাই

### মাহমুদ : প্রযুক্তি প্রেক্ষিত

কড়ি দিয়ে যেটা কেনা, সেটার সঠিক মূল্যায়ন, আত্মস্থকরণ, বিকাশ এবং প্রয়োগ বিদ্যা রঙ না করতে পারলে পদে পদে অপদস্থ হওয়ার সম্ভাবনা অনেক। হস্তান্তরের বাদ বাকি প্রক্রিয়া হল আত্মস্থকরণ, বিকাশ, পরিবর্তন, প্রয়োগ বিদ্যা রঙ করণ ও সম্প্রসারণ।

নতুন প্রযুক্তি আত্মস্থকরণের সময় আমরা এক বিবর্তন প্রক্রিয়ার মাঝ দিয়ে চলবার চেষ্টা করতে পারি; যেমন:

- ১। প্রযুক্তি/যন্ত্রপাতি রক্ষণাবেক্ষণ করা ও শেখা
- ২। প্রযুক্তি/যন্ত্রপাতি হবহ নকল করে তৈরী করার চেষ্টা
- ৩। প্রযুক্তি/যন্ত্রপাতি পরিবর্তন করে দেশযুগি করার চেষ্টা
- ৪। প্রযুক্তি/যন্ত্রপাতি উন্নয়নের উদ্যোগ
- ৫। নতুন প্রযুক্তি/যন্ত্রপাতি উদ্ভাবনের জন্য সৃজনশীল উদ্যোগ।

আমরা বেশীর ভাগ সময় শেষের ধাপগুলির দিক খুব একটা দৃষ্টিপাত করি না সে রকম মন মানসিকতা বা অবকাঠামো এখনও গড়ে ওঠেনি। অনেক সময় আমদানীকৃত কলকারখানা নিয়মিত চালু রাখা ও রক্ষণাবেক্ষণ করার মত প্রশিক্ষণ প্রাপ্ত হয়েই আমরা সন্তুষ্ট থাকি। সত্যিকার অর্থে কিন্তু এর দ্বারা সঠিক প্রযুক্তি হস্তান্তর হয় না। একে অনেকে স্ট্যাটিক টেকনোলজি ট্রান্সফার বলে আখ্যায়িত করেন। হস্তান্তর প্রক্রিয়ার বিভিন্ন ধাপ বা বিবর্তনের মাঝ দিয়ে প্রকৃত প্রযুক্তি হস্তান্তর সম্ভব। প্রযুক্তি স্তরে স্তরে উপরের দিকে এগিয়ে নিয়ে যাবার সুনির্দিষ্ট জাতীয় নীতিমালা বা কার্যক্রম থাকা আবশ্যিক। আমরা চেষ্টা করলে চালু প্রকল্পগুলিতে পরীক্ষা চালিয়ে দেখতে পারি হস্তান্তরের কোন পর্যায়ে অবস্থান করছি। পরবর্তী পর্যায়ে বা ধাপে উঠবার উপর খুঁজে বের করার প্রথম পদক্ষেপ হবে বর্তমান অবস্থান সঠিকভাবে নিদ্রারণ করা। প্রত্যেক প্রকল্পে আমরা কতদূর অগ্রসর হতে চাই সেটার রূপরেখা ছাড়া প্রকল্প হাতে নেয়া অনুচিত হবে।

একই সাথে আর একটি বিশেষ প্রয়োজনীয় কার্যক্রম হল নিয়মিত প্রশিক্ষণ ব্যবস্থা করে দক্ষ কর্মী তৈরী করা এবং প্রযুক্তি সম্প্রসারণের প্রতিষ্ঠানিক ব্যবস্থা গড়ে তোলা। আমাদের দেশে সম্প্রসারণ কেবল মাত্র কৃষি ক্ষেত্রে প্রযোজ্য বলে অনেকে মনে করেন। কিন্তু অন্যান্য ক্ষেত্রে বা যে সব উন্নয়ন কর্মকাণ্ডের সাথে কোনও প্রযুক্তির প্রয়োগ প্রয়োজন সেখানে সম্প্রসারণ ও প্রশিক্ষণের সুব্যবস্থা নিশ্চিত করার কথা একই সাথে চিন্তা করা কর্তব্য। সম্প্রসারণের অবকাঠামো না থাকলে প্রযুক্তি হস্তান্তর ব্যহত হবে।

### উপসংহার

বিজ্ঞান ও প্রযুক্তির সফল প্রয়োগ ক্ষমতা থাকলে যে কোনও দেশ অন্যান্য সম্পদের অভাবের উর্দ্ধে উঠতে পারে। প্রয়োগ কখন, কোন বিষয়, কি ভাবে সম্ভব-এই প্রশ্নের মাধ্যমে দেশে প্রস্তুত পণ্য দ্রব্য ও সেবা কিভাবে নিজের চাহিদা মিটিয়ে প্রতিযোগিতার ভিত্তিতে আন্তর্জাতিক বাজারে রঙানী করা যেতে পারে-এ সমস্ত প্রশ্নের উত্তর দিতে যথোপযুক্ত প্রযুক্তি পরিকল্পনার প্রয়োজন। প্রযুক্তি পূর্বাভাসের মাধ্যমে আগামী ১০-২০ বৎসরে দেশের চাহিদা

মেটাতে ও রপ্তানীযোগ্য কি কি পণ্য উৎপাদন ও সেবার ব্যবস্থা করা যায় সে সম্পর্কে একটা ভবিষ্যৎ রূপরেখা প্রস্তুত করা সম্ভব। প্রযুক্তি পূর্বাভাস ও পরিকল্পনার ছাড়া আজকের পৃথিবীতে উন্নয়নের ভবিষ্যৎ রূপরেখা সম্পর্কে চিন্তা করা অবাস্তব। বিজ্ঞান ও প্রযুক্তিভিত্তিক পরিকল্পনা ও অর্থনীতির আধুনিকায়নে যে ধরনের উন্নয়নের ধারা প্রবর্তনের প্রয়োজন তার চিন্তা ভাবনা আজ তাই আরো বেশী করে করতে হবে।

ব্যক্তিমালিকানাধীন উদ্যোগ যতই থাকুক না কেন, সারণীতে উল্লেখিত এশীয় দেশসমূহের অভিজ্ঞতা থেকে দেখা গেছে সফল প্রযুক্তি হস্তান্তর, আত্মস্থকরণ ও উদ্ভাবনার ক্ষেত্রে মহানায়ক হলেন সে দেশের সরকার। সরকারের সর্বোচ্চ পর্যায়ে থেকে আরম্ভ করে যে দেশে প্রতিটি পর্যায়ে প্রযুক্তি হস্তান্তরের ক্ষেত্রে পরিকল্পিত উদ্যোগ নেওয়া হয়েছে সে দেশই আজ কৃষি, শিল্প ও অন্যান্য ক্ষেত্রে পশ্চিমা দেশগুলির সাথে পাল্লা দিতে সক্ষম হয়েছে। প্রযুক্তি নীতিমালা দেশের অন্য সব নীতির উপর দিয়ে আড়াআড়িভাবে সম্পৃক্ত। ফলে প্রতিটি ক্ষেত্রে এর পতিফলন থাকতে হবে-শিল্পনীতি, কৃষিনীতি, বাণিজ্যনীতি, শিক্ষানীতি এমনকি কূটনীতির ক্ষেত্রে ও প্রযুক্তি নীতির প্রতিফলন থাকতে হবে। কেবল বিজ্ঞানী ও প্রযুক্তিবিদগণের আলোচনা বা কর্মকাণ্ডের মধ্যে সীমাবদ্ধ থাকলে দেশে প্রযুক্তির বিকাশ ঘটবে না। অর্থাৎ এক কথায় বলতে হয় দেশে প্রযুক্তির বিকাশ ঘটতে হলে প্রয়োজন এক সুপরিকল্পিত রাজনৈতিক সিদ্ধান্ত সরকারী পর্যায়ে দৃঢ় পদক্ষেপ এবং সকল পর্যায়ে এই লক্ষ্য ভিত্তিক কর্মসূচী।

#### পরিশিষ্ট

Table-A.1 : Index of Per Capita Income in Chosen Asian Countries Relative to that of Bangladesh.

| Year  | Korea<br>Taiwan | Thailand<br>Malaysia | Pakistan | India | Bangladesh |
|---|-----------------|----------------------|----------|-------|------------|
| Index of<br>per capita<br>income in<br>1950                                   | 1.5             | 1.5                  | 1.1      | 1.1   | 1.0        |
| Mean annual<br>rate of<br>growth of<br>per capita<br>income<br>during 1950-90 | 7               | 4                    | 2        | 1.5   | 0.5        |
| Index of<br>per capita<br>income in<br>1990                                   | 18              | 7                    | 2.27     | 1.81  | 1.22       |

# মাহমুদ : প্রযুক্তি প্রেক্ষিত

Table A.2-Sectoral Growth in Bangladesh Compared to its Neighbouring Countries in the 1980 s

| Period   | Bangladesh                            | India                                 | Pakistan                    | Thailand                           |
|--|---------------------------------------|---------------------------------------|-----------------------------|------------------------------------|
| <u>Agriculture</u>   |                                       |                                       |                             |                                    |
| %annual rate of growth: 1982-1986                                | 2.38                                  | 4.14                                  | 4.56                        | 4.77                               |
| <u>Manufacturing</u>   |                                       |                                       |                             |                                    |
| a. % annual rate of growth 1980-1987                             | 3.61                                  | 8.3                                   | 8.9                         | 6.0                                |
| b. Productivity: gross output per employee in 1986 with 1980=100 | 96                                    | 164                                   | 179                         | 140                                |
| <u>Overall GDP</u>   |                                       |                                       |                             |                                    |
| % annual rate of growth during the late 1980's                   | 3.36<br>(83-84 to 88-89)<br>(5 years) | 5.26<br>(84-85 to 89-90)<br>(5 years) | 6.6<br>(80-87)<br>(7 years) | 9.3<br>(1986 to 1989)<br>(3 years) |

Table-A.3 Technology Indicators for Bangladesh and Neighbouring Countries

| Variable                                     | Bangladesh | India | Nepal | Thailand | Korea |
|--|------------|-------|-------|----------|-------|
| 1. Population (millions)                     | 96         | 732   | 16    | 50       | 40    |
| 2. GDP (US \$ billion)                       | 13.5       | 180   | 2.12  | 35       | 80    |
| 3. % GDP from agriculture                    | 50         | 31    | 62    | 17       | 13    |
| 4. Gross savings as % of GDP                 | 2.27       | 22.8  | —     | 20.7     | —     |
| 5. % labour force in agriculture             | 75         | 70    | 93    | 71       | 36    |
| R & D  |            |       |       |          |       |
| 6. R & D in US \$ millions                   | 66         | 1424  | 3     | 119      | 1433  |
| 7. R & D as % of GDP                         | 0.44       | 0.79  | 0.15  | 0.29     | 1.53  |
| 8. S & T personnel per 1000 pop.             | 0.65       | 2.36  | 0.91  | 9.50     | 57.0  |
| 9. S & T personnel with post graduate degree | 3.46       | 22    | —     | 48       | —     |
| 10. Indust R & D as % of total               | 0.83       | 17.8  | —     | 8.3      | —     |
| 11. Personnel in R & D (ooo's)               | 126        | 2329  | 14    | 479      | 2345  |
| 12. Per capita R & D (US \$)                 | 0.95       | 1.94  | 0.03  | 2.3      | 35.2  |

Source: UN, ESCAP, (1989), Statistics for 1985 or a period close to that year.

Table-A.4 : Percentage of ADP Allocation Devoted to Research, Development and Design Activities\* (inc. Studies and Reports, Pilot Schemes and Basic Infrastructural Work). (The Actual Amount Meant for Research per se is Far Less. See Table A. 5)

| F/Y                   | 1980-81 | 1981-82 | 1982-83 | 1983-84 | 1984-85 |
|-----------------------|---------|---------|---------|---------|---------|
| <b>Sector</b>         |         |         |         |         |         |
| Industries            | 2.20    | 1.75    | 2.14    | 2.20    | 1.34    |
| Power*                | Nil     | Nil     | Nil     | Nil     | Nil     |
| Natural Resources     | 0.40    | 1.03    | 1.52    | 1.03    | 2.30    |
| Transport             | 0.02    | 0.002   | 0.12    | 1.29    | 1.25    |
| Communication         | Nil     | Nil     | Nil     | Nil     | Nil     |
| Health                | 6.70    | 6.87    | 6.06    | 1.74    | 3.75    |
| Agriculture           | 8.70    | 11.78   | 6.70    | 9.57    | 14.84   |
| Flood Control & Water |         |         |         |         |         |
| Resources             | 0.23    | 0.37    | 0.35    | 0.41    | 0.84    |

\* Allocation for Atomic Energy Commission have not been shown in this table

Source: Author.

Table-A.5 : Fraction Invested in R & D in the Industrial Sector of Bangladesh

| Year    | R & D<br>as % of ADP | R & D as %<br>of<br>Expenditure | R & D As % of<br>GDP (Industry<br>sector) |
|---------|----------------------|---------------------------------|---|
| 1980-81 | 0.10                 | 0.20                            | 0.03                                      |
| 1981-82 | 0.33                 | 0.50                            | 0.07                                      |
| 1982-83 | 0.06                 | 0.17                            | 0.02                                      |
| 1983-84 | 0.66                 | 0.70                            | 0.08                                      |
| 1984-85 | 0.81                 | 1.06                            | 0.08                                      |
| 1985-86 | 0.88                 | 1.03                            | 0.12                                      |
| 1986-87 | 0.79                 | 0.89                            | 0.14                                      |
| 1987-88 | 0.92                 | 1.08                            | 0.10                                      |

Source: LAT, BUET.

## PLANNING AND DEVELOPMENT OF ENERGY RESOURCES IN THE DRAFT FOURTH FIVE YEAR PLAN OF BANGLADESH

M. NURUL ISLAM\*

### INTRODUCTION

Planning and development of energy resources is an important component of Socio-Economic Development Plan. The objective of this paper is to highlight some of the important issues related to the planning of Energy Sector outlined in the Draft Fourth Five Year plan (DFFYP).

#### *Importance of Commercial Energy Sources*

Energy is a crucial input for economic development and for improving the quality of life. Acceleration of growth in both industrial and agricultural sector, as envisaged in the Fourth Five Year Plan will lead to increase in energy demand, particularly of commercial fuels, since the bulk of the increase in demand can be expected to come from the productive sectors of the economy (Para 7.1).

Analysis of the data presented in Table 1 and Table 2 indicate the following. The demand of total energy and commercial energy will increase from 682.9 PJ and 183.9 PJ in 1990 to 845 PJ and 281.6 PJ in 1995. For the corresponding period the demand of total energy and commercial energy in industry and agriculture (combined) will increase from 203.9 and 111.2 PJ to 293.1 PJ and 178.2 PJ respectively. It shows that around 54.3 per cent of the increase in total energy and 68.4 per cent of the increase in commercial energy will be consumed by industry and agriculture sector for productive purposes.

#### *Importance of Biomass Fuels*

Bangladesh is a low energy using subsistence type economy, whose energy use is dominated by non-commercial fuels (Para 7.2). Analysis of available data indicate the following. Of the total primary energy consumed

\* Director, Institute of Appropriate Technology, Bangladesh University of Engineering and Technology.

(763.2 PJ) in 1990, non-commercial biomass fuels supplied 499 PJ. (65.4 per cent of total energy). The consumptions of total primary energy and non-commercial biomass fuels in 1995 are estimated as 965.2 PJ and 563.4 PJ (58.4 per cent of total energy) respectively. Total final energy consumption in 1990 is estimated as 682.9 PJ and the share of domestic sector (meeting subsistence requirement) is estimated as 64.8 per cent (442.3 PJ). Total final energy consumption in 1995 and the share of domestic sector are estimated as 845 PJ and 492.9 PJ (58.3 per cent of total final energy) respectively. Above presentation indicate that major portion of the total energy is supplied by biomass fuels and major portion of the total final energy is consumed in domestic sector to meet subsistence requirement.

#### *Development of Power Sector*

Power is an essential infrastructure for economic growth and per capita energy consumption is one of the indicators of the stage of economic development of a country. In recognition of this fact power development had been accorded very high priority since emergence of Bangladesh. As a result power development had been quite fast over the last eighteen years. The per capita energy generation in 1970 was 14.5 kwh and increased to 70 kwh in 1990. The Fourth Five Year Plan aims at raising the per capita energy generation to 126 kwh in 1995 with an estimated growth rate of 12.0 per cent in terms of energy (Para 7.17).

It needs to be stressed that per capita energy consumption is an important indicator of the stage of development; but energy and power is not synonymous. Therefore, development of power sector should not be confused as the development of total energy sector. Although electricity is the superior form of energy, due to techno-economic reasons it is neither possible nor desirable to meet all the energy needs by electricity. Superior form of energy must not be used for a particular end use that can be done by other inferior form of energy.

It may be seen from Table 1 that the electricity contributed only 2.8 per cent of total final energy and 10.4 per cent of total commercial energy consumed in 1990. The contributions of electricity in total energy and in commercial energy in 1995 are estimated as 4.3 per cent and 12.9 per cent respectively. It may be noted that a small part of total final energy and commercial energy resources is consumed as electricity.

Table-1 : Total Energy Balance of Bangladesh in 1990 (In Peta Joule)

| Table-1 : Total Energy Balance of Bangladesh in 1990 (in Peta Joule) |                   |           |                |                  |               |             |          |            |          |                 |               |           |
|--|-------------------|-----------|----------------|------------------|---------------|-------------|----------|------------|----------|-----------------|---------------|-----------|
| Description  | Commercial Energy |           |                |                  | Biomass Fuels |             |          |            |          |                 |               |           |
|  | Natural Gas       | Crude Oil | TOTAL Products | Petroleum ENERGY | Coal          | Electricity |          | Total      |          | Agric. Residues | Tree Residues | Fuel Wood |
|  |                   |           |                |                  |               | commercial  | Residues | commercial | Residues |                 |               |           |
| I SUPPLY   |                   |           |                |                  |               |             |          |            |          |                 |               |           |
| Primary Production   | 163.4             | x         | 2.7            | x                | 3.3           | 169.4       | 316.6    | 22.5       | 88.2     | 71.7            | 499.0         | 668.4     |
| Imports  | x                 | 53.4      | 48.0           | 12.3             | x             | 113.7       | x        | x          | x        | x               | x             | 113.7     |
| Export   | x                 | x         | -6.3           | x                | x             | -6.3        | x        | x          | x        | x               | x             | -6.3      |
| Stock Exchange   | x                 | -5.9      | -6.8           | 0.1              | x             | -12.6       | x        | x          | x        | x               | x             | -12.6     |
| Total Primary  | 163.4             | 47.5      | 37.6           | 12.4             | 3.3           | 264.2       | 316.6    | 22.5       | 88.2     | 71.7            | 499.0         | 763.2     |
| Primary Percent  | 21.4              | 6.2       | 4.9            | 1.6              | 0.4           | 34.5        | 41.5     | 2.9        | 11.6     | 9.4             | 65.4          | 99.9      |
| II TRANSFORMATION  |                   |           |                |                  |               |             |          |            |          |                 |               |           |
| Refinery   | -1.0              | -47.5     | 44.1           | x                | x             | -4.4        | x        | x          | x        | x               | x             | -4.4      |
| Thermal Power  | -69.3             | x         | -8.8           | x                | 24.4          | -53.7       | x        | x          | x        | x               | x             | -53.7     |
| Losses and Own Use   | -9.9              | x         | -4.0           | x                | -8.3          | -22.2       | x        | x          | x        | x               | x             | -22.2     |
| Total Final Supply   | 83.2              | x         | 68.9           | 12.4             | 19.4          | 183.9       | 316.6    | 22.5       | 88.2     | 71.7            | 499.0         | 682.9     |
| III CONSUMPTION  |                   |           |                |                  |               |             |          |            |          |                 |               |           |
| 1. Domestic  | 9.3               | x         | 23.6           | x                | 4.9           | 37.8        | 243.0    | 22.5       | 67.3     | 71.7            | 404.5         | 442.3     |
| 2. Industrial  | 14.0              | x         | 7.0            | 9.5              | 10.0          | 40.5        | 73.6     | x          | 19.1     | x               | 92.7          | 133.2     |
| 3. Commercial  | 3.1               | x         | x              | 0.4              | 3.6           | 7.1         | x        | x          | 1.8      | x               | 1.8           | 8.9       |
| 4. Transport   | x                 | x         | 25.0           | 2.5              | x             | 27.5        | x        | x          | x        | x               | x             | 27.5      |
| 5. Agriculture   | x                 | x         | 11.0           | x                | 0.9           | 11.9        | x        | x          | x        | x               | x             | 11.9      |
| 6. Others  | x                 | x         | 0.3            | x                | x             | 0.3         | x        | x          | x        | x               | x             | 0.3       |
| 7. Non Energy Use  | 56.8              | x         | 2.0            | x                | x             | 58.8        | x        | x          | x        | x               | x             | 58.8      |
| Total Final Consumption  | 83.2              | x         | 68.9           | 12.4             | 19.4          | 183.9       | 316.6    | 22.5       | 88.2     | 71.7            | 499.0         | 682.9     |
| Final Energy Per cent  | 13.2              | x         | 10.1           | 1.8              | 2.8           | 26.9        | 46.4     | 3.3        | 12.9     | 10.5            | 73.1          | 100.0     |

Conversion Factors :

Natural Gas : 1 MMCF = 0.00099 PJ; Crude Oil : 1000 Tonne = 0.0427 PJ; Petroleum Products (Average): 1000 Tonne = 0.0427 PJ; Coal : 1000 Tonne = 0.027 PJ; Electricity 1 GWh = 0.0036 PJ; Agri. & Tree Res. : 1000 Tonne = 0.0125 PJ; Fuel Wood 1000 Tonne = 0.0151 PJ; Dung : 1000 Tonne = 0.0116 PJ.

Table-2 : Total Energy Balance of Bangladesh in 1995 (In Peta Joule)

| Table-2 : Total Energy Balance of Bangladesh in 1995 (in Petajoule) |                   |       |                 |                  |                  |             |         |       |        |                    |            |          |          |
|---|-------------------|-------|-----------------|------------------|------------------|-------------|---------|-------|--------|--------------------|------------|----------|----------|
| Description   | Commercial Energy |       |                 |                  | Biomass Fuels    |             |         |       |        |                    |            |          |          |
|   | Natural Gas       |       | Crude Petroleum |                  | Coal             | Electricity | Total   |       | Agric. | Tree               | Fuel       | Dung     | Total    |
|   | TOTAL             |       | Oil             |                  | Products         |             | Biomass |       | ENERGY |                    | Commercial | Residues | Residues |
| I SUPPLY  | 272.3             | (a)   | 4.3             | x                | 4.3 <sup>b</sup> | 280.9       | 73.5    | 563.4 | 23.1   | 120.6 <sup>c</sup> | 23.1       | 563.4    | 844.3    |
|   | x                 | 64.0  | 46.5            | 19.7             | x                | 130.2       | x       | x     | x      | x                  | x          | x        | 130.2    |
|   | x                 | x     | -9.3            | x                | x                | -9.3        | x       | x     | x      | x                  | x          | x        | -9.3     |
|   | x                 | x     | x               | x                | x                | x           | x       | x     | x      | x                  | x          | x        | x        |
|   | 272.3             | 64.0  | 41.5            | 19.7             | 4.3              | 401.8       | 73.5    | 563.4 | 23.1   | 120.6              | 23.1       | 563.4    | 965.2    |
| Primary Per cent  | 28.2              | 6.6   | 4.3             | 2.0              | 0.4              | 41.5        | 7.6     | 58.4  | 2.4    | 12.5               | 2.4        | 58.4     | 99.9     |
| II TRANSFORMATION   | -1.0              | -64.0 | 62.3            | x                | x                | -2.7        | x       | x     | x      | x                  | x          | x        | -2.7     |
|   | -128.7            | x     | -12.8           | x                | 43.9             | -97.6       | x       | x     | x      | x                  | x          | x        | -97.6    |
|   | -4.9              | x     | -2.9            | x                | -12.1            | -19.9       | x       | x     | x      | x                  | x          | x        | -19.9    |
|   | 137.7             | x     | -88.1           | 19.7             | 36.1             | 281.6       | 73.5    | 563.4 | 23.1   | 120.6              | 23.1       | 563.4    | 845.0    |
|   |                   |       |                 |                  |                  |             |         |       |        |                    |            |          |          |
| III CONSUMPTION   | 14.9              | x     | 24.3            | x                | 8.7              | 47.9        | 73.5    | 445.0 | 23.1   | 88.6               | 23.1       | 445.0    | 492.9    |
|   | 23.8              | x     | 10.0            | 13.5             | 16.7             | 64.0        | x       | 114.9 | x      | 28.5               | x          | 114.9    | 178.9    |
|   | 4.9               | x     | x               | 2.6              | 8.4              | 15.9        | x       | 3.5   | x      | 3.5                | x          | 3.5      | 19.4     |
|   | x                 | x     | 36.0            | 3.6 <sup>d</sup> | x                | 39.6        | x       | x     | x      | x                  | x          | x        | 39.6     |
|   | x                 | x     | 17.8            | x                | 2.3              | 20.1        | x       | x     | x      | x                  | x          | x        | 20.1     |
|   | x                 | x     | x               | x                | x                | x           | x       | x     | x      | x                  | x          | x        | x        |
|   | 94.1              | x     | (e)             | x                | x                | 94.1        | x       | x     | x      | x                  | x          | x        | 94.1     |
| 7. Non Energy Use   | 137.7             | x     | 88.1            | 19.7             | 36.1             | 281.6       | 73.5    | 563.4 | 23.1   | 120.6              | 23.1       | 563.4    | 845.0    |
| Total Final Consumption   | 16.3              | x     | 10.4            | 2.3              | 4.3              | 33.3        | 8.7     | 66.7  | 40.9   | 2.7                | 14.3       | 66.7     | 100.0    |
| Final Energy Per cent   |                   |       |                 |                  |                  |             |         |       |        |                    |            |          |          |

Conversion Factors :

Natural Gas : 1 MMCF = 0.00099 PJ, Crude Oil : 1000 Tonne = 0.0427 PJ; Petroleum Products (Average): 1000 Tonne = 0.0427 PJ; Coal : 1000 Tonne = 0.027 PJ; Electricity 1 GWh = 0.0036 PJ; Agri & Tree Res.: 1000 Tonne = 0.0125 PJ; Fuel Wood: 1000 Tonne = 0.0151 PJ; Dung : 1000 Tonne = 0.0116 PJ.

In Bangladesh traditionally energy sector got priority attention in terms of allocation of development funds (Table 3). Within energy sector development of power sector got special attention in terms of fund allocation (Table 4). Probably the time has come to reassess the priority among different sub-sectors (e.g. power, oil and gas, coal and peat, rural and renewable) within energy sector. Development of indigenous primary energy resources (e.g. natural gas, oil, coal, peat etc.) should receive more attention than the development of secondary source of energy like electricity. It is also necessary to assess that whether over encouragement to develop electricity generation facilities has lead to its inefficient use as indicated by high system losses.

#### *Development of Oil, Gas and Minerals*

The present oil, gas and mineral base of the country is very weak and their per capita consumption is very low (Para 7.66). Bangladesh has reasonably good reserve of natural gas and peat. In recent time coal has also been found in different locations. Except natural gas, development of other sources of commercial energy did not get adequate attention in the past. There is a need to assess the necessary fund requirement for the development of indigenous energy sources on a priority basis.

#### *Development of Rural and Renewable Energy*

Development of Rural and Renewable Energy has been the most ill conceived and neglected component of national energy plan. Common characteristics of this section are as follows :

- (a) Full of rhetoric about the importance of rural energy in national development and prospect of different alternate energy sources.
- (b) Full of excuses (projects have been considered by other sub-sectors such as power, oil and gas, forestry etc.) for not undertaking major projects.
- (c) Lack of understanding in conceiving useful development projects. Selected projects are of academic and research in nature.
- (d) Lack of commitment of financial resources
- (e) Lack of seriousness in implementing projects with the excuse of having no extension agency under the Ministry of Energy.

#### *Need for Intergrated Energy Planning*

It has been discussed in previous paragraphs that in 1990, different type of commercial energy resources supplied 34.5 per cent of total primary

energy and the balance 65.4 per cent is supplied by non-commercial biomass fuels. In Bangladesh, energy sector planning considers the planning, development and management of commercial energy resources. Planning, development and management of biomass fuels are left to the individual households except the supply of fuel wood from some national forests.

For rational use of available resources planning and development of all the different type of energy sources should be considered in an integrated manner. Otherwise unbalanced attention for the development of a particular sub-sector may result in under-development of other sectors. Over exploitation of biomass fuels; non-exploitation of known reserves of commercial energy sources are some examples.

Table-3 : Allocation Trends in National Plan for Energy (Commercial Energy) Sector Development.

| Sectors     | 1973-78<br>Per cent | 1978-80<br>of Total | 1980-85<br>Public Sector | 1985-90<br>Allocation | 1990-95 |
|-------------|---------------------|---------------------|--------------------------|-----------------------|---------|
| Agriculture | 24.0                | 25.0                | 29.8                     | 28.2                  | 27.1    |
| Industry    | 19.7                | 22.0                | 9.0                      | 10.4                  | 10.3    |
| Energy      | 11.4                | 11.1                | 22.0                     | 22.7                  | 20.5    |
| Transport   | 13.4                | 18.0                | 12.7                     | 12.1                  | 16.7    |
| Others      | 31.5                | 23.9                | 26.5                     | 26.6                  | 25.4    |

Table-4 : Allocation Trends in Different Sub-Sectors of Energy Sector.

| Sub-sectors                    | 1973-78  | 1978-80           | 1980-85            | 1985-90          | 1990-95            |
|--------------------------------|--|-------------------|--------------------|------------------|--------------------|
|                                | Allocation in Tk. Million (Per cent of total allocation) |                   |                    |                  |                    |
| Oil, Gas and Natural Resources | 817.50<br>(16.2)   | 1365.10<br>(31.6) | 6,145.1<br>(29.7)  | 12,950<br>(23.1) | 19,000<br>(22.8)   |
| Power                          | 4235.50<br>(83.8)  | 2955.40<br>(68.4) | 14,360.0<br>(69.3) | 42,850<br>(76.5) | 64,229.4<br>(76.9) |
| Renewable and Others           |  |                   | 200<br>(1.0)       | 200<br>(0.4)     | 270.6<br>(0.3)     |
| Total allocation (Per cent)    | 5053<br>(100)  | 4320.50<br>(100)  | 20,705.1<br>(100)  | 57,800<br>(100)  | 83,500<br>(100)    |

Source : FYP : 334p, 369p; TYP : 185p, 201p; SFYP : 207p, 217p, 219p; TFYP : 261p, 272p, 278p; FFYP : VII-36, VII-59, VII-76.

## ENERGY DATA BASE

Availability of reliable data base on energy resources, existing consumption and future demand is the most important condition for national energy planning. In DFFYP, an important addition with reference to energy data base is the presentation of total energy balance consisting of

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both commercial energy sources and biomass fuels for the year 1990 and 1995 (Table 1 & Table 2). This type of table is useful for integrated planning of national energy sources. In previous plan documents energy balance tables were presented for commercial energy resources only. The following presentation is made to highlight the quality of available energy data base.

### ENERGY RESOURCES AND THEIR CONSUMPTION

#### *Natural gas*

Total reserves of natural gas in 15 gas fields (14 on shore and 1 off shore) is estimated as  $13 \times 10^{12}$  cubic feet ( $0.368 \times 10^{12}$  cubic metres) of which  $1.35 \times 10^{12}$  cubic feet ( $0.0382 \times 10^{12}$  cubic metres) have been consumed during the period from 1960-1990. All the natural gas fields are located in the Eastern Zone of the country. Bangladesh has reasonably good experience in extraction and management (transmission, distribution) of natural gas.

Total consumption of natural gas in 1990 is estimated as  $0.165 \times 10^{12}$  cubic feet ( $0.0047 \times 10^{12}$  cubic metres). Various end uses of natural gas is reported as follows : refinery 0.6%, power 42.4%, losses and own use 6.1%, domestic 5.7%, industrial 8.6%, commercial 1.9% and fertilizer 34.8%.

#### *Coal*

Coal reserves have been discovered in three locations of the western Zone : Jamalganj (Bogra), Barapukuria (Dinajpur), Peerganj (Rangpur). Total coal reserves at Jamalganj is 1000 million tonnes and is situated at a depth of 1000 metres. Extractable reserve varies between 50-100 million tonnes. So far the extraction has not been possible due to techno-economic reasons. Estimated reserves in situation at Barapukuria and Peerganj are 250 million tonnes and 400 million tonnes at a depth of 160 metres. Feasibility study of Barapukuria coal is expected to complete by 1990. Extractable amount of coal from Barapukuria and Peerganj are not known. Bangladesh has no experience on extraction of coal. Barapukuria coal was discovered in 1985. It is taking about five years to complete the feasibility study for commercial extraction.

Total consumption of coal in 1990 is reported as 4,58,000 tons and is met from imported sources. Various end uses of coal were reported as follows : industry (brick) 76.6%, commercial 3.2% and transport 20.2% (Table 1). It is not clear where coal is used in transport system.

### Peat

Total peat reserves in Bangladesh are reported as 600 million tonnes, of which 133 million tonnes are located at Faridpur and Khulna regions. Average depth of peat layers in Khulna and Faridpur regions vary between 2-2.5m with the over burden layers of 1-1.5m. Total extractable quantity of peat is not known. Bangladesh has no experience in commercial extraction of peat. But the experiences of construction of earth embankments in different parts of the country may be applied for peat extraction. At present (small quantity of) peat is extracted in some rural locations during dry season for local consumption.

### Oil

Haripur oil field has a reserve of 40 million barrels ( $5.47 \times 10^6$  tonnes), of which only 30 per cent ( $1.64 \times 10^6$  tonnes) is reported as recoverable. Total amount of primary supply of petroleum (crude + petroleum products) in 1990 is estimated as  $1.995 \times 10^6$  tonnes; of which 64,000 tonnes (3%) is obtained from local sources. The indigenous production of petroleum products probably include natural gas condensate. It is not clear why the use of local crude was not shown in the energy balance table. Various end use of the total petroleum products ( $1.995 \times 10^6$  tonnes) in 1990 are : losses and own use 8.7%, power 10.3%, domestic 27.7%, industrial 8.2%, transport 29.4%, agriculture 12.9%, others 0.3%, non energy use (lubricant, solvent, industrial raw materials) 2.4%.

It may be noted that petroleum fuels contributed 32.2 per cent of commercial fuels and 11.1 per cent of total primary fuels consumed in 1990. It may be recalled that in 1982, the import of  $1.58 \times 10^6$  tonnes of petroleum fuels consumed nearly 90 per cent of our export earning. Due to Middle East crisis in 1991, in order to import  $13.9 \times 10^6$  barrels ( $1.9 \times 10^6$  tonnes) petroleum we are to add US\$  $13.9 \times 10^6$  per dollar increase in price of crude in the international market.

### Hydropower

Total hydropower potential of Bangladesh is 1500 GWh per annum; located at Kaptai (1000 GWh), Matamuhury (300 GWh) and Sangu (200 GWh). Total electricity generated in 1990 was 7700 GWh, of which 925 GWh (12.0 per cent) was generated by five hydropower units located at Kaptai ( $2 \times 40$  MW +  $3 \times 50$  MW = 230 MW). There is a need to assess the environmental impacts of Kaptai hydropower plant and its subsequent socio-economic impacts on local population to decide future strategies for hydropower development.

*Power*

Total generation and sale (official consumption) of electricity in 1990 are reported as 7700 GWh and 5390 GWh respectively. The balance quantity 2310 GWh (30 per cent of total generation including hydropower) is reported as losses and own use. There is an urgent need to ascertain the quantity of technical losses (which is inevitable for a particular technological condition of the generating system) and non-technical losses (which is due to inefficient management of the system). The amount of electricity termed as non-technical losses are actually consumed but revenues are not deposited in government account.

The reduction of system losses has not been considered seriously in the past. Target was set at the beginning of plan period, probably to get support for higher allocation in power sector. Once the allocation was made little care was taken even to maintain the system losses at bench mark level. As for example, it was proposed that during Third Five Year Plan system losses were to be reduced from 29 per cent in 1985-86 to 20 per cent in 1990. In reality system losses increased to 42 per cent in 1988 and were 34.2 per cent and 30 per cent in 1988-89 and 1989-90 respectively.

Various reasons shown in DFFYP (Para 7.25) for unmanaged system losses during Third Five Year Plan are as follows : Overloading of the distribution system, poor maintenance inadequate renovation of old transmission and distribution lines, inadequate meters and poor billing system, poor power factor as well as pilferage and theft etc. In the absence of any quantitative analysis about the contribution of each of the above mentioned factors in total system losses it is not possible to decide the strategies for reducing System losses. One can make only pious wishes but that will remain unfulfilled in one plan after another.

It is reported in DFFYP (Para 7.38) that Power Development Board has undertaken various measures (establishment of System Loss Monitoring Unit, implementation partly of system Loss Reduction Scheme and other administrative measures) to reduce system losses. It is mentioned that the immediate goal to reduce system loss would be to reduce non-technical losses through administrative measures and long-term goal is to reduce technical losses. No indication has been made in the plan document about the proportion of non-technical and technical losses. It is difficult to understand how the Power Development Board would reduce the system losses without assessing the contribution of different factors in total system losses.

It is proposed that during Fourth Five Year Plan system losses will be reduced from 30 per cent in 1990 to 25 per cent in 1995. According to the proposed targets of system loss reduction, the loss of absolute quantity of electrical energy will increase from 2310 GWh in 1990 (30 per cent of electrical generation of 7700 GWh) to 3394 GWh in 1995 (25 per cent of total electricity generation of 13,577 GWh). It is not clear whether this increase in loss of electrical energy (46 per cent increase in comparison to the loss of 1990) would be due to the technical losses of newly installed power plants during the plan period.

Sometimes it is argued (of course unofficially) that unauthorised consumption of electricity (non-technical system losses) is contributing in GDP. Therefore, there is no need to link the reduction in system losses with the expansion of power generation facilities. It may be mentioned that when a resource is available at a cost cheaper than its market price or its economic cost, there is every possibility of its irrational use. In many cases unauthorised use of electricity is encouraging its inefficient use (e.g. use of electricity for cooking, heating). Therefore, for rational energy (power) planning, the planners must know the nature of the end uses. Actual supply of electrical energy is to be matched with the consumption, to forecast the future demand, and then consider future generation.

#### *Biomass Fuels*

Biomass is defined as all organic matters produced by photosynthesis process in plant kingdom. Depending upon their characteristics and quality, biomass resources are used as food, fodder, building materials industrial raw materials, fuel and manure. Only a fraction of total biomass produced by photosynthesis process is used as fuel. Biomass is the major source of fuel in Bangladesh and is available from three sources: trees, field crops and livestock.

It has been discussed in previous sector that biomass fuels, play an important role in meeting total energy need of the country and will continue to be so in the foreseeable future. Unfortunately this is also the most neglected area in terms of planning and development. Various resources used as biomass fuels (agricultural residues, fuelwood, animal dung) are mostly obtained as byproducts. Planning and development generally consider the main products (e.g. agricultural crop, timber, livestock etc.) rather than the byproducts. Moreover, except the fuelwood extracted from national forests, other biomass fuels (e.g. agricultural residues, wood fuels from village forests, animal dung) are not considered in national accounting

system. As a result, so far, the planning and development of biomass fuels, have been left to the judgement of individual households.

In a densely populated resource scarce country like Bangladesh, unplanned use (consumption beyond regenerative limits) of biomass fuels may cause serious environmental consequences, which may affect agricultural production. There is a need to pay priority and continuing attention for the sustainable development of biomass fuels. In order to achieve and maintain sustainable development, planning and development of biomass fuels will have to be considered along with commercial fuels under an Integrated National Energy Plan.

Sometimes it is argued that biomass fuel (traditional fuel) is inferior in quality and there is no need to pay much attention for their development. All our efforts should be addressed for the development of modern fuels (commercial fuels). It needs to be stressed that the development of modern fuels need to be matched with their prospective demand. Availability of modern fuels may not automatically ensure their effective demand. In the present economic condition of the country there is no reliable and cheap substitute to biomass fuels.

At present biomass fuels are used for domestic cooking and in rural industries (for heating). Technically, it is not possible to reach the majority of the biomass fuel consumers, with piped natural gas, because of their scattered settlements. Imported kerosene and furnace oil can be used to substitute biomass fuels consumed in domestic and industrial sectors. Assuming an end use efficiency of 10 per cent for biomass fuels and 30 per cent for petroleum fuels it would have require  $3.3 \times 10^6$  tonnes of petroleum fuels to substitute 499 PJ biomass fuels consumed in 1990. It means that it would have required to increase the petroleum consumption by 317 per cent. Can we afford to import the additional quantity of petroleum fuels? Even if it is imported do the consumers have the purchasing power? Quantity of LPG required to substitute 499 PJ biomass fuels is  $2.1 \times 10^6$  tonnes (assuming 10 per cent efficiency for biomass fuels and 50 per cent efficiency for LPG).

In Bangladesh there is adequate national capabilities to gather and analyse data required for planning and development of biomass fuels but due to lack of understanding for its planned (sustainable) development, very limited action has been taken in this respect. As result data on biomass fuel resources, potential (sustainable) supply of biomass fuel, their consumption, process of commercialisation prospect of substitution with

commercial fuels and future consumption pattern have not been estimated on a reliable basis. In general these are more of guess works rather than estimates.

Land is the ultimate resource base that supports the production of total biomass resources including biomass fuels. Different sources of biomass fuels are listed below:

|  |                             |
|--|-----------------------------|
| Forest area: $5.4 \times 10^6$ acres             | (wood fuels)                |
| Village Forest: $0.74 \times 10^6$ acres         | (wood fuels)                |
| Fallow and wastes: $2.02 \times 10^6$ acres      | (wood fuels plant residues) |
| Net field cropped area: $20.8 \times 10^6$ acres | (agricultural residues)     |
| Livestock (Number): 21 million                   | (animal dung).              |

Estimated supply of different type of biomass fuels in 1989-90 is reported as follows:

| Type of Fuel          | Million Tonnes | Peta Joule | %     |
|-----------------------|----------------|------------|-------|
| Agricultural residues | 25.33          | 316.6      | 63.4  |
| Tree residues         | 1.80           | 22.5       | 4.5   |
| Fuel wood             | 5.84           | 88.2       | 17.7  |
| Animal dung           | 6.18           | 71.7       | 14.4  |
|                       |                | 499.0      | 100.0 |

The following observations may made about the biomass fuels supply data presented in the draft document.

- Whether the estimated supply data indicate the actual supply matched with consumption or assumed supply (probably assumed supply).
- Nothing has been mentioned about sustainability of biomass fuels supply. The review of the information in forestry section indicate heavy over exploitation of available tree resources.
- There is inconsistency between the fuel wood supply quoted in the text (3.76 million tonnes) and in Table 7.1 (5.84 million tonnes).

It may be noted that of the total biomass fuel consumed 17.7 per cent was supplied by fuel wood. Burning of large amount of agricultural residues (63.4% of total biomass fuels) and animal dung (14.4% of total biomass fuels) is an indication of the scarcity of fuel wood.

Of the total biomass fuels consumed (499 PJ) in 1990, 81.1 per cent was consumed in domestic cooking, 18.5 per cent in industries and 0.4 per cent in commercial units.

## OTHER ENERGY SOURCES

### *Animal Power:*

In Bangladesh draft animal power plays a very important role in agricultural production and rural transport. According to Livestock Survey 1983-84 there were 21.18 million cattle in Bangladesh. Total number of working cattle was estimated as 11.06 million, of which 99 per cent were in rural area and 1 per cent in urban area. Various end-uses of the working cattle were estimated as: cultivation 89.7 per cent, transport 1.1 per cent, cultivation and transport 5.1 per cent and others 4.2 per cent.

Ministry of Livestock and Fisheries is responsible for the development of livestock resources in the country. But when there is shortage of working cattle, the demand is met by mechanisation by using commercial fuels.

In recent years more and more power tillers are being used for agricultural activities. Estimated energy consumption in agriculture and its future demand should also consider the energy consumption for tillage along with the energy consumption for irrigation.

### *LPG*

In DFFYP, Liquefied Petroleum Gas (LPG) has been classified as an alternative fuel. LPG is obtained as byproducts of petroleum refining and natural gas extraction process. Therefore, production and use of LPG should be considered similar to other petroleum products and natural gas. Separate treatment of LPG as an alternative fuel is unnecessary and misleading; it may lead to double accounting.

LPG plant at Chittagong near Eastern Refinery Ltd. has the production capacity of 13,000 tonnes per year. At present the plant is producing 9000 tonnes per year, of which 75 per cent is utilised in Chittagong area and 15-20 per cent is supplied to the Western Zone.

It is mentioned in DFFYP that if LPG is extracted from natural gas wells at Kailashtilla, Bakhrabad and Titas in the near future it would be possible to produce 1,20,000 tonnes of LPG per year. It is reported that LP-Gas Limited has planned to install two bottling plants during FFYP to produce 40,000 tonnes per year. It may mentioned that in comparison to the total energy demand contribution of LPG would be very limited.

### *Solar Energy*

The average daily solar radiation in Bangladesh varies from 5.05 kwh/m<sup>2</sup> in winter to 8.36 kwh/m<sup>2</sup> in summer. Traditionally solar energy is used for

producing salt, drying crops and fish. Because of high cost, solar photovoltaic system is finding very limited application in Bangladesh.

#### *Wind Power*

It is estimated that average wind speed in Bangladesh is about 3 metres or less; there is very limited opportunity (may be in the coastal areas) for the application of wind mills for pumping and electricity generation.

#### **ENERGY DEMAND ANALYSIS**

Total energy demand of the country in 1995 is shown in DFFYP (Table 7.2). Modified version of the data presented in that table is shown in Table 2 expressed in standard head unit (Peta Joule). The following observations may be made with reference to the data presented in the Energy Balance Table, 1995.

- (a) The production of indigenous crude oil (from Haripur oil field) has not been shown in the energy balance table.
- (b) There is no explanation given about how the generation capacity of hydropower would be increased from present capacity of around 1000 GWh (3.6 PJ) per year to 1200 GWh (4.3 PJ) per year.
- (c) There is no explanation given how the increase in supply of fuel wood will be achieved upto the level of  $8.0 \times 10^6$  tonnes (120.6 PJ). What is the sustainable yield of fuel wood in Bangladesh?
- (d) The consumption of 1,35,000 tonnes (3.6 PJ) of coal is estimated in transport sector. No explanation is given about the type of transport in which coal will be used.
- (e) No estimate is given in the Energy Balance table about Non-Energy use of petroleum products (e.g lubricants, industrial solvent etc.)
- (f) No observation is made about the change in consumption pattern due to implementation of energy conservation projects.

#### *Domestic Sector*

It is estimated that during the planning period the share of domestic sector in total energy demand will decrease from 64.8 per cent in 1990 to 58.3 per cent in 1995. It is estimated that the energy consumption will grow at the rate 2.1 per cent per annum, which is similar to TFYP. The composition of different type of fuels in 1990 were as follows; biomass fuels 91.5%, commercial 8.5% (natural gas 2.1%, petroleum fuels 5.3%, electricity 1.1%). It is estimated that the composition of different type of fuels in 1995 will be as follows; biomass fuels 90.3%, commercial fuels 9.7% (natural gas 3.0%, petroleum fuels 4.9%, electricity 1.8%).

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In domestic sector biomass fuels are used for cooking both in rural and urban areas. Natural gas is used for cooking in urban areas having gas pipe network. Electricity is generally used for lighting both in rural and urban areas. Kerosene is used for cooking mainly in urban areas and lighting both in rural and urban areas. Of the total energy used in domestic sector about 90-95 per cent is used for cooking and about 5 per cent is for lighting.

It may be observed from the above presentation that during FFYP commercial fuels (natural gas, kerosene, electricity) will make very little additional contribution in domestic sector. It means that over-whelming dependence on biomass fuels will continue. Available information indicate that the existing consumption of biomass fuels are met by over exploitation. In this context, continued heavy dependence on biomass fuels would seriously affect the productive environment.

In addition to existing policies of expanding natural gas and distributing kerosene the following strategies should be considered to reducing kerosene the following strategies should be considered to reduce dependence on biomass fuels in domestic sectors.

- (a) Large scale diffusion of improved stoves to conserve biomass fuels.
- (b) Diffusion of improved kerosene burners to save kerosene.
- (c) Distribution (marketing) of coal for domestic cooking.
- (d) Extraction, and utilisation of peat for domestic cooking and in biomass fuel burning rural industries.
- (e) Marketing of LPG in non-gas zones on a priority basis (at present 75% of LPG is consumed in Chittagong).

### *Industrial Sector*

It is reported that during TFYP industry sector recorded a growth rate of 4.32 per cent and energy demand increased by 2.30 per cent (commercial energy grew by 5.31 per cent). It is estimated that during FFYP for the average sectoral growth rate of 9 per cent, overall energy consumption is projected to rise by 4.63 per cent and commercial energy 8.17 per cent. The composition of different type of fuels in 1990 was as follows: biomass fuels 69.6%, commercial fuels 30.4% (natural gas 10.5%, petroleum fuels 5.3%, coal 7.1%, electricity 7.5%). It is estimated that the composition of different types of fuels in 1995 will be as follows: biomass fuels 64.2%, commercial fuels 35.8% (natural gas 13.3%, petroleum fuels 5.6%, coal 7.5% electricity 9.3%). It indicates that increased use of commercial fuels will be supplied by natural gas and electricity. It may be noted that in agro-

processing industries available by-products (e.g. husk in rice mill, bagasse in sugar mill) are the cheaper source of fuel. As a result biomass fuels will continue to contribute a substantial portion (around 40-50%) of total energy consumed in industries. Energy conservation in industries should be given due consideration to adjust a portion of the increase in energy demand due to industrial growth.

*Commercial Sector (Hotels, Restaurants; Shops etc.)*

Comparatively small proportion (1.3 per cent) of total energy is consumed in commercial sector. It is estimated that the energy consumption will grow at the rate 5.46 per cent (commercial energy 12 per cent). The composition of energy resources in 1990 was as follows: biomass fuels 20.2%, natural gas 34.8%, coal 4.5%, electricity 40.4%. Estimated composition of energy resources in 1995 is reported as follows: biomass fuels 18.0%, natural gas 25.3%, coal 13.4%, electricity 43.3%.

*Transport Sector*

Various types of fuel used in transport sector are; diesel, petrol, fuel oil, jet fuel. During TFYP the growth of transport sector was 5.8 per cent and the annual energy consumption growth was 2.78 per cent. It is assumed that future additional transportation needs will be satisfied mainly by road transport and in lesser ways by water transport. Average growth rate of commercial fuel projected during FFYP is 12.3 per cent. In 1990, 14.9 per cent of total commercial energy was consumed in transport sector and it will be 14.1 per cent in 1995. The consumption of different fuels during FFYP is estimated as follows: diesel 73%, petrol 12.5%, fuel oil 1%, jet fuel 13.3%.

It may be noted that water transport is much less energy intensive than road transport. Bangladesh being a riverine country, development of reliable water transport system will help in reducing the energy consumption in transport sector.

*Agriculture Sector*

In agriculture sector commercial energy is consumed directly for irrigation (diesel, electricity) and for mobile power (diesel). Energy consumed for fertilizer production (shown as non-energy use of natural gas in Table 1 and Table 2) is considered as indirect energy input in agriculture. In 1990, 6.5 per cent and 40.0 per cent total commercial energy were consumed directly and indirectly in agriculture sector (see Table 1). Projected share of commercial energy in agriculture in 1995 is estimated as follows: direct 7.1% and indirect 33.4% (see Table 2).

#### ENERGY SECTOR DEVELOPMENT PROGRAMME

Bangladesh's small share of total primary energy (0.4 per cent in 1990) and total commercial energy in primary form (1.2 per cent in 1990) is supplied by hydropower and there is limited potential for further development of hydropower (37 per cent of total potential of 1500 GWh) in the country. A small part of the total final energy (2.8 per cent in 1990) and to commercial energy in final form (6.7 per cent in 1990) is consumed as electricity. Only 17 per cent of total electricity consumed in final form is supplied by hydropower. It means that 83 per cent of total electricity consumed in 1990 was secondary form of energy produced by using primary sources of energy (natural gas and petroleum fuel). Therefore, it is not logical to follow the existing practice of presenting the different sub-sectors in the following order: (a) Power; (b) Oil, Gas and Natural Resources (OGNR) (c) Rural and Renewable Energy. It tends to give an impression that the development of power sector is the most important issue to consider for the overall development of energy resources of the country and continue to receive priority attention in terms of investment. In order to organise the energy planning process in more logical order it is proposed that the different energy sub-sectors are presented in the final planning document in the following sequence: (a) Oil, Gas and Natural Resources (development of primary energy sources); (b) Power (development of secondary form of energy); (c) Rural and Renewable Energy.

Observations on the major objectives and projects proposed to be undertaken during FFYP under different sub-sectors (OGNR, Power, Rural and Renewable) are presented below.

#### OIL, GAS AND NATURAL RESOURCES (OGNR) SECTOR

##### *Implementation of Energy Conservation Programmes*

It is reported that in Bangladesh there is good potential to conserve energy in the following end use sector; industrial sector 15-20 per cent, transport 25 per cent, gas consumption in domestic sector 25 per cent, kerosene consumption in domestic cooking 20 per cent, fuel wood consumption in domestic cooking 40 per cent. It is proposed to conserve the energy resources through efficient utilization in power plants, mills and factories and in transport sector (7.14).

It is further reported that the Government in co-operation with the banking sector and donor agencies has set up Energy Conservations Fund to be utilised for carrying out conservation measures through training and technical assistance in implementation of different schemes. In future

government may fix targets for achieving efficiency standards on a time bound basis and may provide incentives for unit which met these standards (7.14).

At present an amount of US\$ 11.4 million is available for the Industrial Energy Efficiency Project under IDA credit 1942-BD to be implemented for industrial and power sector projects only. The terms and conditions of loan of the Industrial Energy Efficiency Project is not attractive to the would be beneficiaries (both private and public sector industrial units and public sector power generation units). Since 1988, so far no energy conservation scheme has been financed under the project. Energy Monitoring Unit (EMU) under the Ministry of Energy and Agrani Bank are responsible for technical and financial evaluation of loan proposals.

So far no programme has been undertaken for energy conservation in transport sector, commercial energy conservation in domestic sector (conservation of gas, and kerosene). There is no fund available to create public awareness and to give training for energy conservation. There is no provision to give incentives for achieving the targets of energy conservation. In response to the Middle East crisis priority attention should be given to implement different energy conservation programmes and measures mentioned above. For developing meaningful programmes on energy conservation on energy conservation there is a need to give permanent institutional status to Energy Monitoring Unit (at present it is passing through an uncertain status) and strengthening its capabilities.

To ensure the supply of increased quantum of commercial energy mostly from indigenous resources: Because of heavy capital investment required to expand the natural gas pipe line it is difficult to increase its consumption rapidly. Industries located near the gas pipe line should be encouraged to use the available facilities.

#### *Increasing use of Natural Gas*

It has been stressed that necessary measures will be undertaken to reduce the present gap between production and consumption of natural gas. Then what is the justification to restrict the use of natural gas for brick burning. This particular policy in one hand increasing the foreign currency expenditure due to import of coal on the other hand keeping the natural gas system underutilised. In the present state of foreign currency shortage due to Middle East crisis the Government should allow the use of natural gas in brick kilns from the next brick burning season starting from November.

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### *Increasing Use of Natural Gas Condensate and LPG*

To contain the import of oil it is proposed to maximize the use of Natural Gas condensate Liquid and Liquefied Petroleum Gas. Necessary projects have been undertaken to achieve the objective. To ease biomass fuel problem and to support industrial activities the use of LPG in areas having no gas pipe network should be given priority (at present 75 per cent of LPG is used in Chittagong).

### *Acceleration of Exploration Activities*

Number of projects have been considered under Geological Survey of Bangladesh (GSB) and Bangladesh Oil, Gas and Mineral Corporation with a view to accelerate exploration of hydrocarbons and other minerals. It is mentioned that emphasis will be given to attract the patrol of multinational companies on production sharing contract. However, nothing has been mentioned about the progress of exploration and appraisal of oil field at Sylhet region undertaken by a private company.

### *Balanced Development of Gas Sectors*

Number of projects have been considered under BOGMC for the balanced development of exploration wells, production wells, transmission and distribution lines of natural gas.

### *Development of Local Coal and Peat*

With a view to contain the import of energy resources and for balanced regional development it has been proposed to undertake Coal Development Project so that coal may be made available by the plan period. Besides, some action will be undertaken to promote development of peat of greater Khulna and Faridpur districts under private sector. It may be mentioned that both coal and peat extraction projects are sensitive to cause environmental impacts. It would not be appropriate to involve private sector in coal and peat extraction projects.

### *Development of Trained Manpower*

It is proposed to emphasize the development of appropriate manpower. Project has been undertaken to strengthen Bangladesh Petroleum Ministry. It may be noted that Bangladesh is going to initiate coal peat and oil development projects in the near future. BPI may be able to care of manpower development for petroleum sub-sector. Manpower development programme should be undertaken on urgent basis for the development of coal and peat.

### *Environmental Impact*

It is proposed to protect the environment and ecological balance. But nothing has been mentioned to achieve this objective.

In total Tk. 19,000 million has been allocated for the implementation of different projects proposed under OGNR sector. In response to the Middle East crisis, there is an urgent need to reassess the projects proposed under OGNR sector and decide their priorities.

#### POWER SECTOR

##### *Reduce Dependence on Oil*

One of the important issues for consideration has been to reduce the dependence on imported fuel for power generation. It is reported that in FY 1989 the share of petroleum in electricity generation was 8.2% and the share of natural gas was 78.9%. It was expected that in FY 1990 the share of petroleum would come down to 5% and the share of natural gas would go up to 85%. It is not clear how the above analysis of primary fuel use was done. It may be observed from table 1 that in 1990 the amount of primary fuel used to generate 24.4 PJ (thermal power) electricity was 78.1 PJ; in which the contributions of natural gas and petroleum fuels were estimated as 88.7% and 11.3% respectively.

The contributions of natural gas and petroleum fuels in thermal power generation in 1995 are estimated (Table 2) as 91% and 9% respectively. Proposed strategy for imported fuel substitution is quite satisfactory.

##### *To ensure Maximum Utilisation of Capacity Already Built in the Power System and Raising the Operational Efficiency*

Vigorous load management policy will be followed to achieve the objective. The present policy of restricting the use of electricity after 8 PM has given positive result and should be continued.

##### *Balanced Development of Different Sub-sectors*

Different projects have been proposed to further balance the system by necessary extension of the transmission and distribution networks and rehabilitation and augmentation of grid sub-station capacity.

Different projects have been proposed under REB to augment the power supply in the rural areas to boost up the rural economy.

##### *To Ensure Least Cost Generation Through Optimization of Energy Mix*

It is proposed to increase the generation capacity by 992 MW. A 300 MW coal based power station will be taken and the actual work of the Ruppur Nuclear Power Plant is expected to start during the plan period (an allocation of TK. 11250 million has been proposed in the Plan). Participation of private sector in power generation on BOT (Build Operate and Transfer) principle will be encouraged. It is not clear whether BOT

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principle will be followed for any new power plant or for the Ruppur Nuclear Power Plant only. It may be mentioned that the installation of Coal Based Power Plant, Nuclear Power Plant and BOT principle are all new in Bangladesh.

It has been proposed to pay attention for the development of trained manpower.

Nothing has been mentioned about the importance of Research and Development. Environmental impacts of power sector has also not been mentioned in the sectoral development programme.

The physical programme for the Fourth Five Year Plan aimed at achieving additional net generation capability of 992 MW, transmission line of 1183 km, distribution line under PDB 2967 km, distribution line under REB 47, 888 km. The total costs of projects under three implementing agencies have been estimated as Tk. 64,230 million (Bangladesh Power Development Board: Tk. 42,430.0 million + Rural Electrification Board Tk. 10,550.0 million + Bangladesh Atomic Energy Commission Tk. 11250.0 million). The idea of Private Sector participation in power generation should be encouraged with a view to reduce the pressure on public sector investment. Saved public sector resources should be reallocated for the development of indigenous primary energy resources (e.g. coal, peat, oil natural gas).

### *Rural and Renewable Energy*

In Bangladesh, majority of the people live in rural areas. Therefore, special attention should be given to the planning and development of energy resources to meet the energy need of the rural population. On the other hand renewable sources of energy play a very important role in supplying the major portion of the total energy resources and are available from local sources. No separate analyses have been made to indicate the share of Rural Energy and Renewable Energy Resources in the demand and supply of total energy.

It is mentioned that both commercial and biomass fuels are consumed in rural areas. It is assumed that the supply of commercial fuels (e.g. kerosene, diesel) will be considered under OGNR sub-sector, supply of electricity will be considered by Rural Electrification Board under Power Sub-sector, supply of biomass fuels will be considered under Agriculture Sector. Therefore, diffusion of Renewable Energy Technologies will be considered under R&RE sub-sector (Para 7.98). Observations on five stated objectives of R&RE sub-sector are presented as follows:

*Supply of Appropriate Type of Energy will be Assured*

The first objective of R&RE sub-sector has been staged as to provide assured supply of appropriate type of energy to meet the short and long term needs of the people of selected areas of the country (para 7.111) But it has been mentioned earlier (Para 7.98) that the activities of R&RE sub-sector will be limited to the diffusion of Renewable Energy Technologies (RET). It is beyond the scope of R&RE sub-sector to provide assured supply of appropriate type of energy by diffusion of RET only. In the absence of proper assessment of rural energy needs an assurance to meet the demand is without any basis.

Diffusion of Proven Renewable Energy Technologies will be Intensified to reduce pressure on biomass fuels. It is proposed to undertake a biomass fuels conservation project for the diffusion of 1.62 million cook stoves which will be able to cover only 10% of total rural households.

*Organise Training Programme for the Successful Implementation of Development Projects*

It has been stated to train up rural youth and interested entrepreneurs particularly women on the construction, operation and maintenance of various new and renewable energy technologies for successful implementation of development projects. This statement may be considered as an strategy to achieve the objective for successful diffusion of RET but not an objective in itself.

*Provide Energy for Agriculture and Small Industries*

It has been stated to provide energy to run small-scale industries, boost agricultural production, and generate employment opportunities in rural areas, particularly as part of decentralised participatory planning. No project has been proposed under R&RE sub-sector to achieve this objective.

It is proposed to improve the quality of rural life and reduce environmental degradation and pollution. Implementation of biomass fuel conservation project may benefit the respective users in improving the quality of life.

*Rural and Renewable Energy Sub-sector Projects*

In total Tk. 270.6 million has been allocated for implementation of the following ten projects: (1) Dissemination of 1.6 million cooking stoves (Tk. 81.0 million) (2) Dissemination of 30,000 Insulated box (Tk. 10.0 million) ; (3) Establishment of 5000 Biogas Plants (Tk. 42.0 million) (4) Establishment of 2 briquetting Plants (Tk. 20.0 million) (5) Distribution of 5000 Solar Cookers and (6) Distribution of 4000 Solar Box (Tk. 8 million)

- (7) Establishment of 25 Nos. (50 Kw) Solar Photovoltaic Centres (Tk. 50 million) (8) Establishment of Wind Mill 3 Nos. (Tk. 10 million); (9) Establishment of Micro Hydropower 1 (Tk. 30 million) ; (10) Strengthening of EME Wing . (Tk. 19.6 million) .

Among the different projects proposed to be undertaken during FFYP, except the dissemination of 1.6 million cook stoves, the contribution of other projects in meeting the energy demand would be very small. There is a need to assess the actual field level performance of different technologies distributed upto TFYP with a view to decide future strategies for their diffusion. As for example, it is reported that 417 biogas plants have been installed by different organisations upto June 1990. But out of these plants at least 300 units are not in operation (may not be in existence). Out of five solar PV centres established upto June 1990, how many of them are in satisfactory operation?

As a part of the strategies it has been proposed that appropriate Government NGOs will be selected for the extension of different technologies mentioned in the project list. Private entrepreneurs have more important role to play in diffusion of renewable technologies than Government, semi-Government and NGOs. The role of the government should be to encourage the participation of Private entrepreneurs through different incentive packages. As for example a local entrepreneur has started test marketing of Solar Photovoltaic panels in Bangladesh. But due to local taxes they are finding it difficult to market the gazette. Considering the Middle East crisis Government should have wave all taxes on the import of renewable energy technologies. Local manufactures of these technologies should be given subsidies at the initial stage.

As a part of strategies it has been proposed to use flat plate collectors in hospitals, hotels, motels and different industries to meet hot water demand (Para 7.113 f). Diffusion (marketing) of Solar Water Heater should be included in the project list and implemented under private sector.

It has been mentioned that in order to discourage rural people from using fuel wood for domestic purpose, kerosene, LPG will be made available at reasonable price. It has been discussed in section 2.1.7 that it would require to import 3.9 million tonnes of kerosene with a view to substitute the present use of biomass fuels (499 PJ), in addition to the existing import of 1.9 million tonnes petroleum fuels per year. However, it may be mentioned that implementation of rational pricing policies of all the commercial fuels (e.g. coal, gas, oil, electricity etc.) has an important rôle to play for sustainable development of total energy resources.

#### REFERENCE

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## AID INDUCED HUMAN RESOURCE DEVELOPMENT : WITH SPECIAL REFERENCE TO BANGLADESH FOURTH PLAN.

MUZAFFER AHMAD\*

### INTRODUCTION

Bangladesh education sector has become increasingly dependent on so called technical assistance grants. The fourth plan is no exception to it. This opportunity has to be utilized with proper conceptualisation of programmes and policies which promote intellectual self-reliance as education sector performs the research and development function directly or indirectly for all other sectors of the economy.

I am putting forward some views from the third world perspective on the role of the developed economy institutions of higher education in the context of development in the decade of the 90s when we prepare ourselves to bid farewell to the twentieth century, hopefully in a better shape socially, politically, economically from the global and in the narrow national/ local viewpoint. At the outset I must put on record limitations on my part to do so. First, my experience of the third-world is limited at best to a region; while third world is a vast and non-homogenous entity which is continuously used in place of noncognitive word others, though initially it was used by Franz Fanon to connote distance, despair and anger. Second, I have limited experience of the US education system-some at the tip of it as a graduate student for five years in one of the best universities of the country and as a member of faculty for a limited period but essentially remained non-integrated to the system which alone enable to get an inner view. Third, development as to its meaning, experience and strategy is again an area where much disagreement remains. Hence, this value laden term may and does mean different things to different people. My view grew out of my direct and indirect but accumulated experience.

The paper is organized as follows. In the section following introductory remarks, I have tried to deliberate on the concept of development and draw attention to the inadequacy of the concept and absence of meaningful

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\* Professor, Institute of Business Administration, University of Dhaka.

effort on the part of the third world to do so. In the next section I have attempted to discuss the nature of the third world as a concept and how difficult it is to treat it as a concept. The following section deals with the role of the University and goes on to discuss the role of the US universities vis-a-vis the developing world. Fourth section presents the case study of few examples of educational aid to India which is considered to be success stories in a relative sense. The final section deals with the realities of the third world education system which remains a periphery and because of the dependent nature, despite high visibility of aided institutions, their contribution to national development and development of knowledge is still much limited compared to potential.

#### WHAT DOES DEVELOPMENT MEANS

Development fortunately is no longer interpreted in the narrow economic sense. Though a complete agreement on what development or more precisely non-development means is far from there, even then it means a better state of being approached in a graduated and systematic manner. It may indeed be said that recent involvement of development process and experience of constraints to development, however conceived, have made the concept more wide to include non-economic dimensions or to extend economics to sectors which do not fall strictly within that fold or do not easily lend itself to its treatment. This man-centred idealisation and search for social and institutional roots of development has made the concept more agreeable to the university community as a whole in its ideal form than it was in the past and it has crept beyond the limits of economics but also that of social sciences. This thrust in the understanding of development in the broader perspective is a development of significant importance and credit for this goes not merely to the practitioners of development programmes or projects but also to the academics in the universities who got involved in the debate and contributed substantially in building holistic conceptualisation for integrating non-economic and non-quantifiable factors into the development process and in conceptualising development in the broadest possible terms. Even though development economics seems to have faded into oblivion or are fading away with re-ascertain of technocratic classical economics, even though area studies are no longer in fashion, social sciences and development studies as an interdisciplinary and integrated field of studies never got popularised or needed support. The involvement of the US academia in the development programmes and projects and through that in the process, has increased overtime and gained a much wider affiliation than ever before as a result of

expanding national, bilateral and multilateral development efforts and recent emphasis on human resource development.

Development today is no longer conceived as the business of economists alone, as development is also analysed and examined according to social, cultural, educational and political criteria. It is the interdependence of these factors on economic factors and vice-versa which, though forgotten in partial or short sighted approach is a fact that surfaced from analytical history of development process of many societies. There was always a group of academics, particularly non-fangled model-bugs, who emphasised the need to look at the society as a whole and in the broader context than what can be caught in the simplified set of quantitative relations.

You will notice, I have not attempted to define development as such. I have merely stated that development need be understood and discussed in the broadest possible terms. There is indeed a school of social philosophers who doubt whether development is scientifically definable and those who carry the legacy of platonic and protagonian ideas of the basic morality of change and in that sense development is intrinsically worthless as superstratum only changes not the basic strata. However, Heroclitos not only accepted change as reality but argued that changes are patterned after well defined general laws, which are dialectical in nature. Despite these philosophical arguments, from the ancient Greek philosophers we get no workable idea of the account for social change and development. However, it should be emphasised that development has become a manifested concern only when dramatic changes in material culture with burgeoning population, proliferation of invention and colonisation became realisable, possible and considered desirable resulting in new forms of social production, ownership and consumption in the wake of changing circumstances caused by the industrial revolution. The new social forces of production and economic reorganisation emerged manifesting them in such developmental responses as Protestantism, Enlightenment, Liberation and Socialism. These were all assaults against traditionalism and in favour of institutionalisation of development and change. This to my limited understanding is what, for example, Webers' studies on interrelationship between capitalist economy and protestant ethos show. The question that has to be pondered over is whether the decolonisation process or the development strategy backed by the intellect of the West has been able to create such conditions of social change and have the academics advocated and practised an approach that

keeps social development a dependent variable consequent to the aid induced economic activities which are determined by dominant national interest and the lobby of the donor countries? I am afraid the concept of human development which came as a consequence of enlightenment did not permeate into the concept of aid for development as these were still built around virtues of hard work, patient effort and slow results. This is realised when one sees the developmental studies and evaluations which forget the value and need for transition from autocracy (i. e. military rule) to democracy based on universal suffrage, and accountability as per written law defining rights and responsibilities or from practice of law based on power to equality of law, from concentration of wealth to rational distribution of production resources, from illiteracy to universal education, from group domination to national consensus etc. This is not to say, the academia in the US or elsewhere are not aware of this but when they work as direct agents of development agencies, they seem to be liberated from such concepts, barring few exceptions and recent realisations.

The reason may lie in the fact that while enlightenment did produce a framework for the understanding of development, it failed to evolve a causal basis thus leaving social sciences in the ivory tower of idealism which produced arbitrary form of utopianism. The social sciences as a whole, despite counter currents, may not still be effectively free from this legacy. This to me appears to be the basic reason for non-emergence and growth of appropriate development studies in the academia in the US and elsewhere. Thus to date, as per this tradition, development of men was expected to result in and result from final fusion of reason and self-interest, which is the best manifestation of hedonistic utopianism. As a result of this, development approaches have promoted self-interest but it has so far not fused effectively even at a minimum level of conditionalities based on reason to create conditions of rapid development for human race as a whole. Even the historical theory of development which sees reason as one that connects one great moment defined as culmination of painstaking process providing meaning to human existence and experience with another, did not effectively negate the void and it resulted in the culmination of materialistic theory of social development.

It was left to Marx who viewed development as a social and a secular question and who insisted on a specific interest laden and also value-laden dimension of the problem. He sought to enumerate also principles of development in terms of the progress of socio-economic production and found the relegation of land and land-owning class and rise of capital and

capital owning class as a stage of development in the process of social production. He conceived that next stage of development would be the rise of labour and its class affiliate. This carried the implication of replacement of state power by social authority.

Marx thus built the first system of social science in terms of development by relating it to social interest groups and development conceived as a class task. He concluded that only after the fall of bourgeois society and bourgeois consciousness could there be national development and it would not come harmoniously. The US political ideology being actively antithetical to it, the US academics generally ignored this approach, even attempted to provide alternate approach. However, in recent years methodical and critical studies of Marxism in the US have increased and contributions of neo-Marxists in the US is quite visible. But they still remain outside the mainstream of development debate. Recent developments in the Second world seem to have stalled the neo-Marxian search for a theory of development and under-development. But capitalism that Marx knew has changed in many ways and socialism of Lenin and Stalin has also been amended by forces of history.

I should in all fairness add that no towering intellectual effort is noticed in the third world to conceptualise development or development process by themselves. This is so, largely because older civilisations and older seats of learning were destroyed or made dysfunctional in the colonisation process and also because the modern intellect in these countries is a product of the first world, even when it is Marxist or of the second world. In addition there has been a denudation of the capable intellect through the process of brain drain or through the corruption that so called consultancy services has brought at the doorstep of the intellectuals. Being greatly imbibed by the western intellectual hegemony, they are capable of extending it horizontally and at times vertically but they have lost the capability to look at the phenomenon from within through a process of experimentation and logic in search of meaning of the past, present and future existence as a group of individuals searching for a better destiny.

#### WHAT DOES THIRD WORLD STAND FOR

Third world, in contrast to developed capitalist first world and socialist second world, is a respectable term in place of others outside. But what is the third world? We know that it is a non homogenous entity. We also know that almost all of them were, either directly or indirectly, subjected to mild or severe colonial rule for long or short periods. We also know that this colonial

rule has been the generally exploitative, repressive and devious in nature; it ate into the natural vitality of the old nations; and it did not create any newer source of vitality and left them in a state of man-made underdevelopment fighting against itself without appropriate institutional structure for growth and integration. But the social, cultural, political, economic, spiritual, educational and legal impact of direct colonisation and decolonisation still awaits a full and formal scientific investigation by the academics of the third world as well as those of the first and the second. The studies so far available are partial, often not substantive and biased. This impedes the understanding of the third world itself. The academics of the west including those of the US have fared no better. As a consequence the diverse nature of underdevelopment is not understood in its entirety and in intensity as well as extensity. This understanding is vital for the third world. We further know that for these countries there is a long way ahead to progress but not much time to cross the distance, while the impediments created by national or group interests of first and second world through the global network of institutions and duopoly of intellectual property, military might, political acumen, in conjunction with economic power and technological innovations, collectively create an environment of forced deprivation for these countries as well as dependence-economic, political, military, on the one hand and psychological and moral on the other.

However, the divergence amongst the third world countries and contradiction as well as non-integration within these countries are important to remember. This vast conglomerate has such tiny countries as Hongkong (1000 sq. km), Singapore (1000 sq. km), Mauritius (2000 sq. km.), Trinidad & Tobago (5000 sq. km.), Lebanon (10,000 sq. km.) as well as such giants as China (9,561,000 sq. km.), Brazil (8,512,000 sq. km.), India (3,788,000 sq. km.), Argentina (2,757,000 sq. km.), Sudan (2,507,000 sq. km.), Algeria (2,382,000 sq. km.), Zaire (2,345,000 sq. km.) and Saudi Arabia (2,150,000 sq. km.). Such variation is also noticeable in terms of population. There are such small units as Mauritius (1.1 m), Botswana (1.2 m), Bhutan (1.4 m), UAE (1.5 m), Mauritania and Kuwait (1.2 m each) and such populated countries as China (1088.4 m), India (815.6 m), Indonesia (174.8 m), Brazil (144.4 m) and Bangladesh (112.0 m). In terms of per capita income there are those with the lowest such as Ethiopia (120 US\$), Bangladesh (180 US\$) and some with the highest per capita income such as UAE (15,770 US\$) and Kuwait (10,400 US\$).

There are countries with high average annual growth rate in real GNP

such as Republic of Korea (6.8%) or with such low average rate as Bangladesh (0.4%) or even negative rate such as in Ghana (-1.6), Niger (-2.3). Some of these countries experienced high growth of manufacturing sector such as Oman (37.9), Indonesia (13.1), Yemen (12.8), China (11.0), Mauritius (11.4), Pakistan (8.1), Turkey (7.9), Republic of Korea (13.5), and some others very dismal growth such as Paraguay (1.3), Zambia (2.5), Jamaica (1.6), Peru (1.6), Papua New Guinea (1.9), Zaire (1.4) and Bangladesh (2.4). Besides there are many others which had negative growth. Similar is the diversity in growth in agriculture viz. Kuwait (23.6), Saudi Arabia (15.2), Morocco (6.6), Turkey (6.7), China (6.8), and Algeria (5.6) experienced high growth rates, while Uruguay (0.3), Syria (0.5), Nigeria (1.0), Jamaica (0.9), Philippines (1.8), Liberia (1.2), Mauritania (1.5), Bangladesh (2.1) amongst others experienced low growth. There were many that had negative growth rates in this sector.

There are economies which are primarily agricultural getting more than 50% of GDP from that sector such as Tanzania (66%), Somalia (65), Burundi (56), Nepal (56), Mali (50) amongst others. There are others where industry has come into predominance such as UAE (58%), Kuwait (51), Gabon (51), Botswana (55), Zimbabwe (43), China (46), Brazil (43) amongst others. These include some oil-rich countries. A third category seem to have a major service sector viz. Hongkong (70), Saudi Arabia (50), Singapore (61), Trinidad & Tobago (64), Uruguay (60), and Jordan (65), amongst others. These facts establish the diversity in nature and structure of the economies in the third world and thus the diverse need for development of human resources to meet the present need and the need for structural transition.

The third world generally demonstrates the prevalence of mixed economy with both private and public sector working in harmony or in conflict situation. Some have accepted the ideology or goal of socialism such as China, India, Zimbabwe, Cuba, but there exists variation in the nature and performance of socialised sector. Others have adopted public sector as a vehicle for promoting basic industries as well as private entrepreneurship. Many practice planning, varied in approach, content and direction in its comprehensiveness, in its flexibility, in its realism and so on. The capacity and capability to administer regulation, direction and enterprises also vary widely amongst these countries. The search for a new economic alternatives by many of the third world countries, for example in Libya, Yugoslavia, Tanzania, to mention a few, have not matured into a viable and real trend. The limitations lie not in their desire but in their inability to

produce visionary social philosophers with great sense of compulsions of historic realities and realism to enthuse people to yield a reasonable results quickly. The limitations also come from the intricate ways of international linkages, lures as well as pressure in and around such efforts. Third world thus in effect remains a mixture of affected adaptations of capitalist and socialist systems, often not providing the best of the both worlds.

The third world countries also vary widely in terms of social indicators of levels of development. For example primary school enrolment is low for countries like Bhutan (26% of age group), Niger (29), Guinea (30), Ethiopia (37), and very high for other countries viz. China (132), Sri Lanka (106), Zambia (97), Indonesia (118), Philippines (106), Zimbabwe (136), Peru (122), Malaysia (103) Argentina (110), Korea (101), Iran (114), etc. Female participation rate is lower but shows similar pattern, the difference between male and female being lower in countries which have attained very high rates of enrolment. The importance of education, particularly primary education in development is an established fact. Participation of the secondary level is very low for many third world countries e. g.

Tanzania (4), Bhutan (4), Mali (6), Rwanda (6), Saudi Arabia (4), Papua New Guinea (12), Mauritania (16), Bangladesh (18), etc. At the other end of the scale are another set of countries viz. Republic of Korea (88), Kuwait (82), Chile (70), Trinidad & Tobago (82), Sri Lanka (62), Philippines (68), Peru (65), amongst some others. The discrepancy between male and female participation is much wider at the lower end while it is much reduced or eliminated at the other end of the scale. It is the graduates from the secondary school system who are potential entrants to institutions of higher education at home and abroad.

At the higher education level participation is nil or nonexistent for many countries in the third world e.g. Bhutan. The participation is in general low e.g. 3% for most low income economies, even in some of the middle income economies. It is high in such countries as Republic of Korea (36), Argentina (39), Venezuela (27), Uruguay (42), Ecuador (30), and Philippines (38). This is an indicator of the recognition of the value of higher education and accessibility to it. This is the potential critical mass for institution to institution cooperation with foreign and other overseas educational institutions, particularly at the higher level.

The expenditure on education as a percentage of GNP also shows wide variation. Some countries spend very little viz Chad (2.0%), Nigeria (2.0%), Bangladesh (2.2%), Uganda (2.2%), Haiti (1.2%), Pakistan (2.2%). There are spenders like Saudi Arabia (10.6%), Libya (10.7%), Zimbabwe (7.9%),

Botsowana (9.1%) and Malaysia (7.9%).

As a percentage of government expenditure, Kenya (21.5), Ghana (25.7), Zimbabwe (22.0), Thailand (20.0) Korea (19.0) etc have attached high priority to education while very little is spent by Nigeria (4.5), India (2.9), Pakistan (2.6), Brazil (4.8) Hungary (2.1) Australia (2.2), USA (1.7) etc. Bangladesh government expenditure is around (15%) which in a poverty ridden country is not enough and much of it is basically wages, salaries and subvention while very little is available for development on educational facilities for quality improvement.

The nature, role and extent of mass communication also varies amongst the third world countries conditioned by literacy, urbanization and participation as well as in respect of control of and on the media. At the lower end of scale are countries like Nepal, Afghanistan, Sudan, Niger, and at the higher end there are countries like Republic of Korea, Trinidad & Tobago, China, Argentina and Turkey etc.

The character of basic social organisation, particularly the traditional kinship system, also influence social development process. Countries in Africa in general exhibit strong tribal allegiance and these are not absent in some parts of Asia; whereas in Latin American the dominant form of social organization is the immediate family group, while somewhat extended family system predominates in most Asian countries. The importance of the role of the middle class as a driving force in growth and change is well documented. Most of the countries in Africa do not seem to have a solid indigenous middle class. Countries with significant middle class seem to be present in most Latin America and Far Eastern, and some south Asian countries. Again some countries in Latin American Far East exhibit much more social mobility than those in Central America, Africa or South Asia.

The third world countries also differ greatly according to political indicator. Many countries have highly authoritarian government while others have well established nation-wide democratic institution. Even amongst countries with authoritarian rule some are repressive while others are not, some are characterised by centralised decision-making while others have allowed administrative decentralisation, and some have effective government control while in others government control is basically ineffective. Amongst the democratic countries the degree of popular participation, nature of political party system and practice of democratic norms differ widely. In other words, there are countries where political

opposition can not be freely and openly organized and there are others where this has been accepted as a necessary part of the process. Again the degree of competitiveness amongst the major political parties and choice of effective political alternatives may or may not be present. In some countries political parties have significant class and/or doctrinal orientation, while in others it demonstrates highly personalistic, regional, ethnic, linguistic or such other limiting ties. Over and above all, the political stability of the third world countries, not in the sense of continuity but in the sense of the presence of a national consensus about social, political, economic values and norms, varied significantly as is the case with commitment of leadership to economic development and welfare of the common men.

This long discourse on the third world was intended to explode the myth of one or a few homogenous entity but also to emphasize that the intrinsic ability of these countries to harness its own resources to respond to the extrinsic stimuli for educational, cultural, scientific, technological, and social development is indeed varied and depends on a large number of factors that are rarely considered expressly in designing the stimulus and aid for change. Without conscious cultivation of intrinsic stimuli for human resource development, such extrinsic stimuli very often yield very little result. In Bangladesh the intrinsic stimuli under non legitimate governance which has widened rural-urban gap, rich-poor gap and have promoted divisive educational and cultural trends and down played scientific and technology oriented aptitude development, the aid induced stimuli at various levels have so far yielded very little result.

#### THE ROLE OF A UNIVERSITY

What is the University? It cannot and should no longer mean a set of buildings where to a number of students and to whom are communicated by various means and methods a set of knowledge by a group of scholars who have studied the matter for long and researched into and about it for quite some time. The university is today more than it was in yester-years, it is a social organization designated to be responsive to the needs of its clients and environments and take into consideration the views of its patrons for transmission, creation and growth of knowledge and of agents embodied with such knowledge. The University today presupposes a society, polity, an economy, and it is conditioned by the past, present and expected future state of that a society, a polity and an economy. Hence the universities of the first and second world, despite great diversity in form, size, standard, wealth, organization, etc. demonstrate a kind of unity that

can be called "western;" it is true of the American, British, German, Russian and French Universities. It should never be forgotten that these universities are product of, social production system of the country concerned and it responds primarily to that system and whatever manifestation of internationalism may be there, those are merely a necessary extension of that system. These universities have very little obligation to the system beyond the frontiers except to the extent it serves the national interest of social reproduction. Hence the output goals (graduates and new knowledge), quality goals (for differentiation) and system goals (growth, change, experimentation, etc) of the university system, as it should be, is oriented towards its immediate national needs and interests in the context of narrowly defined system and also in the context of international interdependence.

The change in the conceptualisation of university is very vivid from the literature on university education. Some examples are reproduced below:

1. "A university is a corporation or society which devotes itself to a search after knowledge for the sake of its intrinsic value". (B. Truescot, Readbrick University, Faber, 1943, p45).
2. "The university ideal, which derives from the corporation of masters and scholars of the middle ages, is of a self-governing community concerned with advancing and disseminating knowledge". (A.E. Sloman, *The Making of a University*, BBC, 1964, p9)
3. "There would be widespread agreement with the view that the fundamental characteristic is the combination of research with teaching" (G.L. Brook, *The Modern University*, Deutsch, 1965, P.11)
4. "I shall treat a university as though it had two major sub-systems-one for the discovery of knowledge-research; the other for the dissemination of knowledge-teaching." (Q.Rice, *The modern University*, Tavistock, 1970, p24)
5. "The purpose of the university is to benefit the community which created and maintains it and mankind in general, through the advancement and dissemination of knowledge" (J. Searse, *The Campus Year*, Penguin, 1972 p170).
6. The objectives of the universities are-
  - (a) to provide instruction in skill to enable its graduates to participate in the national production effort effectively through skill-based division of labour;

- (b) to promote mental faculty to produce cultivated personalities;
- (c) to help advancement of learning; and
- (d) to transmit knowledge based common culture which sustains standards of citizenship." (Robbins, Committee on Higher Education in U.K.)

7. "The university has many different functions in the community. First, it is a symbol and repository of civilisation in the sense of belonging to Western culture and being able to support scholarship. Second, a university is a home for research----. A third important function of the university is information storage ...., the fourth is teaching young adults both for a professional training and for providing general education..... The final function of a university is to serve as a means for redistribution of income from the community in general towards its youthful intelligent and scholarly inclined citizens. Harry G. Johnson. The university and the social welfare in Keith A Leendsen (ed), (Efficiency in Universities, Elseveir Scientific Publishing Company, 1974, p21-287).

These changes in views have come about because of the interplay of interest groups which can no longer be said to be students and faculty. One of the very important interest group is the government which no longer support a university merely as a symbol of civilization but sees it as a specific institution contributing the formation of human capital and intellectual property as well as its impact on social mobility, national integration and income redistribution. While universities earlier depended largely on government and community funding in developed societies through foundations and donors have become an important source of revenue. They are not merely moved by motivations of charity, but seem to have their own view as to the direction of development in teaching and research. The business firms have shown interest in universities not merely for recruitment of experts and executives but also for research in its own interest. Thus it can be said that the university, like in the classical age, can no longer determine unilaterally its own means of teaching and research; more and more it responds to the needs of the patrons and clients, in the developed countries. Where does the developing countries feature in this?

In the context of the developing countries, the inducement has come

from educational aid provided through the foreign aid programme as part of the foreign aid policy of the donor government. In other words the universities function as part of the state apparatus in the Marxist sense and in doing so they do not assume any responsibility to meet the expectations or need of the developing countries alone but quite importantly that of the donors; this is unlike the situation in the first and the second world.

Despite deep and generous humanitarianism of the people of the developed world, particularly USA, and at time imaginative initiatives taken by their government, private foundations and voluntary agencies, the developed world has supplied aid on a declining scale over the years and the rationale for aid, except for security, foreign policy reasons and commercial interests, does not find a ready support with the decision makers of those countries. The criterion for allocation of aid seem to be historical association, global importance, security relevance, commitment to democracy and free market and economic performance in the narrow sense of the term. Humanitarian action aimed at relieving immediate difficulties and the very poor remain separate from general aid package. The administration of AID rests with a vast bureaucracy, besides there are innumerable foundations and organizations who work in the field with limited and sharply focused programmes.

The western universities, particularly in USA, in general have responded to this aid climate positively by providing facilities for training to citizens of developing world as part of this aid push, by sending experts and teachers to the developing countries under designated aid programme, by organising research on developing problems both in host country universities and in the field and so on. However, there has been no detailed evaluation of the role of the universities in development assistance, except that such actions have brought budgetary support to the donor country universities, higher income to its faculty, research opportunity for its faculty and students and expanded educational opportunity, mostly abroad, for aided country and chosen few.

There are reportedly 350,000 students from various foreign countries in American colleges and universities today, this is less than 3% of students enrolled in institutions of higher education in USA. Although US enrolls more foreign students than any other developed country, but ranked in terms of percentage of total student body, it is in the second decile. Majority of these foreign students are undergraduates in community colleges which are attracting most of the foreign students in USA.

However, nearly 50% of the graduate students are at the major research universities of the USA. The preferred field of study in order of participation, are engineering, Business, and management, natural and life sciences, social sciences, humanities and agriculture. The share of women students have come close to 40% mark. As to the geographical distribution, a little more than 1/5th comes from middle eastern and other OPEC countries, another one-fifth from Pacific and East Asian countries, nearly one sixth from Latin American countries including Caribbean, about similar number from whole of Africa, one eighth from south Asia and other Asian countries and rest from East and West Europe. Not all of them come under development programmes but many of them have assistance from the universities, foundations and similar other organizations. Development assistance cover no more than 8% of this student body.

The impact of a large body of foreign students have been perceived to be important for (a) contribution to scholarship worldwide and emergence of international centres of excellence; (b) contribution to international understanding through potential influence of study in the host country on people who are likely to play leadership role in their own countries; and (c) contribution to economic relationship because of continued interest in the host and home countries even when they return home.

Besides the students, there has existed faculty exchange programmes, particularly in the USA, at the core of which is the Fulbright programme but foundations have also helped considerably in its growth. Because of America's emphasis on fundamental research, interdisciplinary work, experimental work in social and biological sciences, etc. etc. the US universities are attractive to foreign faculty members for learning to bridge the gap in knowledge, for cooperative research and for experiencing a new outlook on familiar subjects. Such exchanges have promoted growth of linkages between university system or groups of schools; direct exchanges between US universities and those abroad, faculty exchanges around specific projects and department to department or faculty to faculty exchanges on their own initiatives; such exchanges are largely limited to universities in developed countries or those who have been able to create and sustain linkages (e.g. Rep. of Korea, India). Here again, besides dominance by developed European countries in building such linkages with USA, dominance would also be noticed in respect of disciplines as well as institutions that have benefitted most from these exchanges. This inequity have not allowed the spread effect to gather critical momentum in most of the third world countries.

American universities have, since world war II, played an important role as a resource in development assistance to LDC through government and foundation programmes for educational, economic and technological development. Such assistance was often in the nature of unilateral and unidirectional assistance and in some cases it also nurtured a collaborative relationship. It is indeed capable of transferring the know-how of integrating the higher education system with national development efforts if sustained and programmed efforts are articulated in a collaborative relationship with a commitment on both sides and resources made available to do so. In other words, programme related institutional development and research linked to the felt need and problems of the recipient country need be the approach and these should be supported and sustained through a period of maturity instead of randomly distributed assistance for individual development for a short period in such fields or in such a manner which have little relation to the development problems that the country concerned feels as immediate and important. Not many of the development assistance provided through the western universities could claim this orientation or a legacy of lasting success, as the linkage downward throughout the educational system in the aided country was hardly programmed properly.

As an example one can look at the BIFAD programme which has very active university participation and which grew out of concern about hunger and malnutrition in the developing countries. The component of this programme, which supposedly gets 55% of AID's budget, are research, training, extension services and advisory services. How are these functions discharged? First, this programme supports collaborative research in American universities with LDC or international research institutions on agricultural related problems that are of mutual interest to USA and LDC. Second, this programme provides grants to US universities to strengthen their capability in teaching, research and extension work in LDCs. The idea is to build institutional and human resource skills in USA and through them in LDCs. Third, this operation of this programme provides opportunity to land-grant and sea-grant universities in USA an advisory role to AID regarding priorities and projects in LDCs involving research, extension and advisory functions. An evaluation by some US congress members indicated that such research grants have permitted the selected US universities to duplicate the functions of international agricultural research centres and allowed researchers to pursue personal research interests and little benefit has actually accrued to LDCs. AID itself is reportedly suspicious of capacity and validity of US universities contribution to the development

process in LDCs. It is needless to say that the recipients had little to do in designing the programme, the real resource flow into the recipient country was very little and the programme was narrowly focussed inhibiting its externalities and spread effect.

Another area is development of technology and personnel. It has been rightly perceived that LDCs need new technologies, new institutions or institutional capacity, trained personnel for transfer, adaptation and use of science and technology. This requires problem oriented long-term direct and collaborative programme in place of country-oriented formal and complicated programme with shifting focus. This requires major action in LDCs with supportive action in host country institutions in place of the converse. However, much of the training and research in most of the host country universities seem to have sprouted from missionary or monetary motives considering international projects as isolated activity often diffusing energies of the faculty over too broad a terrain and there has occurred in no instance an integration of host country universities overall mission with the objectives of developmental role that it is called upon to play. The mission is still very much inward looking, locally centered and international activities are peripheral to the University system of the donor countries.

This inward looking nature can be understood if one recalls that international and area studies are of recent origin in US universities which carry the legacy of isolationism. However, in the 50s and 60s foundations and the government support led to a major growth in this area. Foreign area and foreign language programmes have dwindled in the 70s and 80s. This seem to be a reflection of the reduced concern of the government and the community in US about the role of universities in preparing personnel for broader interaction with people in other countries particularly LDCs. This reversal in concern also reduced the capacity of US universities to work in collaborative activities by themselves. The same is true about other western universities who seem to treat students from LDCs or programme for LDC country trainees as objects for augmenting resources for its own purpose.

#### CASE STUDY OF AID INDUCED EDUCATIONAL PROGRAMME

It may be helpful to discuss some of the successes in educational aid. The countries that come to mind are Republic of Korea and India amongst others; I shall devote my attention to India as a matter of convenience.

India realised very early that the most important ingredient for national prosperity is technology, creative adoption and development of which is

rooted into the study of sciences and their applications as that would result in better and effective utilisation of human and material resources and ultimately in her ability to provide better material and cultural amenities for the people at large. Accordingly, the government of India decided to foster, promote and sustain by all appropriate means the cultivation of science and scientific research in all aspects—pure, applied and educational in order to ensure adequate supply of research scientists of high quality through education and training of scientific personnel whose creative talents are to be supported as well as augmented in an atmosphere of academic freedom so that dissemination of scientific knowledge for development and discovery or adoption of new technology becomes a reality in the national interest. India did receive foreign aid as a means of harnessing modern science and technology. In order to ensure relevance, continuity, and efficiency as well as to create capacity for further autonomous development through unilateral or collaborative research, India set up a number of institutes of technology, starting with Khargpur with its own means, then Bombay with UNESCO—USSR assistance, Madras with FRG aid, Delhi with US aid and Kanpur with UK assistance.

In all instances teams of Indian experts discussed and settled the details for each institutes with the counterpart institutions in aid-giving country which helped to set-up teaching and research activities as well as trained Indian faculty to function optimally on their own. The foreign assistance facilitated induction of latest technology and created the basis of technological self-reliance for India's economic development. India today is the eighth largest industrial producer and has emerged as an exporter of engineering products to LDCs. It should be recalled, while creating these apex centres of excellence India established 357 industrial training institutes (ITI), 6 central training institutes for training instructors of ITI with assistance from ILO for five and from USAID for one advanced training institutes for craftsman and technician, a foreman training institute at Bangalore and a central staff training and research institute for senior personnel in industry in Calcutta. This vast network was developed in a planned manner and it was possible because of existing, educational infrastructure in India and imagination and vision of future of their leaders. In setting up these training institutes Government of India accorded high priority to foreign technical assistance in training manpower with UK as the prime provider. Alongside India introduced with UNDP-UNESCO assistance a programme for upgradation of curriculum and teaching of science in secondary schools coordinated by a National council of

Educational Research and Training. The programme upgraded the laboratory and workshops in schools, provided expert services for revision of curricula and training of science teachers.

India is an agricultural country and development of agriculture was a priority area. In 1954, an Indo-American team was constituted to recommend ways and means for development of agricultural education. As a result five American Land Grant universities under USAID grant provided expert services to develop five Indian Colleges of Agricultural and Veterinary Sciences and two research institutes, trained Indian scholars in the field and built up library, laboratory and field equipments. In the meantime the number of agricultural colleges increased to 51 and of veterinary colleges to 17. There were demands to set up agricultural universities at Ludhiana, Udaipur, Jabbalpur, Hyderabad, Bangalore, Bhubaneswar in addition to Patanagar and Kalyani. Later eleven more institutions have been set up; of the 19 only 14 had benefited from foreign assistance in the matter of supply of experts, books, equipments and training. USAID had provided much of the needed technical assistance, besides those provided by Rockefeller and Ford Foundations-which was directed in part to intensive agriculture development programme linked to these institutions and establishment of Indian agricultural research institutes. The emphasis of all these programmes was on integration of education with research and exhibition work. In addition India obtained UNDP assistance to develop research capability in soil and water management with collaboration of Wageningen University; Agricultural economics and plant protection capability was developed with the help from USAID. Dairy sciences, poultry breeding and Agricultural engineering were developed with the help from Japan and USA. In all these cases Indo American collaboration through the University system was found very fruitful. Following these success, World Bank provided assistance in the late seventies and US University collaboration was a major component of foreign participation in that case as well.

Another area of fruitful collaboration was in the field of management studies. The trade pattern of merchant adventurers and of family enterprises were changing fast with the growth of partnership firms, managing agency system and public enterprises. The need for a new cadre of professional managers was immediately felt. In 1960, it was estimated that 56% of managerial position in private enterprises were held by school leavers, 28% by college leavers, 2% with diploma level education and 14% with college graduates. Similarly, in technical positions the percentages

were 38, 36, 6, and 27. At that time it was also estimated that manager worker ratio on average was 1:10. Further, the chambers estimated that in the next decades there would be a need of 34,000 new and trained managers. Against this background, two Institutes of Management (IIM) were set up at Ahmedabad and Calcutta for providing training in management, to conduct research in management areas, to develop teachers of management and to contribute to the growth of knowledge of management. Selected universities were encouraged and assisted to set up Departments of Management Studies. The Ford Foundation assisted the development of IIM by arranging collaboration with Harvard and MIT which included deputation of senior faculty for long enough periods to design and develop post graduate programmes as per local needs, to prepare local instructional materials including cases and to train Indian faculty members. Besides libraries, computer facilities were also developed; these two institutes made a big impact and they have been able to develop their own individuality, stature and strength because of autonomy, flexibility, capability, leadership and interaction with local management people and quality management education of relevance.

The conclusions that one can draw from Indian experience of collaboration with US and other universities are,

1. If programme is based on felt and studied need,
2. If programmes are developed in a collaborative manner and implemented in that way;
3. If emphasis is laid on integration of teaching and research with a view to meet immediate and expanding local needs;
4. If foreign universities depute quality people to interact and fertilize local capabilities; and
5. If local faculty is selected for ability and commitment,

then the foreign universities can effectively contribute to the growth and development of nationally viable institutions of sufficient stature and strength in order to contribute to the development process in the country and continued collaboration with institutions of learning in the future.

#### IMPACT OF EDUCATIONAL AID

It is time that we direct our attention to the impact of the educational aid developmental assistance that developed countries have extended to the countries of the third world. We are constrained to speak in terms of generalities in the absence of any consolidated and concrete data.

If one recalls that some of the third world countries were centres of learning in ancient and mediaval times and were active in not only dissemination of knowledge but also extension or creation of knowledge then the contrast would be more apparent. Today the best of the institutions developed through educational aid are basically communicators or transmitters of knowledge and not creators of knowledge in the fundamental sense of the term. One has to remember that modern educational system is a development that have origin in the colonial era; the substitution of traditional system have always been generally complete due to the economic, social and political gain that new system held out as against the old. For example, the Hindu system of education which existed in a parallel way during Muslim rule in Indian sub-continent, aded along with the latter to the new system introduced by the British rule. As Irene Gilbert pointed out in her book on the Indian Academic Profession (Minerva, July 1972) the education system was moulded in the culture of subservience not in the spirit of independent enquiry. This is true of British Academic Model in Singapore and Malaysia, as is also found of the Dutch Model in Indonesia, French Model in Francophone Africa or Spanish and Portuguese Model in Latin America and even the American Model in the Philippines. Does this not explain why the large mass of the people in these countries put together have failed to contribute effectively to the growth of knowledge over half a millanium or more? It is interesting to recall that many of the leaders of independence movements were products of the universities of the metropolis and rarely of the colonies. Has the scenario changed much since decolonisation? Unfortunately no. There has in fact occurred expansion of the colonial system through the educational development programmes which have received both multilateral and bilateral assistance. It is important to note that no nation have moved away in any significant manner from basically the colonial model of education which is now protected and nurtured by domestic power elite. Even countries like Thailand with no legacy of direct colonial rule have adopted western model. So has the Chinese whose attempt to have different orientation during cultural revolution on ideological grounds have admitted failure and re-adopted the western model. The socialist third world countries have basically adopted a variation of the Russian system which has its pronounced western roots.

What are the characteristics of this western model in the context of third wold? The foremost is the dominance of expatriate teachers or teachers trained in western countries. This results in importation of academic pattern.

inputs, process and knowledge not only at the outset but such dependence continues over time. This link of the third world system to the academic systems of the west creates a centre-periphery relation which implies that the western countries through educational aid becomes and continues to remain 'exporters' of knowledge (with ideological overtones) and the educational system of LDCs becomes the subsidiary of that international system. Unfortunately, no one traces any attempt on the part of donors or universities to help overcome this subsidisation process.

This is however not to deny that the growth of education system through indigenous and assisted effort have played a key role in the growth and development of the decolonised societies. The education institutions, particularly those of the higher education, play a very significant role in the third world context, even though because of limited access these countries have in effect created a small knowledge elite groups with total psychological dependence on whatever metropolitan system they owe their allegiance to. Because of this, educational aid has often been criticised as an assistance from elite to elite and have been considered as an important foreign policy tool for creating a dependent influential power elite within these countries. In this context it is important to recall that in almost all countries of Asia, Africa, Latin America access to higher education is still limited to less than 5% of the age group.

Another aspect of the growth of dependency model of education is absence of efforts to develop instruction material of a creative nature that are directly relevant to the impressionable intellect and the needs of development of the country. Of survey the textbook market in Philippines, Thailand, Bangladesh, Cuba, Saudi Arabia, Ghana or Tanzania brings have this striking fact despite variation in languages and at times them, Literacy has taken to be of value for and by itself, that its value can be enhanced by motivating creativity often misses the point. Knowledge of high order material in physics or economics seem to be of value for its own sake, question of their context, relevance or application is rarely discussed.

Another aspect of the dependent development in education is lack of autonomy and experimentation in education throughout the system, partly because of psyche developed through such system of assisted development. The onus for change must lie with the developing countries. Could the educational assistance instead of being mechanical in training and transmission of knowledge, create these needed sensitivity.

A more important aspect of the dependent development in education, is

the continued inability of the institutions to have the required research-orientation, continuous development of libraries and laboratories due to lack of access to funds. As a result these institutions fail to function as nodal centres of access to knowledge and distribution of knowledge; even when initial endowments may create some limited capacity. As a result the more competent scholar, whose professional allegiance is stronger than national allegiance, gravitate towards the center thus creating a vacuum in capacity that is rarely repaired or replaced. This in turn intensifies dependent relationship. This thesis was well articulated by Edward Shills in his essay on *Metropolis and Science in intellectual community* (Shills, ed, *The intellectuals the power and other Essays*, Chicago 1971). This problem is compounded when educational aid attempts to create islands of centres of excellence and create the centre-periphery relation which operates within the national system as well (David Raisman, *Constraint and Variety in American Education*, Anchor Books, 1958).

The challenge before the third world countries and managers of educational aid i.e. universities in the west is to approach the problem not from a limited perspective for a short time but one of transforming a centre peripheral system totally into one that becomes producers of knowledge on an equal footing with the centre and becomes integrated into the indigenous intellectual and educational system in order to avoid elitism on the one hand and gain strength from its own roots which alone can cure the academic peripheries from becoming the high-flying flags of dependencia. There is no doubt that the third world new educational institutions are pockets of modernisation efforts and they have potential to influence the dynamics of change but they are in chains and these shackles need be removed in a planned manner by the recipients primarily but with conscious effort on the part of the donors and cooperators in educational development.

#### NIEO IN EDUCATION SECTOR

It is appropriate to indicate the role of the higher education institutions in this regard. It may be recalled that new international economic order directs our attention to the necessity of directing efforts to obtain a life of dignity and welfare for all citizens of the world on the basis of equity, freedom, democracy, participation, solidarity and acknowledgement of cultural diversity and ecological integrity.

Recalling that the universities in LDCs are part of dependent superstructure, it is necessary to redirect the ambivalence of universities as

these institutions provide training and research outputs, perform a function of social selection of elites, generate norms of values and ideologies, contribute to legitimisation of values. However, they have rarely worked towards ironing out the social contradictions in the dependency. As a result, there is a need to reorient professional studies as professions are social structures in social development in the context of NIEO. This should involve creating awareness including needs of social reform to strengthen process of technological, economic and social change for higher productivity, greater equity and human dignity. The education system performs a desired task of educating and expanding the minds of the students, it should also create a social commitment to become constructively involved in the task of transforming the grave situation of poverty. This is an additional question which educational aid by itself does not address adequately and in some ways may even weaken it. The efficiency oriented curriculum with upgradation of knowledge rarely creates the commitment; rather it goes to create frustration and allegiance elsewhere. This is where the cultural aspect of education which promotes collective learning process to enhance capacity of human groups to understand and solve problems basically as a self-reliant effort takes on importance.

Thus to strengthen technological development of LDCs, it is not enough to provide intensive training in science and technology, it is also necessary to provide adequate opportunity with attendant resources within the social capacity to carry on scientific and technological application for development in the broadest sense of the term. This means educational programmes and development should be integrated into national policies of development through a continuous process of iteration, interaction and meaningful communication for promoting socially relevant development of knowledge through research and experimentation and wider communication of adopted or created knowledge to demystify professionalism.

The institutions of education are thus required to avoid purely academic approach and it should not be pushed to become bastion of political actions. The role should be designed to become one of the positive social interactions, integration with national development process while retaining its sensitive critical consciousness about society, polity and economy while protecting academic autonomy of the institutions which is the soul of its dynamism for socially useful action.

The development through educational aid have not generally created

this required social orientation in the institutions so established or individuals so trained.

#### ROLE OF EDUCATIONAL AID

What then is the role of western educational institutions in the 90s in respect of the development assistance to LDCs? To put it in the negative, the role is to avoid creating a center-periphery relation in the knowledge-industry and knowledge-trade. To put it in the positive, it means that the educational development assistance programmes designed and implemented through western educational institutions must be one of creating indigenous capacity for absorption, adoption, expansion and creation of relevant knowledge. How can this be done?

First, the assistance programme has to be considered socially and economically useful from the point of view of recipient country like Bangladesh which means it needs to be perceived, conceived and elaborated primarily by them (Bangladesh) with the help for articulation by the collaborating institution in the donor countries.

Second, the centre of planning, programming and implementing activity should be in the recipient country (i.e. Bangladesh) institution where the locally competent counter-parts should be encouraged to play significant and lead role in conceptualisation and implementation of the project so defined.

Third, it is important to consider that while it eases the administration of a project if it is located in one campus and programmes are standardised; on the other hand, it enriches enormously if the opportunity for training and research is spread over a number of institutions offering options of the range of standards, range of specialisations, and the range of ideology/approach. This kind of enrichment allows the recipient institutions to create a linkages network for its own purpose, as after all academic enrichment depends not only on cross fertilisation but also on cross currents of thought.

Fourth, the assistance need be of longterm, any of a decade's duration, through which some maturation of capacity in the recipient institutions as indigenous and independent centres of learning with a minimum standard of excellence and efficiency could be established through a process of gradual and guided transfer of knowledge and indigenisation of knowledge and programmed and phased withdrawal of expatriates to the background. However, the contact need be maintained through planned

instruments such as joint research, workshop, conferences over a larger period. We should remember an education system as well as an education institution takes time to gain roots and find its role and direction.

Fifth, care need be taken in selecting expatriate advisors. They need be knowledgeable, but more importantly, sensitive. They need to be committed to the welfare of recipient country and not a mere careerist. They need to guide but with clear objective of transferring the leadership, be flexible without compromising basic principles and objectives. They should not be afraid to make adjustment when justified and expand the programme coverage when called for but the basic intention should always be to create a critical mass of institutional capacity in terms of men, material and orientation that would allow the assisted institutions to bloom into a centre of knowledge creation and distribution without alienating it from the basic social, political and economic aspirations of the commonman, as horizontal, backward and forward linkages with other institutions on similar basis must also be planned simultaneously. However, these need be consistent with the mutuality of interest of donor country institutions and there may indeed lie the problem. Hence care and clarity on both sides are called for.

#### INADEQUACY OF FOURTH PLAN

The Fourth plan has basically failed to understand value of education. Its approach has been mechanical and it has evaluated achievement in quantitative terms and conceptualisation of the contribution of the education system has been totally missed. The physical dimensions, being without any basis, makes no promise of progress towards a self-reliant socially-relevant and development oriented educational system whose apex is higher education which feeds social production of the lower tier. The plan seem to deemphasize the critical mass of education system while planning to take care of such symptoms of illiteracy, drop outs, inadequate women education, lack of science education without an over-all conceptualisation. The education sector is becoming increasingly aid dependent, but unless due caution and national preparedness (like ROK, India) is exhibited, such aid-dependent human resource development may indeed be non-contributive towards self-reliant social and economic growth. Not only is the sectoral allocation too little for a longterm development, there appears to be a total misdirection of thought about the equity, excellence, access, relevance as well as accountability and achievement of the education system as whole. The sectoral plan as presented would only perpetuate elitism, dependence and dysfunctional extension of a moribund structure that exists.

## MACRO ECONOMIC POLICIES AND HEALTH STATUS: SOME REFLECTIONS ON BANGLADESH

MUZAFFER AHMAD\*

### INTRODUCTION

Macro Economics, in its current form, is a post second world war phenomena. The economic science, working under assumption of full employment, was basically concerned with allocation of scarce resources which have alternate uses under conditions of perfect markets of factors and products. The depression of the late 20s and early 30s made the economists aware of the underemployment equilibrium under conditions of deficient demand. This resulted in the systematic treatment of demand management so as to maintain a high level of output, if and when necessary through direct governmental interventions. The 50s saw the birth of newly independent nation states which had existed mostly at a below poverty level equilibrium trap caused by exploitation by metropolis and stagnancy of the socio-economic structure. At the same time the world experienced a policy induced reconstruction and development in Europe under the direct influence of foreign aid and local economic management. This gave birth to the policy economics which deals with the transition from initial under employment static equilibrium to long run self-sustained dynamic equilibrium. During the decades of 50s and 60s the economic policies were thus involved with stabilisation and growth primarily through demand management, with the help of monetary, fiscal and direct public intervention policies. The experiences of 70s in the developed economies have shifted the attention to supply-side fluctuations and rigidities. Thus the scope of macroeconomics has been widened and monetarist economics seem to be on the rise. The developing countries have also been subjected to the change in policy orientation through the influence of foreign aid and structural adjustment has been made a major policy objective in recent years in many developing economies because of aid conditionality. Such adjustment has laid emphasis on deregulation of investment, liberalisation of trade and privatisation of government entrepreneurial activity. The policy environment in many developing

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\* Professor, Institute of Business Administration, University of Dhaka.

economies is in a state of flux and Bangladesh is no exception to it. Hence a discussion of macroeconomic health policies in Bangladesh can only be tentative.

#### SOME FACTS ABOUT BANGLADESH

Bangladesh is one of the poorest low income countries with a population of 112 million people living in a land area of 144 thousand square kilometers. The GNP per capita is currently estimated at US\$ 170 making it the fifth poorest country after three famine and war ridden African nations and Tanzania. The average annual rate of growth achieved during 1965-88 is 0.4% when population grew at an annual average 2.7% and average annual rate of inflation was around 13 per cent. The average annual growth in agriculture was 1.5 during 65-80 and 2.1% during 80-88, in manufacturing for corresponding periods the rates were 6.8 and 2.4 and for services 3.4 and 5.2 per cent respectively. The share of agriculture in GDP has declined to about 40-45% and that for manufacturing has remained static around 7 per cent while the service sector has expanded fast in recent years accounting for over 40%.

Bangladesh has remained deficient in food. Its cereal import and aid totalled on average above 4 m tons per year. Even though average annual commercial energy production increased in recent years by about 14% and energy consumption by 7.6%, per capita energy consumption has remained at a low level of 50 kg oil equivalent per annum, for which import dependence is high amounting to 24% of merchandise export. In the manufacturing sector dominance of food, beverage and tobacco (26%), textile and clothing (32%) and miscellaneous (21%) is noticeable.

The real wages of employees have gone down at the average rate of 3 per cent per annum over the last two decades even when gross output per employee has increased. The income distribution is highly skewed with an estimated gini coefficient of 0.39; income share of lowest 40% of household is only 17% and highest 20% of household get 7.2 times the average household income of lowest 20% of household. This obviously makes consumption as skewed as those, possibly more due to lower bargaining power and poorer access of the low income families to market. In Bangladesh private consumption averages about 88 per cent of GDP and it shows a growing trend; while the government consumption is about 9-10% and it has also been increasing. This shows a very low level of domestic saving (3%) causing low level of domestic investment (12%) for which dependence on aid is very high as the resource balance has been

persistently negative. The consumption structure shows a high expenditure for food (59%) of which 36% is for cereal, 8% for clothing, 7% for fuel and power, 10% for others. This allows for only 2% consumption expenditure for medical care and 1% for education which is largely usurped or availed by the higher income group.

The average annual government expenditure as a ratio of GDP has been around 18% of which about 9% was for current expenditure and the balance for development. Of the current expenditure about 2.8% of GDP went to administrative services of which 1.4% went to Defence, 0.3% for economic services, 0.3% to infrastructure, 2.3% to social services of which 0.3% went to Health and Population and 1.1% to Education and 3.4% to other miscellaneous services including 1.5% for debt servicing of the Government Development expenditure, 3.3% of GDP went to economic sectors of which 2.2% went to agriculture and water sector, 3.8% went to infrastructure of which 2% went to transport sector, 0.9% went to social sector of which 0.5% went to Health and Population, and 1% went to other and the rest to administrative services.

The revenue/GDP ratio has been around 8.6% indicating that on average current expenditure had to be met from domestic and foreign borrowing. About 82% of revenues come from taxes of which indirect taxes on commodities and transaction contributes about 66% and direct taxes on income and wealth about 12%. Of the 18% non-tax revenue, about 11% comes from public enterprise operations and 7% from fees and miscellaneous receipts.

In recent years, the current government expenditure has increased at an average annual rate of 29.5% for infrastructure (which is mostly due to annual average increase of 45% for transport), 9.2% for economic services (largely due to undefined miscellaneous services which increased at 30%), 10.4% for social services (which is due to 20% average annual increase for relief while allocation for health and population actually decreased by annual average rate of 1%), and increase for other services has been of the order of 14.2% (which is largely due to subvention for local government amounting to 44.2% average annual increase).

The corresponding increases in development expenditure shows an average annual increase of 18.5% for other sector (which is caused by annual increase of allocation for local government by 23% and 34% decrease in subsidies), 14.8% increase for administration, and 4.7% increase for social services (in which increase in health and population was

6.9% and for education 3.4%). There was actual decline in real investment in economic sector (-5.8%) caused by decline in Agriculture (-6.2%), and in infrastructure sector (-0.9%) caused by a decline in allocation for transport sector (-4.2%) and physical planning (-4.8%).

The crude birth rate per thousand population has decreased from 47 in 65 to 40 in 88, and crude death rate also decreased from 21 to 15. The women of child bearing age as a percentage of population has increased from 44 to 46 and is likely to increase further. Total fertility rate decreased from 6.8 in 65 to 5.5 in 1988. There is one physician per 6,700 person and one nurse for 8,980. Infant mortality per thousand is 118, 31% of babies are born with low birth weight and only 18% of one year olds are immunised. The daily calorie supply per capita is 1927 and calorie intake is also skewed as it is highly correlated with purchasing power availability. About 60% of relevant age-group are enrolled for primary education, of them only 18% complete five years of primary school and access to tertiary education is available to 2.5% of the relevant age cohort. About 13% of total population live in urban areas and 3 cities with 500,000 or more population account for more than half of that number.

Under-five mortality rate has decreased from 262 per thousand in 1960 to 188 now. But about 60% of under-five children are underweight. Life expectancy at birth is estimated to have increased from 40 in 1960 to 52 years. The percentage of population with access to health services is said to be 45%, those with access to safe water is estimated to be 46% and those with access to sanitation is as low as 6%. This means that 60 million people have no access to health services, 59 million have no access to safe water and 103 million to sanitation. The population below poverty level is estimated at 94 million.

The expenditure on health is 0.4% of GDP and per capita per annum private expenditure on health is about US\$ 3.2 in purchasing power parity terms which is equivalent to US\$ 0.6 in nominal terms.

#### MACRO-ECONOMIC POLICY CONCERNS

Macro-economic policies deal with macro aggregate in the economy viz. output, employment, wage level, price level, savings, investment, consumption, money supply, interest rates, capital accumulation, government revenue and expenditure, international transactions, etc. The basic concern is to maintain a high level of domestic employment, output and income. In order to do so, it has to take care of the demand side involving maintenance of full employment equilibrium level of income and

price level. This in turn is related to maintenance of equilibrium level income and interest rate in product and in money market simultaneously so that equilibrium is attained in product and money market. Where such equilibrium is not attainable through normal market operation, recourse to monetary and fiscal policy on the part of the government becomes necessary.

When the demand side equilibrium is concerned with income and interest rate, the supply side equilibrium deals with output and price level. The focus has been primarily on labour market where nominal wage rigidities cause underemployment equilibrium. In this context the price policies become important to promote and /or maintain full employment level of output.

The demand can be divided into consumption demand and investment demand and these could come from private, government or external sectors. The demand management therefore has to concern itself with maintenance of consumption level for stabilisation or promotion of consumption when demand is deficient or for restricting it when demand induced inflation gets to become harmful. In this connection impact of wealth effect becomes a policy consideration. In influencing consumption, income and wages policy are important considerations.

The investment demand depends on the rate of return on investment which depends on interest rate structure, state of the economy and supply of investible funds out of savings. Here again monetary and fiscal policies are used to promote or restrain investment demand. A debate on the effectiveness of monetary Vs. fiscal policy have been a part of the literature for a long time.

The demand and supply of money becomes important consideration to influence the equilibrium level of money supply so as to maintain a level of interest and investment that ensures full employment output and income level.

The external demand brings in further complication in addition to investment, savings, liquidity and money supply relations as foreign exchange rate and policies with respect to that have direct bearing on the external demand and supply.

In dealing with demand side and supply side equilibrium involving product, factor and money markets, the problems of inflation, productivity, unemployment, recession, depression, stagnation, recovery, asset adjustment, growth as well as income distribution have to be addressed through macro-economic policies.

#### HEALTH SITUATION AND STATUS

In the recent publication entitled Human Development Report by UNDP, the health profile has been defined in terms of expenditure on health care, availability of medical care defined in terms of thousand of people per medical functionary, access to health services and maternal mortality rate. This is indeed a much narrower definition than world declaration on Health for All which includes awareness (health education), access to safe water, housing and sanitation, food and nutrition, immunization, health care delivery system, availability of essential drugs and community participation. A similar approach is available in literature which speaks in terms of social situation i.e. (1) demography and population; (2) food and nutrition; (3) safe water and sanitation; (4) housing facility; (5) environment and pollution; (6) basic clothing; (7) culture and education; (8) income, work and welfare; (9) health manpower and institutional delivery system and (10) availability of essential drugs. The ESCAP-WHO-UNICEF meet held on 7th June 1983 has discussed a similar approach. It is useful to recall some of those discussion for our purpose in the context of Bangladesh.

##### *(The Demographic Factor)*

Demographic factor is an important determinant of health needs and the mix-of health services required not only in quantitative terms but also in qualitative terms. In Bangladesh, population has increased from 51 million in 1960 to 114 million in 1990 and it is estimated to become 151 million by the turn of the century. Assuming the static composition in terms of income and employment, with commensurate growth of morbidity, the demand for health services would increase proportionately. But the increase itself would change the age and sex composition of the population which would require a different mix of health personnel and health care delivery services. Given the limitation of land and increasing urbanisation, the rural-urban population balance is most likely to change. This dynamics alone would call for action to remedy urban-rural gap in a democratic system. The demographic factor is likely to influence the social environment including incidence of poverty if economic growth rate remains sluggish as it has been. The gap between need and effective demand due to skewed income distribution is likely to complicate the health situation further.

This calls for governmental intervention to reduce the rate of growth of population, creation of employment opportunity for the disadvantaged, increasing access to education of this group and changing the production relation in a manner that benefits this group increasingly so as to bring

about attitudinal change, community participation and technological intervention in work for increasing productivity as well as creating proper marketing outlets.

The governmental policy in the population sector has been one of investing in institutional infrastructure, creating awareness through media, motivating acceptors through information dissemination and contact with paid workers and one-time payment for loss of income, motivating referees and medical personnel through fees and subsidised marketing of various contraceptive products. Awareness amongst target population is widespread but continued contraceptive use or permanent method acceptors are limited. The macro-policy of investment in institutional infrastructure seemed to have failed due to organisational failure and macropolicy of subvention, subsidy and payment of fees seemed to have limited impact due to both organisational and market constraints. The acceptors seem to be middle class families which is still a thin crust and destitute women. As children have consumption utility, income utility and status, security and insurance utility in the predominantly rural and agricultural community, unless the socio-economic equities in terms of access to education, employment, income and social mobility is assured, ideational and attitudinal change would not take place to respond to the macro-policies currently being followed in this respect in Bangladesh.

#### *The Employment Factor*

Employment is not merely a means of ensured income but also an opportunity for contact outside the household. The employment with sustained income in real terms creates the ability to attain a level of consumption, nutrition, and health care. The other dimension of employment relates to age and sex composition. Besides certain kind of employment carries with it work-related morbidity/mortality.

In Bangladesh, none of the development plans promised to do no more than absorb the increase in labour force i.e. keep the unemployment and underemployment in absolute numbers stable. Employment through the labour market is created when effective demand increases requiring deepening of capacity utilisation or expansion of capacity for production. Both would need investible fund-fixed and /or circulating capital. Thus sustained employment depends on demand factor which is a function of price, income and population with purchasing power and 'supply factor' which responds with physical capacity creation as well as training of manpower and supply of inputs.

There has been a slow but steady increase in agricultural output through government investment in irrigation, extension and related activities. The adoption of HYV has required increased capital and labour input. While increase in population has made labour available at depressed wage level from the expanding landless group, availability of capital was increased through expansion of the network of nationalised banks and special credit programmes but which barely reached the small farmers. Though intensity of cultivation has increased, it has not been able to absorb in addition to rural population and the income disparity seems to have widened and the gini coefficient related to rural income compared to gini coefficient related to land holding is higher. Government intervention has done little to reduce it through policies related to access to production assets, income generating input supply or to credit.

The increase in non-farm employment in rural areas has been slow as an increasing number of people has been marginalised and the demand for products from rural non-farm activity was constrained by income factor. This has also constrained the growth of market of urban sector in rural areas. There has been no policy to provide protection to rural non-farm activity. NGO activity has been sporadic and except for few visible successes, many of them made no significant impact at all. The cooperatives also made little headway compared to the need.

In the industries sector, after the rehabilitation through public sector intervention, the policy for promoting private sector through liberal credit, interest rate, tariff and tax concessions resulted in a large number of sanctioned but non workable projects, made risk free through over capitalisation and/or low capacity utilisation resulting in increase in sick industries and rise in capital output ratio. There has been no significant measures to protect labour-intensive small industries. Thus expansion of employment in this organised sector has also been constrained. The policy of promoting the export sector has also resulted in unplanned expansion of garments industry which has been allowed to pay less than minimum wages to the vulnerable women labour.

The expansion of employment in construction, public utilities, services, trade and finance sector has not been able to absorb the new entrants despite expansion in administrative network, financial institutions, trading houses, etc. As a result according to World Bank estimate, based on BBS estimate of labour force participation, unemployment rate increased to 55.7% in 1984/85 from about 30% in 1972/73; it may have been reduced

to 50.4% in 1989/90. This coupled with the information that earnings per employee declined at an annual rate of 2.9% during 1970-80 and at 3.7% during 1980-86, one is constrained to conclude that the policies related to employment creation have not been successful and those related to income maintenance have been less so. Thus the employment and wage factor for ensuring better health status in the context of Bangladesh provides a dismal picture underscoring failure of macro policies in this regard. The situation would have been even worse but for food for works (FFW) and rural works programmes (RWP) which creates some employment opportunity for vulnerable group.

#### *The Food and Nutrition Factor*

In Bangladesh there is no land use planning. Total cultivable area is about 22.8 m acres and total net cropped area is 21.8 m acres. The average cropping intensity is about 160, the coverage by irrigation (where much investment has been made) is about 25% of net cropped area. With 1972-73 as the base year, the production index for agricultural crops is about 146 and value added index is 124. There is predominance of large number of small farms. Of more than 10 million farm holdings, 25% has less than half acre of land, 15% between half and one acre and another 30% between one and two and a half acres. The average size of farm has declined from 3.5 acres in 1977 to 2.3 acres in 1988. These figures are presented to indicate that not only the government failed to institute a growth oriented land tenurial system but also it failed to restrict subdivision of land holdings through legal and institutional measures. This has made adaptation of technological innovation difficult. With 1972/73 as the base year, cereal production has increased by about 60% in 15 years i.e. an expansion at an average rate of less than 3% per annum. This has been achieved at the cost of such crops as pulses and oilseeds and fish. If we accept a 2.5% increase in the rate of population growth, the net per capita increase in agricultural product has been around 0.5%. Given the increasingly worsening income distribution, and a food distribution system in favour of a particular service category, the per capita availability of food in terms of purchasing power of common man has gone down. This has resulted in decline in daily calorie supply index from 91 in 64-66 to 83 in 1984-86.

Research indicates that dependence on market forces when markets are imperfect have resulted in the following: (a) subsistence and landless households have been forced to take consumption loan at high interest rates resulting in loss of income earning assets, (b) prices at harvest time when small farmers sell to repay loans are low and the periods when they

buy food or seed the prices are high resulting in loss of income, (c) The trade margin calculated on the basis of doorstep prices and urban/export prices of agricultural produce is high indicating low bargaining power of producers and presence of exploitative middle-men in the system, (d) the urban rural terms of trade has moved against rural areas and this trend has been intensified by withdrawal of subsidy from agricultural inputs, and (e) large import of foodgrain as aid has kept the domestic prices of such products low benefiting urban people and depriving the producers.

Thus the macro policies of the government with respect to prices of agricultural inputs, agricultural outputs, agricultural income, rural asset ownership, access to rural credit have increased human deprivation in rural areas and resulted in extension of such poverty in urban areas. This has affected the nutrition status of the people adversely, vulnerable feeding programme does not seem to have made a dent. There is no mentionable children feeding programme either. The ESCAP, WHO, UNICEF report assuming a 5.6% increase in income for bottom 10% of household and 1.5% aggregate growth rate of income calculated that it would take 156 years to ensure calorie adequacy for 95% of population with less equal income distribution and 77 years with no change in income distribution and 50 years with somewhat more equal income distribution. This simple information tells us that improvement in nutrition status of Bangladesh requires a massive intervention through income policy with a defined equity target. Bangladesh government has made no move in this direction. The increasing dependence on market forces seem to have aggravated the vulnerable position of the low income group.

#### *Safe Water and Sanitation Factor*

Safe water and sanitation are two basic components of hygiene. The morbidity pattern in Bangladesh, particularly in rural Bangladesh, shows that much of the common diseases could be controlled through access to safe water and better sanitary practices. In the health sector plans this concept seem to be almost totally absent.

Availability of safe water in rural areas from reserve tanks, flowing rivers and tubewell have been the practice. Many of the tanks have become derelict and many of the streamlets and tributaries during non-rainy season become dry. The investment in re-excavation of tanks or dredging of rivers have been relatively small. However the HTW have been widely distributed in recent years through UNICEF and NGO programmes. Though in many cases it was intended to be for small scale irrigation, the micro-survey shows

### *Ahmad : Health Status*

that these facilities have increased access to safe water in rural areas. Even then Human Development Report indicates that in 1985-87 access to safe water was available to only 46% of population. This is largely due to absence of awareness, cultural practices, malfunctioning of HTW's and availability of HTWs basically with better-off families. The HTWs were made available through credit under WB/UNICEF programme administered by BRDB. Very few made use of the credit opportunity. There were subsidies on the HTW but this has now been lifted, though for DTWs subsidies still exist. In the urban areas water supply is the job of the municipal authorities. No more than 30% of urban population have access to safe water. Despite increase in the water tax in urban areas, maladministration has made this basic function less efficient now than before.

The situation is worse in the case of sanitation. The Human Development Report has recorded the access to 6%. As per available statistics 24% of urban people and 3% of rural people have access to proper sanitation. There has been no housing codes. In rural areas, due to endemic poverty and cultural practices, access to sanitation remains limited to only the well to-do. In urban areas the increase in slum-areas, increase in floating population and inappropriate sewerage system the situation has become worse than before. The UNICEF funded programme to supply low cost sealed water latrines in rural areas through integrated rural development programme and NGOs have only touched a fringe; there is no meaningful programme in health, education or community development programme in this respect. Fiscal incentives and credit availability as part of macro-economic policy framework are absent. The international decade of safe water supply and sanitation has passed by without any ripple.

These observations are confirmed by the reported morbidity pattern from the rural areas and of the urban poor.

### *Housing Factor*

Housing has been considered to be a basic need. Human Development Report has attached no importance to Housing at all. Alma-Ata declaration seem to have assumed shelter as axiomatic or subsumed in broader concept of environment, sanitation etc. The morbidity pattern of Bangladesh indicates a strong correlation with nature of house, particularly with respect to respiratory diseases.

In Bangladesh, housing is basically a private sector activity. The government or government financed bodies have provided housing to top functionaries, some basic housing to essential service people and

additional housing to a limited percentage of employees. The private sector production and service organisations have followed a similar policy. Thus government investment in housing sector has been urban-biased and higher income biased. The loan availability for private sector house construction has also been confined to urban sector particularly big cities with more than 500,000 people. The concentration ratio is about 0.89. There has been some reconstruction activity related to housing after natural calamities, some activity by NGOs and recent attempt at 'cluster housing' for landless. Grammen Bank seem to launched a programme for housing loan for its members.

According to 1981 census the total number of household was 14,785,048. Allowing for 5 person per household on average, it only accommodates 74 million people which indicates that 15 million people were houseless. This homelessness has increased with increasing landlessness and urban-migration of the poor. The average floor space of living quarters is 288 sqft per structure i.e. 57 sqft per person. Further only 5% of houses are pucca structure and 11.6 are semi-pucca structure. In other words, 'proper' housing was not available for 83.4% of people. Despite increase in housing facilities, the macro picture is about the same. In the meantime construction cost has increased at a faster pace than income, making it almost impossible for lower and middle income group to provide themselves with proper housing. The investment, income and price policy of the government has not helped to improve the position of housing of the masses, rather it appears that situation has deteriorated due to non-availability of funds for investment in housing, general decrease in real income of the large segment of population, particularly rural population and more than proportionate increase in construction material price index.

Government has no programme for building or improving rural housing. The government investment is limited to housing administration offices and some functionaries. Even rural well to-do build better houses for administrative personnel. The not so better off are left to very poor housing condition characterised by overcrowding, poor ventilation, no access to piped (safe) water, little protection from insects or rodents and poor sanitation. Bangladesh has given no serious thought to the problem of rural habitat despite the fact that majority of people live there largely due to the fact that policy makers are urban dwellers and market forces favour investment in urban housing market. The plan documents bear testimony to this fact and unpardonable neglect.

Demographic process, speculative interests class structures, technological uniformity within diversity, weak local government, economic imperatives, inadequate investment in housing research and administration have made urban housing equally problematical. The cities experience uncontrolled explosion divided amongst sprawling modern suburbs and overcrowded older parts and new shanty ghettos. Nobody seem to have any clear idea of how to meet the financial and administrative needs of rapid urbanisations.

The macro economic policies have not been geared to meet the needs of rural housing or the needs of lower classes in urban areas. The policy seems to be to accept squatter settlements without recognising occupancy or tenure. These affect the residential environment of those living in these conditions and also affect others through various means including human contacts.

The policy for better housing need to take the following into consideration: more secure tenure, better protection from natural elements (e.g. floods), adequate room space, access to safe water, hygienic disposal of household and human waste access, to cheap building material and safety of structure. These interventions require better municipal services, adequate income and proper civic education and education about health impacts of habitat. Thus macro policies directed to employment and income generation, promotion of civic facilities, education and effective municipal administration are a necessity. In Bangladesh such an approach virtually is non-existent.

#### *Environment Factor*

Safe environment as a resource and pollution as a cost are recent awareness. World Bank projects have created environmental disaster in the past. The Environment conscious groups as a fall out of the consciousness about atomic radiation hazards have emerged in many European countries. Developed countries have data on sulfadioxide levels in the air, urban monoxide levels in the air, dust fall per square meter, biological oxygen deficiency in water, mercury content in hair etc. Such data collection is yet a far cry for countries like Bangladesh. But information about open space per household, park area per thousand inhabitant, vegetation biomass per sq kilometer, etc. are easier to collect. Environment impact analysis is a new discipline and no worthwhile organisation exists to provide a country like Bangladesh with information and policy recommendation. The macropolicy would be to tax air and water pollutant

elements heavily and subsidise activities that reduce such pollution. Bangladesh has, so far, despite an office on environmental pollution, done nothing in this respect. The only loud and clear annual ritual seem to be tree plantation weeks, while at the same time encroachment on natural vegetation by development project and increasing population act to the contrary.

Water pollution, particularly during dry season and flood and from use of chemical fertiliser and pesticide, is a common feature. Air pollution is increasing due to expansive of industries and transport sector. Pollution due to effluents from use of chemicals from industries is a common feature. There has been no attempt to understand the ecosystem and to formulate a socio-economic approach wherein macro economic policies would feature. However, it is possible for the government to tax or impose penalty on pollutant activities and provide easier credit or tax rebates for effluent and pollution control measures taken by production units.

In this connection the energy link should be mentioned. Increasing deforestation in rural areas for getting fuel is a cause of soil degradation. Commercial energy is either not available or more expensive. Bangladesh follows a discriminant price policy to make commercial energy available to rural areas. But the income factor has constrained both the demand and investment factor has limited the supply.

#### *Education Factor*

The health status is highly correlated with educational level. Education is a vehicle through which awareness about health and hygiene can be created. The contribution of adult literacy, primary education and continuing education in this respect is of utmost importance. Furthermore speed of female and mother literacy seem to have discernible impact on family health status. This however is linked with returns to education through employment which creates the opportunity to adopt better and cost-effective health practices and hygiene at preventive and curative levels.

In Bangladesh, share of expenditure on education as a percentage of GDP is much too small. The adult literacy rate is reported to be 33 in 1985 but adult functional literacy as seen from micro studies around 23 in 1989. The out of school children is no less than 20 million but is possibly about 40 million. The drop out rate in primary school is as high as 80% at grade one. Only 2.2% of GNP is spent on education and of these 39% is spent on primary education. There exists an ever-widening urban-rural and a

decreasing male-female gap. The enrollment is directly linked to income and land holding. In terms of landholding, landless group constituting 44.5% of household in a survey accounted for 31% of enrollment while 7.7% of families with 5 acres or more land accounted for 14% of enrollment. The dropouts were mostly from the landless and small farmer families. The free primary education, supply of free text book and at one time supply of uniform to girl students thus benefited the well to do. Researches have shown that unless the time for schooling is made convenient to the poor, unless there is compensation for income loss due to loss of the value of child labour, mere provisions of school, some benches, furnitures and books would not create meaningful access and continued participation in education by the children of low income groups and particularly of the female child. The macro policies of investment in education seem to have failed to tackle this basic issue. Further, in theory there exists a rural bias but it has been devalued through quality devaluation. Similarly in theory such a shift in emphasis has created the condition for redistribution from the rich to the poor but in practice both quality devaluation and non-compensation for immediate cost and income loss have restricted the benefit of such expenditure. This is reflected in the study of government expenditure incidence. For the current expenditure on education, the ultra poor group constituting about 40% of population, receive only 4.3% of benefit in terms of expenditure. For the development expenditure on education, it is about the same. Thus the macro policies related to government revenue and capital expenditure in the education sector in Bangladesh have failed to redistribute resources as is expected from such a premise.

#### *Basic Clothing*

Clothing is a basic need. In Bangladesh per capita availability of cloth is too small. The production of mill made cloth has declined despite expansion in capacity. The production of yarn has gone up indicating some expansion in handloom or small powerloom sector. There is increase in import of yarn through legal and extra-legal channels. Even these would not indicate a increase in per capita consumption of cloth of 6-8 yards per capita per annum. The importation of old cloth has a booming market amongst the low-income groups. This import has come under severe restriction in recent years as it affects adversely the mill and handloom sector. The Household Economic Survey indicates that the poor and low middle income groups can spend very little on clothing. The high income group demonstrates an increased dependence on foreign-made cloth. The result has been a demand constraint for the domestic textile sector

which could have created employment quickly and a supply constraint in response to the demand factor. As a consequence of low income, basic need for clothing remains unmet. Liberalisation of trade has neither helped the producers or the consumers. The income and price policy remains undefined to meet such basic needs of the low income groups who constitute the majority of the population.

#### *Health Care Delivery System*

In Bangladesh five systems of health care persists. First is faith healers who are the first and at times only recourse of the poor and some times even of the wealthy. Second is the Ayurvedic system which seem to have declined. Third is the Unani system which seem to have made a compromise with some Allopathic medicine and exists on the periphery. The Homeopathic system has expanded due to price and income effect. The cost of homeopathic treatment is low compared to allopathic treatment and is preferred by the lower income group due to decreasing real income effect. The educationally less qualified people, even retired persons, have found homeopathy practice to be a good source of employment. The unmet demand of health care is partly catered through these systems. They persists due to economic, social and cultural factors.

In the allopathic sector there is in theory an elaborate structure. At the village level there are rural dispensaries (1210) at union level there is Health and Family Welfare centers (2100). At the upazila level there are upazilla Health Complex (351/245). At the district level there are District Hospitals (64). There are about 875 hospitals of which 608 with 26675 beds are in the public sector. Even then population with access to health services is estimated at 45%. There is one physician per 6.7 thousand people and one nurse per 9 thousand people.

The complaints of non-availability of care, service and drugs at the lower tiers of the health care system is a reality. A survey indicates malfunctioning of 95% of dispensaries and 80% of upazila and union level units due to non-supply of drugs, non-functioning of equipments, non-presence of medical personnel and non-maintenance of physical facilities. The situation at district and other hospitals are only marginally better but the poor gets only marginal attention or access. The better arrangements are available in combined military hospitals, specialized hospitals and private clinics which are largely out of bounds to the majority of the population. It appears that the system suffers from a managerial deficiency and the macropolicy does not make adequate provision for appropriate planning, managing,

### *Ahmad : Health Status*

organizing, investing, maintaining and controlling the system. The redistribution seem to favour not the poor but the well-to-do.

The study on incidence of government revenue and expenditure on health indicate that poor families receive only 34.95% of benefit of capital and current expenditure while they account for nearly 80% of the household while the better-off families get benefit to the extent 65.05% being only 20% of the household. However there is a small net transfer of income as they pay only 30.14% of tax and non-tax revenue.

### *Health Manpower*

Despite the expansion of Health Service Cadre, there is no organised appropriate Health Services Cadre covering requirements of various types, sectors and locations. Bangladesh essentially continues with old colonial system. The pay and remuneration structure is also primitive. As a result a planned epidemiological service, an organised laboratory system, an effective structure of hospital and dispensary system, a standard system of education and training institutions, a supervisory and monitory unit and a policy making process have not evolved.

Since the policies, programmes and projects are all made by highly trained elite medical and bureaucratic professions, the manpower available has become urban centred and they often perform the services of paramedics as the support service system has not been built up. The first plan noted severe shortage of nurses, midwives, lady health visitors, sanitary inspectors, compounders, laboratory technicians, radio therapy and physiotherapy assistants, etc. It also noted that there is an unbalanced emphasis on institutions for teaching and training physician and surgeon. The plan specifically noted difficulty in findings proper teaching staff for outlying medical colleges. The plan admitted non-availability of adequate investible funds for training medical manpower in a balanced manner and building teaching and training institutions with proper physical facilities including laboratory and equipments.

The Fourth Plan notes that manpower is a critical resources for the health sector. It is not possible to improve the health services without improving the qualities of different categories of manpower. The main deficiencies with regard to health manpower were paucity of personnel and lack of proper training. These were due to inadequate manpower planning, complicated recruitment procedure and insufficient training facilities, etc. This remark has been made after the plan had noted with satisfaction substantial progress achieved in augmenting availability of graduate

physicians and surgeons as well as nurses. There has been significant progress made in specialist education at post graduate level. Thus the deficiency remains in mid-level paramedic, supportive technicians, grass-root level workers, and health administrators. The plan further notes that there is a mis-allocation between education at medical colleges and post graduate institutions and the type of services their output are required to render. The plan recognises deficiency in training in community health, health planning and health management, hospital management, health administration, medical technology, medical assistants, paramedics, radiographers, pharmacists, sanitary inspectors, dental technicians, radiotherapy technicians, etc. The allocation in capital and current budget for health sector has been TK. 580.00 per capita per annum in current prices. This needs to be augmented. Further, capital utilisation in existing physical infrastructure need be intensified and bias towards high-tech specialist education need be corrected. The geographical imbalance and support service imbalance need be corrected through increasing allocative efficiency and subsidisation of specialist education need be drastically reduced. The macro-economic policy of investment allocation to the sector in general and sub-sectors in particular have been inefficient and price policy for providing education and training and been equally inefficient.

#### *Production of Essential Drugs*

Availability of essential drugs in the health care delivery centres, except for such units as military hospitals, have always been inadequate. The degree of inadequacy has recently increased. The central procurement and distribution of drugs and supplies have been inefficient. The drug administration and supplies in the health care units at all levels have not been free from abuse. No effective steps, despite many committees and recommendations, have been taken. This is clearly admitted in the Fourth Five Year Plan.

The government drew attention of the world by proclaiming a drug policy which among others tried to restrict production and distribution of non-essential (psycho) medicines and increase the share of domestic sector by requiring production of drugs according to its generic names and subjecting various non-essential mix of drugs to control. This raised much controversy and the established multinational companies share in the drug market was reduced as a consequence. The government went forward and completed two pharmaceutical units to produce essential drugs for primary health care. However, as a result of unplanned expansion of pharmaceutical units, most of which are vialing and tableting units, there

now exists unused capacity and a problem with respect to quality control has surfaced. The government capacity to check qualities of types and batches of products from large numbers of units is limited. Many units do not have proper quality control units or equipments. The problem with respect to pricing of output remains. The government intervention has failed to ensure adequate supply of pharmaceutical products at a price which is within the reach of commonman and which is considered remunerative by the producer. Because of this, consumer level survey indicates that prices at that level is at times higher than that fixed by government, banned medicines are also available through extra legal trade channels and quality has been reported to be poor. The policy of control over sales of habit forming drugs with side effects through prescription is basically non-operative. Thus macro policies and regulation have not promoted investment in "essential" and "life saving" drugs. The trade policy has not paid adequate attention to this aspect through tax and tariff variation. The price policy is ineffective at the consumer level and distribution policy responds to market scarcity rather than needs. The availability of essential drugs is estimated at 50% of requirement.

#### *Income Policy*

One of the important conclusions of the earlier discussion of various aspects that determine health status of a country is that the most important variable that determines the health status is access to resources and institutional facilities including those aspects determined by education. This access is highly correlated with distribution of income. A cross section study of income groups within a country and various countries with different income levels indicate that income and health status are positively correlated upto a level and then the strength of the correlation becomes weaker.

The question of income thus has two aspects i.e. aggregate GDP and distribution. The distribution of income is deeply embedded in the power structure of the country and have political, economic and social dimensions. Chenery, Stewart, et. al. believed that there need not necessarily be a conflict between growth and equity though there has been such conflicts in the past. Adelman and others found real conflicts between policies promoting growth and policies promoting equity. Some view the conflict as a short-term phenomena which is taken care of by fast real growth. It is now agreed that a systematic approach to policy formulation is necessary because of the multiplicity of interdependent influences that impinge on the distribution of income.

Such a systemic approach to income distribution requires disaggregation of productive sectors, factors of production and socio-economic groups. In addition cognition has to be taken of institutional specificity, choice of time frame, approach taken to validation and approach taken to extrapolate relevant variables. The policy areas for income distribution is related to relative factor prices which influences structure of demand and hence production, relative product prices which is often tampered by direct and indirect tax structure, technology which influences substitutability between factors, control over uses of products and services through, for example, government expenditure policy including public works, control over uses of factors, for example, through licensing, direct transfers by government, rate of inflation, inter-temporal transfer, structure of ownership of wealth and hence income from property, etc.

The systemic approach within a time framework need be done within the circular flow of income and expenditure or supply of factor services and factor incomes and these need to take into consideration behavioural nature of producers and consumers under institutional constraints. The economic theory has been concerned with functional distribution of income. The growth of the theory of human capital involving investment in education, health and environment has forced a focus on the household or size distribution. Thus the process of household formation becomes an important part of the systemic picture. This is done by relating the distribution of the ownership of factor to household and thus income. It is important to recall that there is full interaction between structure of production, demand for and payments to factors, distribution of income and finally the structure of demand.

These considerations are presented in some pictograms. The conclusions of a study on Korea is relevant. The policy instruments normally used are largely ineffective as their effect get quickly dissipated with no hope for trickle down effects. The only way macro-economic policy can hope to have an impact on anti-poverty income distribution which alone can raise health status is to pursue a coordinated package of diverse instruments which affect a large part of economic activity. The feasibility of such a policy package is dependent on the balance of political power amongst different socio-economic groups.

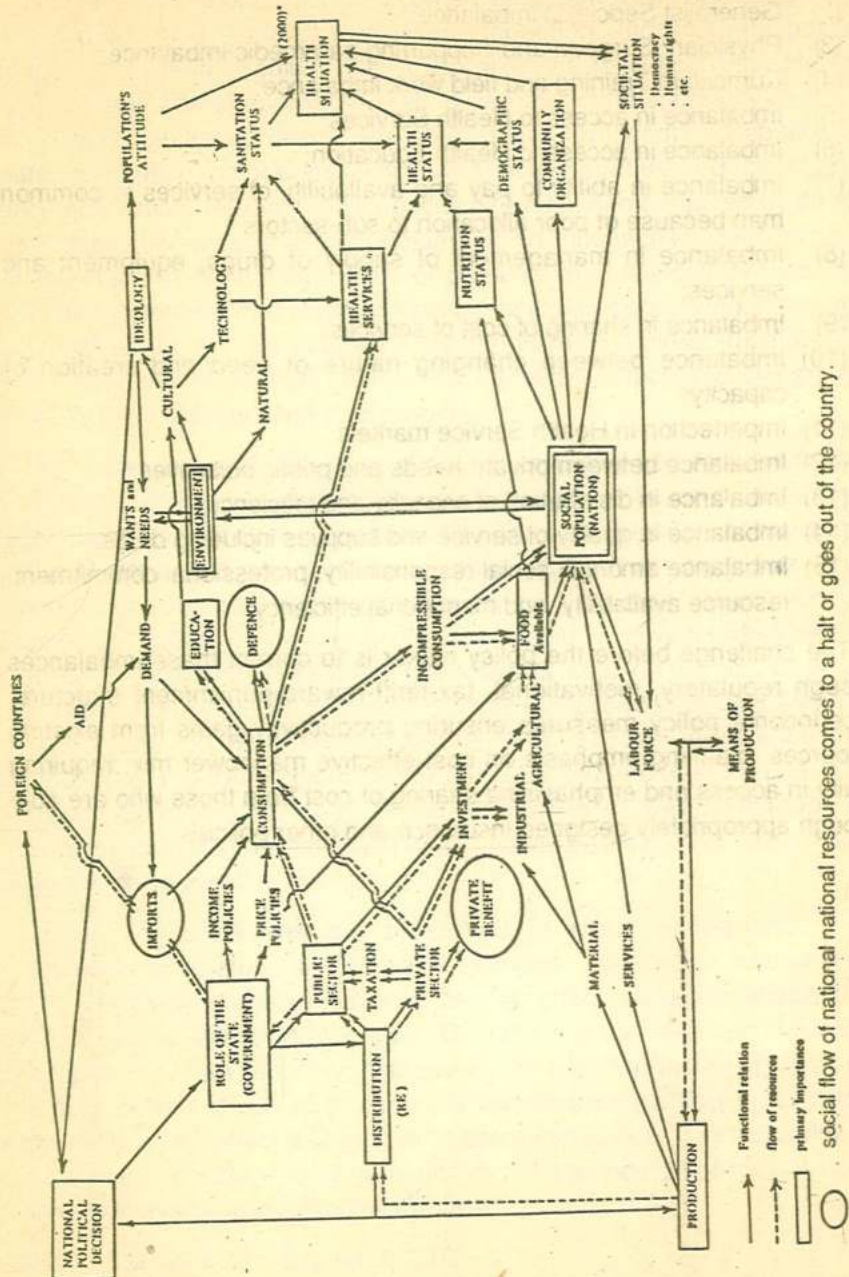
#### **POLICY ISSUES FOR HEALTH SECTOR**

From the experience of the past decades the following health related policy issues stand out:

- (1) Rural urban imbalance;
- (2) Generalist Sepcialist imbalance;
- (3) Physician/ Surgeon and Supporting paramedic imbalance;
- (4) Curriculum Training and field work imbalance;
- (5) Imbalance in access to Health Services;
- (6) Imbalance in access to Health Education;
- (7) Imbalance in ability to pay and availability of services to common man because of poor allocation to sub-sectors;
- (8) Imbalance in management of supply of drugs, equipment and services;
- (9) Imbalance in sharing of cost of services;
- (10) Imbalance between changing nature of need and creation of capacity;
- (11) Imperfection in Health Service markets;
- (12) Imbalance between private needs and public objectives;
- (13) Imbalance in distribution of capacity and efficiency;
- (14) Imbalance in quality of service and supplies including drugs;
- (15) Imbalance amongst social responsibility, professional commitment, resource availability, and managerial efficiency.

The challenge before the policy maker is to correct these imbalances through regulatory, motivational, tax-tariff-reward-punishment structure, price-income policy measures ensuring productivity gains from existing resources, planning emphasis on cost-effective manpower mix, requiring equity in access and emphasising sharing of cost from those who are able through appropriately designed insurance and other policies.

**Figure** Health system in a development perspective



(2000)\* a network of relationships possible to be projected as Health for All by the Year 2000.

# Dynamics of Macro Economic Policy

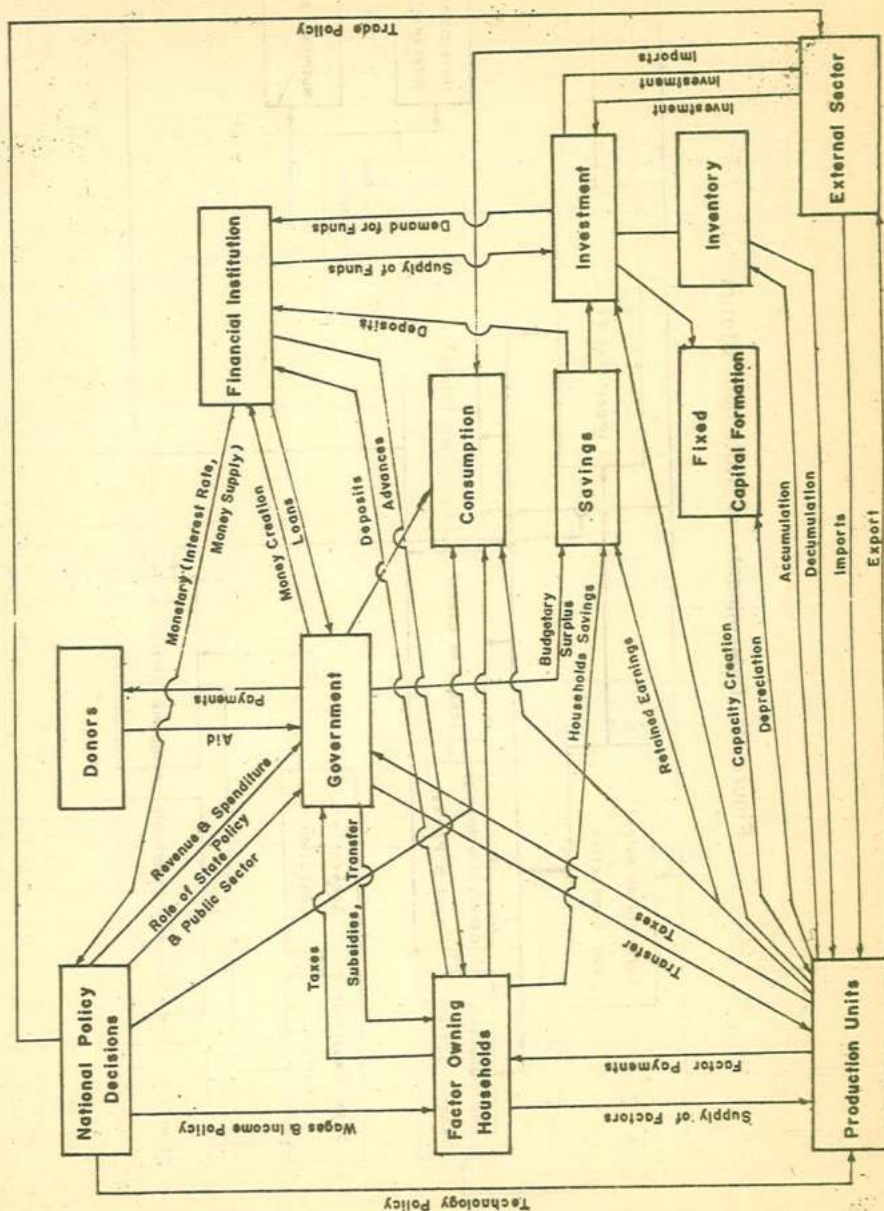


Figure 3. Determinants of Nutrition Status

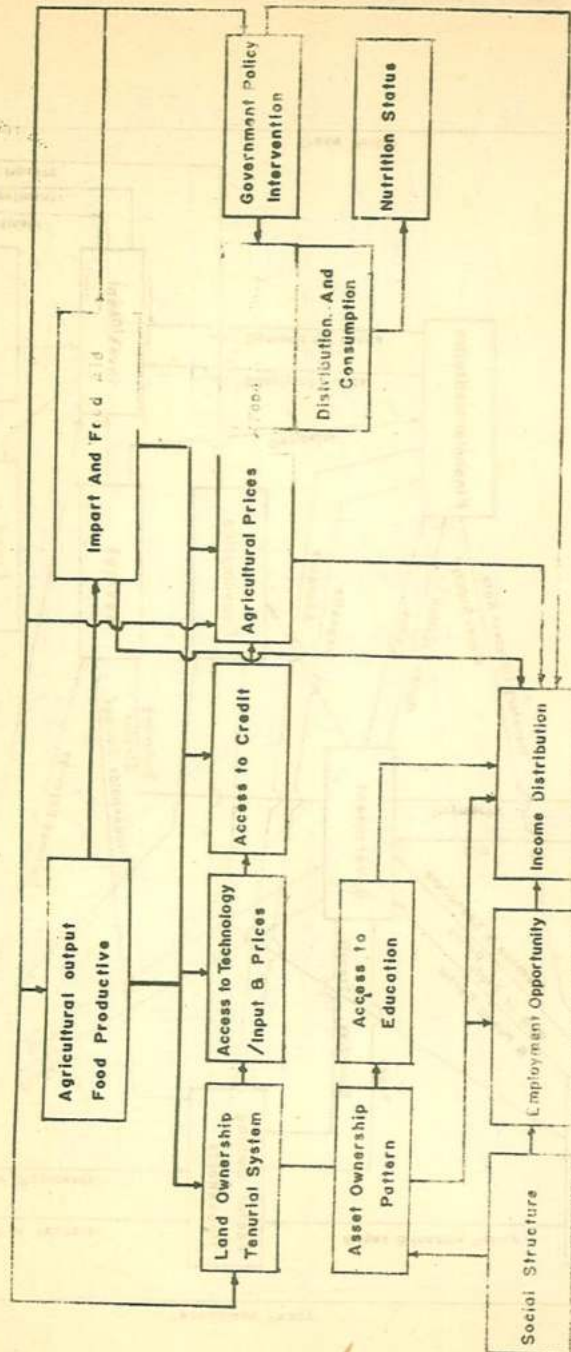


Figure-1: Determination of Investment

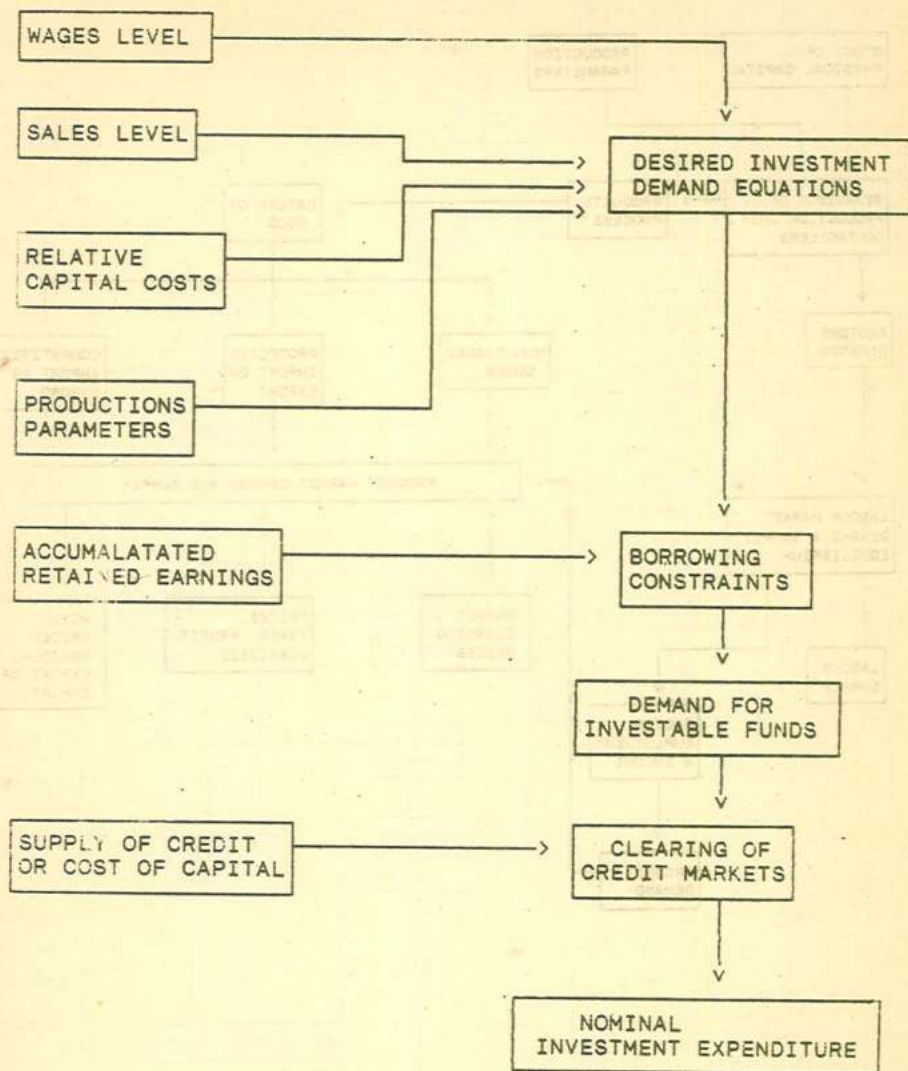


Figure-2: Determination of Factor Prices, Products Prices, Factor Employment and Profit.

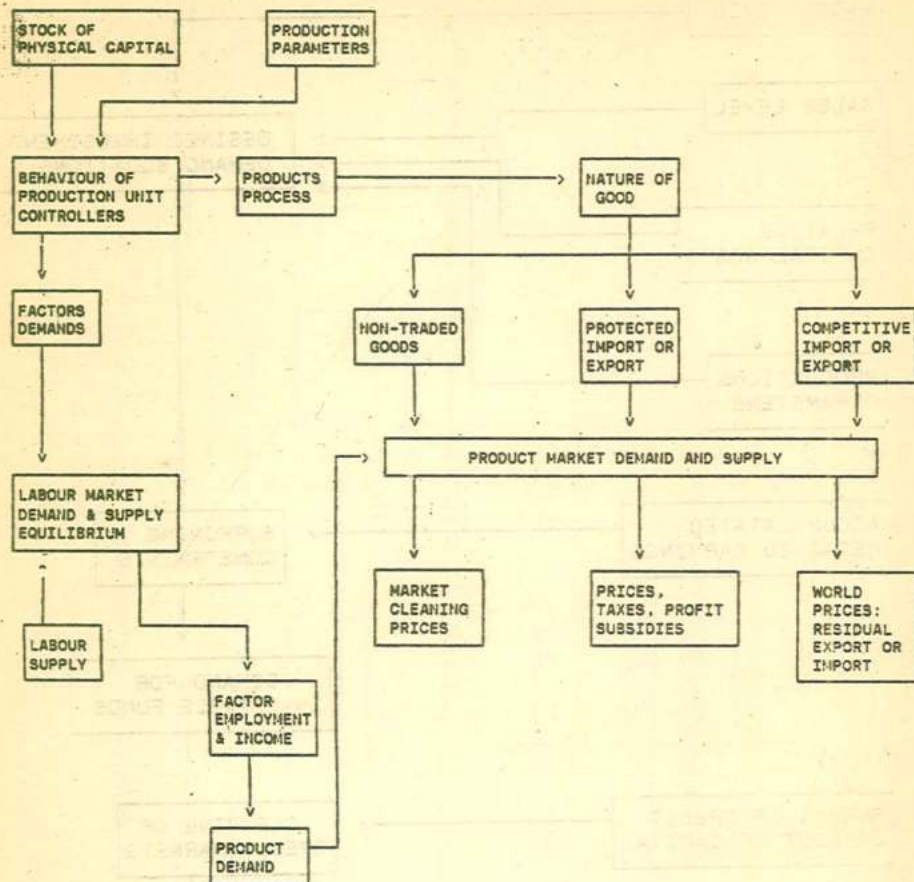


Figure-3: Demand for Products and Income Distribution

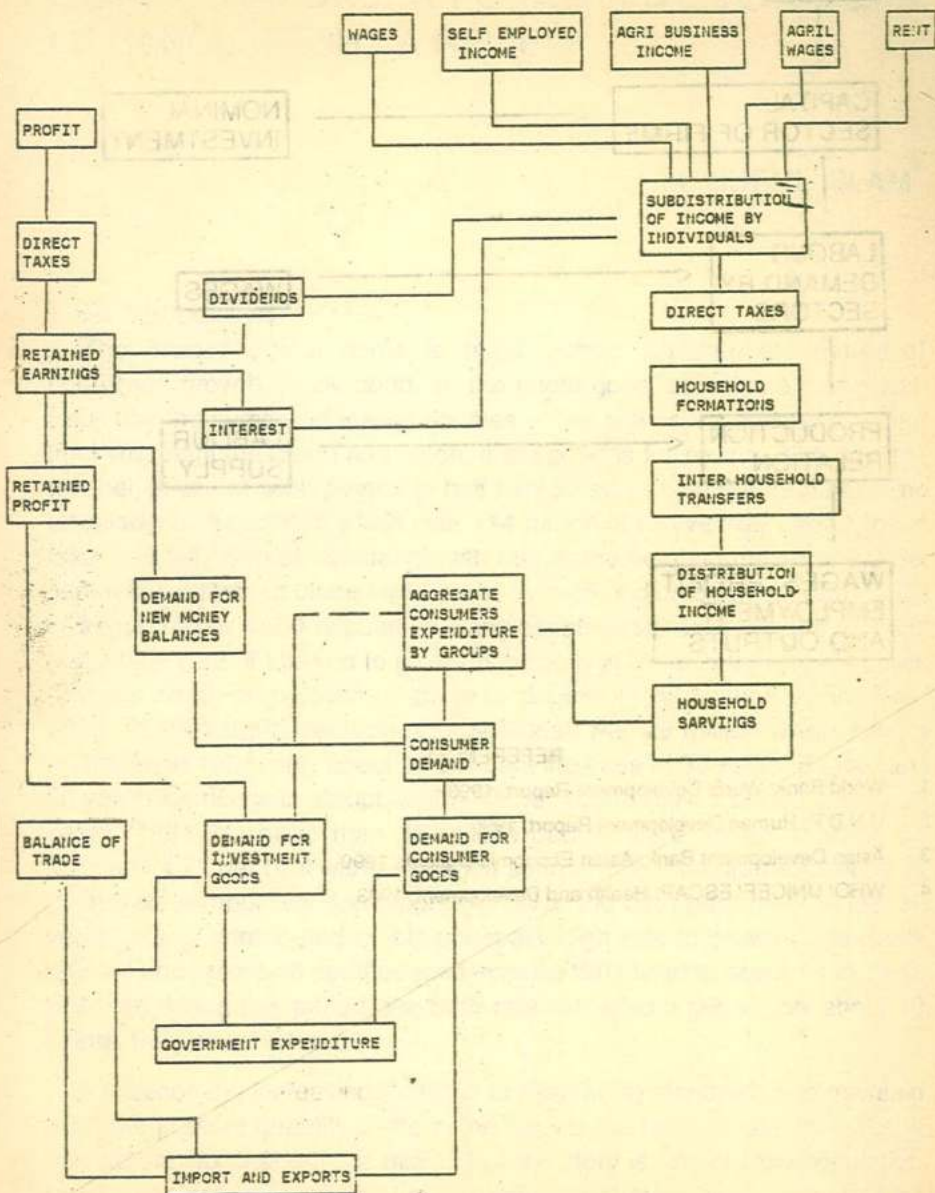
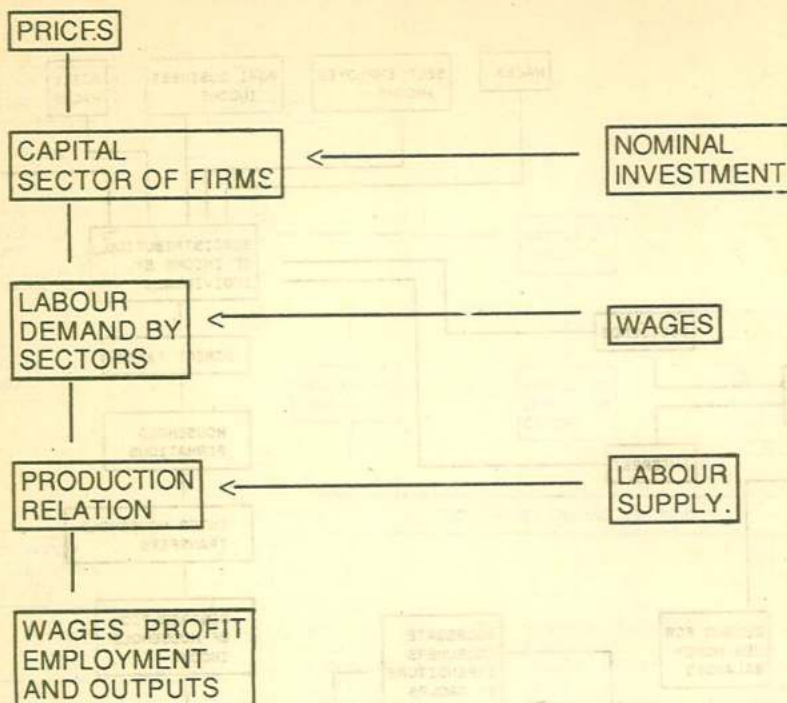


Figure-4: Factor Markets



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## POPULATION POLICY APPROACHES AND STRATEGIES UNDER FOURTH FIVE YEAR PLAN OF BANGLADESH : A REVIEW

M. NURUL ISLAM\*

### 1. INTRODUCTION

The French use a riddle to teach school children the nature of population growth. A lily pond, so the riddle goes, contains a single leaf. Each day the number of leaves doubles – two leaves the second day, four the third, eight the fourth and so on. If the pond is full on the 30th day" the teacher asks, "at what point it is half full? Answer, " on the 29th day. The Bangladesh lily pond in which over 114 million of us live may already be at least half full. With an annual growth rate in the neighbourhood of 2.2 per cent resulting from a crude birth rate of over 35 and crude death rate (CDR) of about 14 per 1000 population Bangladesh ranks eighth in the world in population size. If allowed to grow unchecked at the current rate of growth (2.2 per cent), Bangladesh is going to double its population by the year 2022. In 1901 the population of Bangladesh was 29 million which rose to 36 million in 1931, only about 24 per cent increase in 30 years. By the next 30 years the rise was abrupt, nearly 43 per cent. Within a period of only 20 years (1961-81) more than 36 million people were added implying an increase of 71 per cent within this short span of time. The dramatic fall of the death rate without any corresponding fall in the birth rate over the last 90 years largely contributed to this unusually high rate to growth. The death rate fell from about 46 per thousand from its 1901 level to about 14 in 1990, whereas during this period, the birth rate recorded a fall of only about 19 points: from about 54 to 35.

It is becoming increasingly difficult to raise living standards and maintain even the present quantity of life in the face of the huge annual increase in population. Up to about the mid 1920s the story is one of slow population growth against environmental and technological constraints, interrupted by large scale setbacks. After that, mortality receded more or less steadily, a

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\* Department of statistics, University of Dhaka.

decline halted only by the Bangal Famine of 1943, and the disturbance of partition [1]. As a result, the population growth accelerated sharply. In the 1930s for the first time it exceeded 1 per cent annually over a decade and recently it has reached the present level of 2.2 per cent. With high and constant fertility, Bangladesh is characterized by a high proportion of children: 44-46% of the total population are below age 15, the consequences of these higher proportions of young population resulted in a broad based pyramid tapering with age suggesting a high dependency ratio of about 100, low median age (19) and above all tremendous growth potentials.

Besides various distressing indicators of population dynamics there are numerous bleak socio-economic features. GNP per capita of the country is among the lowest in the developing world, its annual growth rate during the past two decades being merely 0.4 per cent [2]. More than 80 per cent of the population live in the rural areas, based largely on subsistence agriculture and absorbing more than 70 per cent of the labour force. A simple exercise on labour force projection shows that labour force increases from 23.2 million in 1975 to more than 48 million in 2000, more than 2 fold increase in 25 years. This amounts to an annual addition of about one million to the labour force. This new and constantly growing contingent of young people reaching working age and the rapid growth of the labour force are increasing tremendous pressure on the employment sector. With more than 50 per cent of the population as landless, 0.29 acre per capita land, one out of every 3 of the labour force unemployed or underemployed, 85 per cent of the population below poverty line, pervasive malnutrition and extremely low literacy rate, high infant and maternal mortality, the planned developmental goals of Bangladesh continue to remain a myth.

Despite its limitations one of the best available measures of economic progress towards developmental goals is the growth of per capita income. This is the growth of national income, adjusted for growth of population. Thus the relationship between growth of a nation's income and that of its population is fundamental to the improvement of human welfare. While neither the cause nor the effects in this relationship are fully understood, one central fact is clear that higher the rate of population growth the more difficult it is to raise per capita income. Realizing this serious consequences of the staggering growth of population, Bangladesh government is striving hard to achieve sustained social and economic development since its inception through various quinquennial plans and programmes.

## II. REVIEW OF PAST PERFORMANCE

While efforts to reduce population growth rate is still dwarfed by the magnitude of the problem, there has been a notable even dramatic increase over the last decade in both public and governmental interest and concern. Ambitious targets have been set from time to time with respect to population size, growth and attainment of replacement level fertility by certain time frames. As of mid 1976 the goal was to bring down the existing number of children born per women from 6.4 to replacement level fertility by 1986; and limiting the total population to 100 million by the year 2000, a figure already exceeded by 10 million. Attainment of NRR equal to 1 has been targeted twice more in the last two plans with new deadline. Shown in Table 1, a ten year time frame was set to achieve NRR unity in SFYP and a 15 year frame in the TFYP. Repeated failures are built in by setting unmet over ambitious and unrealistic targets vis-a-vis programme features which virtually amplifies helplessness of the current pre-occupation with a supply orientation and failure to tie that up effectively with demand [2].

As can be seen from the figures set out in Table 1, repeated shifting has been made not only for NRR alone, but for all other indices. The SFYP stipulated a growth rate of 1.8 in 1985 from 2.7 in 1980, a reduction of more than 33%, but the achievement was only a little more than 11%. The reduction in CBR was also of the same magnitude while the target was to achieve at least a 28% reduction in CBR. Likewise nearly 29% reduction in infant mortality was speculated while only a little more than 10% reduction was apparently achieved. The ambition was extremely high in CPR: 168% increase during the SFYP. The achievement in this regard was well below 50% of what was targeted (Table 2).

A close look into the figures presented in Table 2 further depicts that demographic and contraceptive targets were uniformly higher for the SFYP compared to the TFYP, but achievement was measurably poor and devastating. Except in one or two cases achievement rate in the TFYP remained well below the expectation. Table 3 presents an overview of the method specific performance in CYP during the TFYP. The family planning programme experienced a relatively low level of performance in contraceptive like sterilization and IUD during the pre-implementation year. In case of sterilization the shortfall was nearly 46% while for IUD it was 15% compared to that of the previous year (1984-85). Performance level, however was found to show upward trend for the subsequent years, but during 1987-88 and thereafter performance level declined considerably.

During the planned period injectable pills and condoms steadily maintained a high level of performance against the enhanced target levels.

As can be seen from Table 4, the base year figures used to set up the targets for the following plan periods are always found to lie almost in the estimated range. By and large this is true for all the 5 year plan periods. The aims were definitely ambitious and considerable progress was also noted in these directions, but unfortunately, all efforts measurably failed to attain the desired goal as envisaged. This failure has aroused considerable skepticism about the likelihood of attainment of any future target by the deadline set. What kind of population prospect can one expect in the above context? The present investigation addresses this question by examining the various demographic prospects set out in the Fourth Five Year Plan (FFYP) of Bangladesh.

Table-1 : The MCH-FP Objectives of Five Year Plans

| To reduce                      | SFYP (1980-85) |       | TFYP (1985-90) |       | FFYP (1990-95) |      |
|--------------------------------|----------------|-------|----------------|-------|----------------|------|
|                                | From           | To    | From           | To    | From           | To   |
| MMR<br>(Per 1000 live births)  | 7.0            | 4.0   | 6.0            | 4.0   | 5.7            | 4.5  |
| NNMR<br>(Per 1000 live births) | na             | na    | 85.0           | 65.0  | 80.0           | 60.0 |
| IMR<br>(Per 1000 live births)  | 140.0          | 100.0 | 125.0          | 100.0 | 110.0          | 80.0 |
| GR<br>(in Per cent)            | 2.7            | 1.8   | 2.4            | 1.8   | 2.16           | 1.81 |
| TFR<br>(Per Woman)             | 5.8            | 4.1   | 5.6            | 4.1   | 4.5            | 3.3  |
| CBR<br>(Per 1000 Pop.)         | 43.3           | 31.6  | 39             | 31    | 35.2           | 30.1 |
| CDR<br>(Per 1000 Pop.)         | 17.0           | 14.0  | 15.0           | 13.4  | 13.6           | 12.0 |
| <u>To increase</u>             |                |       |                |       |                |      |
| CPR<br>(in Per cent)           | 14.0           | 37.5  | 25.0           | 40.0  | 35.5           | 50.0 |
| <u>To achieve</u>              |                |       |                |       |                |      |
| NRR of 1 by year               |                | 2000  |                | 2000  |                | 2005 |

na : not available.

Table-2 : Demographic and Contraceptive Target and Apparent Achievement During Various Plan periods.

| SFYP ( 1980-85 ) |            | TFYP ( 1985-90 ) |            | FFYP ( 1990-95 ) |            |
|------------------|------------|------------------|------------|------------------|------------|
|                  | Target (%) | Ach (%)          | Target (%) | Ach (%)          | Target (%) |
| MMR              | 42.8       | 14.3             | 33.3       | 5.0              | 21.1       |
| NNMR             | —          | —                | 23.5       | 6.9              | 25.0       |
| IMR              | 28.5       | 10.7             | 20.0       | 12.0             | 27.3       |
| GR               | 33.3       | 11.1             | 25.0       | 10.0             | 16.2       |
| TFR              | 29.3       | 3.4              | 26.8       | 19.6             | 26.7       |
| CBR              | 27.0       | 10.0             | 20.5       | 9.7              | 14.5       |
| CDR              | 17.6       | 11.8             | 10.7       | 9.3              | 11.8       |
| CPR              | 168        | 78.6             | 60.0       | 42.0             | 40.8       |

Note: The per centage achievement for a particular plan period has been estimated from the assumed base figures of the following plan periods.

Table-3 : Method Specific Performance in CYP during Third Five Year Plan: 1984-85 to 1989-90.

| Methods       | 1984-85            | 1985-86            | 1986-87            | 1987-88            | 1988-89             | 1989-90            |
|---------------|--------------------|--------------------|--------------------|--------------------|---------------------|--------------------|
|               | Performed          | Performed          | Performed          | Performed          | Performed           | Performed          |
| Sterilization | 491599<br>(53.5)   | 267543<br>(58.8)   | 350560<br>(66.3)   | 196015<br>(35.6)   | 230973<br>(61.4)    | 182,041<br>(56.8)  |
| IUD           | 432463<br>(153.3)  | 367668<br>(173.4)  | 420338<br>(147.4)  | 379,128<br>(106.8) | 361698<br>(42.0)    | 270499<br>(39.4)   |
| Pill          | 770191<br>(43.5)   | 809114<br>(107.9)  | 1001534<br>(112.2) | 1273312<br>(123.4) | 1641320<br>(106.9)  | 1618513<br>(119.2) |
| Condom        | 1012,932<br>(79.5) | 906,054<br>(143.8) | 994,902<br>(137.2) | 1109746<br>(136.5) | 1213,174<br>(117.2) | 125304<br>(113.1)  |
| Injection     | 41,483<br>(29.2)   | 54,185<br>(86.0)   | 78,748<br>(88.5)   | 97,386<br>(81.8)   | 149,737<br>(29.5)   | 210,068<br>(46.4)  |
| Emko          | 17949<br>(12.7)    | 11,604<br>(2.2)    | 9,829<br>(1.8)     | 3696<br>(0.7)      | 2530<br>(0.5)       | 769<br>(0.3)       |
| Foam          | 21,481             | 20,836             | 23,088             | 25933              | 27,331              | 9969               |
| Tab           | (15.1)             | (3.9)              | (4.3)              | (5.1)              | (5.7)               | (3.3)              |
| Total CYP     | 2788100<br>(59.7)  | 2437,004<br>(76.7) | 2878,999<br>(80.2) | 3085,216<br>(79.3) | 3626,769<br>(68.8)  | 3315,563<br>(76.7) |

Note: The figures in the parentheses indicate the achievement in per centage.

Table-4 : Range of estimated demographic indicators for various base year periods from various sources.

| Indicator | Base Years          |                   |                     |
|-----------|---------------------|-------------------|---------------------|
|           | 1980                | 1985              | 1990                |
| CBR       | 34.6-45.5<br>(43.3) | 33.4-42.2<br>(39) | 35.0-40.0<br>(35.2) |
| CDR       | 10.2-18.1<br>(17)   | 12.0-17.0<br>(15) | 11.7-17.5<br>(13.6) |
| GR        | 2.3-3.0<br>(2.7)    | 2.3-2.7<br>(2.4)  | 2.2-2.5<br>(2.16)   |
| TFR       | 5.0-7.0<br>(5.8)    | 4.7-5.9<br>(5.6)  | 4.8-5.0<br>(4.5)    |
| IMR       | 122-140<br>(140)    | 112-130<br>(125)  | 120-135<br>(110)    |
| CPR       | 13-19<br>(14)       | 25.3-27.5<br>(25) | 31-39<br>(35.5)     |

Note: Figures in the parentheses represent the base year figures considered for setting up the target for the respective five year plans.

The range presented in the table for the indicators were taken from different sources which include both direct and indirect estimates, [2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13]

### III FOURTH FIVE YEAR PLAN OBJECTIVES

#### *Demographic and Contraceptive Targets*

Based on the review of earlier plans, targets and achievement, existing socio-economic background and demographic characteristic, the present plan aims at achieving several startling and amazing demographic goals through creation of a greater degree of public awareness of the seriousness of the population problem. The policy aims at attaining a demographic goal of NRR of 1 by the year 2005 AD. The projection of population indicates that even if the goal is attained, the population will stand at 137.3 million by the turn of the century.

The projection assumes an annual growth rate of 2.16. The CBR is proposed to fall from 35.2 in 1990 to 30.1 in 1995 and CDR of 13.6 in 1990 to 12.0 in 1995. The base year estimate of TFR of 4.5 has been preassumed to reach to 3.3 at the terminal year. Demographic change to this extent will require an increase in the of CPR from 35.5 per cent in 1990 to 50 per cent in 1995 (Table 1). In absolute term this means that the number of eligible couples using contraceptives will increase nearly 60% : from 7.3 million to 11.6 million.

#### IV POLICY APPROACHES, STRATEGIES AND PROGRAMMES

Realizing these serious consequences of population growth, the govt. has recongnized family planning as one of the vital interests which has been reflected in the princial policy approaches of the current FFYP. The policy approaches includes promoting and persuing population planning as an integral part of the total development process creating awarress to establish small family size norms through social movement and activating local committees for vigilance and monitoring program execution. The policy speaks of adopting multisectoral approaches with a view to meeting the unment demand, contraceptive cafeteria for distribution of contraceptives at nominal or free of cost. As a measure, the policy attaches importance on raising age at marriage. The policy approach was designed also to involve the community and local level institution to share the responsibility of reducing the level of fertility and thereby reducing the burden of the government.

The principal implementation strategies are to attain time bound demographic and MCH goals, strengthening MCH component of F.P programme for family welfare and child survival for creating environment conducive to small family norm, improvement of quality of services, strengthening IEM programme particularly contraceptive, educational and counselling, social and legal measures along with a system of incentive and disincentive in support of small family size norm, community mobilization for late marriage and acceptance of FP methods, enhancing status of women, involvement of voluntary and NGOs, reduction of dependency on foreign assistance, developing training modules for field functionaries to take care about contraceptive choices, streamlining funding mechanisms and finally to assess the impact of demographic impact of the programme rather than programme effort and input during the particular period, strengthening and augmenting research and evaluation capacities. The plans further aims at developing nationwide vital registration system and of proper utilization of data collected through MIS.

#### V PROSPECTS FOR ATTAINING THE GOALS IN THE FFYP

Needless to say that most of the policy approaches and implementation strategies as outlined in the present FYP were also seriously considered in the last TFYP, but there were considerable shortfalls in the achievement. One must now see where lies the wrong. It has become imperative to examine some of the vital concerns relating to adequacy of supply, problems of creating pertinent demand vis-a-vis service delivery, role of

NGOs before one hopes to reap benefit of the strategies set out in the FFYP. With this view in end, the present paper aims at examining the prospects of attaining the demographic objectives in FFYP with particular emphasis on the contraceptive prevalence required to achieve the demographic target.

*(a) Demographic Goals*

The achievement with respect to certain indicators such as CBR, growth rate, IMR, and NNMR were extremely poor in the TFYP. For example, the CBR was targeted to be reduced by more than 20% while only about 10% reduction was possibly achieved. MMR and NNMR were found to decline by 5% and 6% against the targeted figure of 35% and 24% respectively. As a consequence, the FFYP perhaps envisaged on the average lower target particularly with respect to these indices (Table 4). What about the plausibility of the base year values on which the target has been set? Based on the available estimates of fertility and mortality, it is felt that most of the estimates for the base period correspond to a high variant drastic type assumption. Review of the past experience of 3 five year plans points out that unless drastic measures are taken, it will be extremely difficult to fulfil the goal as envisaged. Infant mortality has been believed to be in the neighbourhood of 120 while it has been assumed to be 110 in the FFYP. Available estimates suggests that the current growth rate in no way is lower than 2.4%. The estimate of the targeted growth rate (1.81%) is considered to be a minimum. It is a target which can be attained only if considerable effort is applied to changing present attitude towards high fertility among people.

Following a summary measure as developed by Berelson considering several factors like adult literacy, school enrolment, life expectancy, infant mortality, non agricultural labour force, GNP, proportion single in 15-19 age groups, prospects for targeted reduction in fertility in the plan period is unlikely [14].

The arbitrary choice of NRR of 1 as a goal of fertility decline is based on the generally accepted view that population will have to stop growing sometime in future. The objective of achieving NRR of 1 by the year 2005 still appears to be unrealistic and an unlikely achievement. As substantially increased effort in family planning and any other reasonable measures that might be effective in curbing fertility may bring the goal within reach not before 2025. Review of some most successful programmes supports this contention.

*(b) Family Planning Goals.*

*Contraceptive Prevalence*

The plan targets a contraceptive use rate of 50 at the terminal year of the plan period from an assumed level of 35 in 1990 implying an average annual increase in the neighbourhood of 3 per centage point. The CPR figures registered a steady rise from 3.9 in 1969 to about 30 in 1989. A most recent study conducted records a CPR in the neighbourhood of 39 which still falls short of the target of TFYP [15]. This figure within a short time lag of only one year appears to be surprisingly high. This is clearly in disagreement with the past trend where the rise of CPR was only to the extent of 1.5 per centage point annually (1985-89). If there is reason to believe that this figure is not spurious and will continue to rise at the current rate, then assumption of a CPR of 35.5 is not very unrealistic and it may not be very difficult to achieve a CPR of 50 at the end of the plan period. Nevertheless, the assumed course of CPR during the plan period in a linear path is unrealistic and the possibility of maintaining the recent effort of raising CPR is remote.

The projected target of total users as planned in the FFYP is 11.6 million in 1994-95 from 7.3 million in 1989-90, an absolute increase of 4.3 million or a rise of about 59% in actual size of the acceptors for a 5 year period. In contrast CPSs of 1985 and 1989 indicate a rise of 24 per cent or an absolute increase of 1.3 million in 1989 [16]. In the light of the above observation, and past experience it is virtually certain that the plan objectives of the FFYP will not be materialize.

**CONTRACEPTIVE DEMAND**

Although there exists considerable unmet demand of contraceptives ranging from 19 to 30 per cent [17], the FFYP emphasizes on further demand creation measures. Efforts are outlined to strengthen outreach services; but quality of services, reporting and supervision management support are poor. Services are still supply oriented and have not reached a level to create additional demand [18]. Also supply side is constrained by a variety of reasons. Our observation suggests that the "unmet" demand is often rather fragile and there is a need to crystalize such demand and transform into effective demand in economic sense, not only in normative but also in behavioural terms.

Manipulation of demand variable, would some times require major structural changes building-in institutionally and legally backed incentives and disincentives relating to the adherence to the small family norm [2]. In

the process of planned social change in general and transformation of the fertility norms and behaviour in particular in a traditional society like Bangladesh what should be the limits of persuasion beyond which certain measures—incentives as well as disincentives would be branded as pressurizing, compulsive and coercive? The underlying issues are complex and sensitive and needs thorough examination.

The population policy beyond doubts antinatalist and has always been backed by official effort, but it is rather unfortunate to note that valuable recommendations have been stalled for years together. A close examination of the last three FY plans shows that programme elements envisaged before have exactly been shifted from first to the second, from second to the third and now appears as an off-print in the fourth plan. Should we still hope that this can be implemented? If we derive lesson from the past, the answer is possibly "no".

#### CONTRACEPTIVE MIX

A good contraceptive must be reliable, effective and simple to use. It should not interfere with sex activity or be harmful to either partner and should not affect fertility unless used as a terminal method. Finally it must be inexpensive and easily supplied to a large number of people. The methods chosen must therefore be a matter of compromise and personal preference. It is therefore important to make available in the programme a good mix of a large number of modern and safe methods. Promotion of less effective methods should be carefully assessed. The FFYP relies heavily on the modern methods as instrumental to fertility reduction. The traditional methods are planned to phase out gradually from the programme.

The FFYP plan attaches considerable expansion of IUD and injectables programme. It assumes that IUD acceptors will rise from 7.6% in 1990 to 18% in 1995 or in absolute terms 550,000 to 700,000. Injectables is assumed to rise from 5.2% to 14% or in absolute figures 38,000 to 1,620,000 during the plan period. These per centage increases seem to be unattainable when one compare the trends observed in the last 5 CPS findings.

The plan considers to shift the people's reliance from sterilization to reversible methods particularly to IUD and injectables. This is reflected from an assumed decline of 36% of sterilization acceptors in 1989-90 to 33% in 1994-95, although by this time the number of acceptors will increase from 2.63 million to 3.80 million: a rise of about 47% in absolute size. Studies have shown that proportion of sterilization acceptors was higher among

higher parity women and women with larger number of living children. In addition, sterilization usually attracts people who view the nominal financial incentive to cater their immediate need and usually these people do come from lower socio-economic strata. In this context, the desired target will have little demographic impact. The plan also aimed at shift in the mix of contraceptive use from 10% to 13.5% for condom but a decrease in the oral pill users from 26% to 20% in 1990. It may not be very difficult to achieve this goal if planners derive lesson from the past.

The main thrust of the programme on contraceptives is to rely heavily on IUD and injectables with an aim to shift the contraceptive method mix and plan to phase out the use of traditional methods. In the present context and recent trend, the prospect for attaining the goal for IUD and injectable is not very bright. These figures have been over estimated in the beginning of the plan period. On the other hand the recent studies point out that the traditional method users constitute at least 25% of the total users. In this respect, the plan shows this figure to the extent of 15%. Even if this is the situation, available evidence shows that it will be simply impossible to eliminate this group in foreseeable future in a traditional society like Bangladesh. Indeed considerable socio-economic development and innovative approaches towards birth limitations would be needed before any major transformation in the above respect could be expected to take place.

We cannot deny that there are various administrative and organizational difficulties that beset governments in launching the proposed programme. No matter how earnest the political commitment is, a family planning programme can not be effective unless there is an organizational structure capable of bringing the available technology to those who make use of it. FP programmes are inherently difficult to administer since they must maintain continuing contact with married couples over a long period.

The difficulty is increased when services must be carried to a widely dispersed and illiterate people. There is handicap of limited administrative experience on the part of many persons in the medical and social service professions who are responsible for administering family planning programme. Involvement of NGOs in the programme is a matter of debate.

Cultural and religious objections to family planning are still serious. Introduction of population education into school curricula must be carefully tailored to allow for cultural sensitivities, religious beliefs and after suitable testing and training of teachers. The education and information

components are vital parts of any well-conceived family planning programme. This must be directed mainly to the next generation of potential acceptors. Inadequate evaluation machinery is a serious constraint which limits assessment of a programme effectiveness in reducing fertility, the ultimate test of its success.

#### VI POPULATION PROJECTION AND FFYP TARGETS

It is perhaps imperative to throw some light on population projection considered in the present FYP for setting up the target. This projection has important bearing on the success of the plan. The projection of the population is based on the mortality level that is believed to be in the lower end of the range which will ultimately make the projection a class room exercise rather than reflecting the reality. Total fertility has been assumed to be low and is shown to traverse completely in a straight line over the plan period and perhaps thereafter. There is no denying the fact that this is the usual procedure which is generally followed in projecting a population, but fertility has never been found to recede linearly, neither in aggregate nor in age groups. Thus an alternative path must be evolved in scheduling the future course of fertility particularly in the context of our country. The assumed TFR for the terminal year is no doubt arbitrary and as a consequence of this, achievement of NRR of 1 in the year 2005 remains also arbitrary. This arbitrariness is expected to disappoint again the planners in which case, further stalling of the achievement year of the demographic goals would be inevitable. This would imply repetition of all policies, strategies, programmes and revising demographic and contraceptive use targets for the next plan as was the case in the past. In this context I would suggest that in scheduling the TFR and ASFRs, the recent parity distribution of women which reflects the tempo of fertility may be considered. The excess fertility will be defined in terms of the order of the birth to be avoided during the projection period. To decide on the cut-off points of the excess fertility, past and present level of fertility, socio-economic and demographic behaviour of the population, experience of recent fertility surveys behavioural and biological variables must be examined. To accommodate the fact that fertility does not drop linearly the fertility for the intervening years may then be interpolated by what is known as reverse geometric interpolation. This attempt is expected to produce more realistic course of future level of fertility. It is worth to mention here that the Planning Commission has assumed a model in the projection which includes a number of programme variables [19]. This is a creditable venture and is deviation from the conventional type of projection, but

limitations of the model in the developing societies is well documented in literatures.

Once a realistic assumption of fertility is made it is a simple exercise to estimate the level of contraception needed to achieve the desired fertility level by widely used Bongaarts model. It is worth mentioning here that with the constant level of average use effectiveness which is estimated to be in the neighbourhood of 0.87, the CPR required to achieve the targeted TFR is well attainable (54.4%). If use effectiveness increases to 90% the CPR required will be 52.6%. The assumed CPR of 35.5 in the base year corresponds to a TRR of 4.8 following an empirical model [20] in which case, the TFR in the terminal year would reach 3.7 instead of 2.3 to correspond to match the CPR figure of 50 in 1994-95. The use of the model, as indicated earlier remains still as a matter of debate in our society.

#### VII CONCLUDING REMARKS

Review of last 3 Five Year Plan performance indicates that the demographic objectives set forth in the FFYP, may be very difficult to realize unless serious efforts are made to influence the key variables that accelerate the fertility decline.

Although the desired target for CPR does not seem to be very optimistic in the present context, but realisation of this target may be a difficult task unless policy strategy and measures as outlined in the planned period are strictly followed. Any slackness of the programme effort like number of visits, sessions, personnel time, materials expenditure method of storing, distribution of contraceptives may beset the whole programme in which case attainment of demographic and contraceptive goal will be a far off cry.

In spite of governments serious and sustained commitment and various suggested transformations in the programme, there is little to believe that current rate of growth will fall fast enough to relieve the pressure arising from the need to use significant and rising proportions of resources simply to maintain the average standard of living of growing number leaving less for further development. Serious administrative and organizational difficulties, lack of complementarity and mutual support, apathy among the cadres are making the programme ineffective, a result of which has been the measurable failure of all the past programmes.

The present level of maternal, neonatal and infant mortality are believed to be higher than what was documented in the plan. Past experience again will depict that desired reduction of these rates may be hard to achieve if

the efforts run parallel to the previous plan periods. There exists much debate as to whether the present number of acceptors can be increased primarily through the extension of services whether much intensive IEC and FP education would be more productive or whether much larger numbers of acceptors can be recruited only after socio-economic changes have taken place. Both research and further experience are needed to throw light on this fundamental question. Nevertheless, it seems clear that government will have to continue to give equal attention to both supply and demand side of the problem.

The programme achievement must be evaluated on a regular basis and an adequate information system should be given due importance. The action in this respect would give structure and level of demand, provide guidance for determining priorities of programme efforts among areas and population groups, information on the effect of varying the level and mix of various programme inputs and will suggest on reducing fertility to provide a measure effectiveness. Finally it is recommended that the Planning Commission should revise the draft document in the light of the discussions made here to make their plan more realistic to attain the desired goal.

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## **WOMEN IN DEVELOPMENT IN BANGLADESH : ROLE OF DONORS AND NON-GOVERNMENTAL ORGANIZATIONS**

**NILUFAR AHMAD**

### **1. INTRODUCTION**

The crisis in the world economic system in the 1970s had adversely affected Bangladesh and other developing countries and few have been able to exercise economic self-reliance. Growing economic pressures as well as interests of the dominant groups have made Bangladesh heavily dependent on foreign aid and loan resources for financing the development expenditure.

Women have begun to be noticed as target group for development by donors only in the last decade. This approach could be the result of the "Women's Decade" (1975-85), which had a beneficial impact at the policy level. This paper tries to identify donor and non-governmental organization (NGO) priorities for women's development and their impact by reviewing the policies, strategies and activities implemented by the major donors and NGOs, involved in assisting the development process in Bangladesh.

To make this assessment, questionnaires were sent to 11 bilateral donors, 8 multilateral agencies and 12 NGOs (Annex A). Responses were received from 21 of the recipients. To fill the gaps in the information received, personal interviews were conducted with some of the respondents and non-respondents. Added to the usual difficulties of posted questionnaire, the responses often were not very specific. Besides, it appears that the respondents had difficulties in identifying the proportion of their field budget that was exclusively directed to women's programmes. In addition, there was not much clarity in identifying female population covered by integrated activities i.e., the number of women who directly or indirectly benefiting from these programmes. The majority of the projects mentioned (except the NGO projects) have not been evaluated, hence the overall impact on population, especially on women could not be specifically ascertained.

### **2. POLICIES AND STRATEGIES OF MAJOR BILATERAL DONORS AND MULTILATERAL AGENCIES**

The public financial aid given by bilateral donors and multilateral agencies is a process of transferring resources from developed to developing countries, to contribute to more employment, greater equality and general improvement of economic welfare [17]. The stated objective of

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development assistance is to assist Bangladesh to achieve sustainable economic and social progress and alleviate poverty [9].

It is apparent from the stated policies of donors that they want to focus on women as a target group for development [9]. As indicated by the Nairobi Declaration of 1985, Forward Looking Strategies (FLS) for the Advancement of Women, the principal aim of current policy of women in Development (WID) is to bring about a structural improvement in the economic, social and overall position of women in developing countries by promoting their active involvement in the development process, by offering them the opportunities and means to influence the changes taking place in society [25]. In terms of implementation, this means that efforts will be made to increase women's economic independence, social participation and self-reliance.

This principal aim can be broken down into the following objectives:

- a. to improve access to and control over production factors (land, capital/credit, labour), services and infrastructures facilities (water, energy, health care, nutrition, education, training, technology, organization, information, etc.);
- b. to reduce the work load of women by introducing labour saving technologies;
- c. to increase involvement of women in decision making at domestic, local and national levels;
- d. to encourage the exchange of information and communication between women's groups and change the stereotypical image of women; and
- e. to improve women's knowledge and self-awareness (through education and training) [18].

The donors follow certain strategies to implement their stated policies. Their strategies can be summarised as focusing on:

- a. poverty alleviation,
- b. increased participation of women,
- c. income generation with priority to assetless women,
- d. population control by reducing fertility and improving family health,
- e. leadership development and group efforts among women at the grassroots level [21].

### **3. GOVERNMENT OF BANGLADESH AND DONOR ALLOCATION TOWARDS WOMEN'S PROJECTS**

To translate their objectives into reality, the donors offer considerable financial assistance to the Government of Bangladesh (GOB) and NGO's. Most of the foreign aid given to GOB is used in Agricultural and Industries Sector [26]. These are mostly integrated projects, and there is no specific women's component in any of these. Women derive benefits indirectly, only as a part of society.

In the Draft Fourth Five Year Plan (FFYP) and Third Five Year Plan (TFYP) of Bangladesh one of the policies was to integrate women at all levels of the economy. However, when one considers the budget allocation to development projects for women, it seems that policies are not being properly translated into any meaningful plan of action nor is implemented to achieve the stated GOB objectives.

In the FFYP sectoral allocation primary emphasis is on agriculture and irrigation (27 per cent), energy and natural resources (21 per cent), and transport and communication (17 per cent). Among the social development sectors, Health gets 2.6 per cent of total public sector allocation, Education gets 6 per cent ( of which 50 per cent is for primary education), social welfare gets 0.3 per cent, women's affairs gets 0.2 per cent, and population and family planning gets 4 per cent. Given the heavy dependence on foreign aid and loans for development financing, the above allocations also provide a reasonably good picture of how aid is divided.

Although the majority of donors philosophically support strengthening women's productive activities, most of their funds for women's development is contributed towards population control and family planning (Annex B). A recent study shows that donors provided only 19 per cent of their allocations for women's projects between 1980-86, of which highest priority was given to population control (55 per cent) whereas 26 per cent was allocated to self-help income generating programmes 8 per cent to education and only 2 per cent to health (Table 5.1). This allocation to supposedly 'women's projects is again deceptive as the bulk of the population control fund (80 per cent) is allotted for building infrastructure, 95 per cent of education fund is for primary education which would benefit both male and female children. Allocation to other sectors such as self-help, public works, employment generation, health, training projects can contain both men and women beneficiaries.

Bangladesh is a small country with limited resources, rapid growth of population is a problem. But poverty here is not caused purely by pressure on resources brought about by a growing population. It stems from and is perpetuated by an unequal access to resources, which in turn limits the capacity of poor people to improve their livelihood [21]. Also, high fertility rate of women depends on various factors such as illiteracy, ignorance, poverty, high child mortality and security for old age. Where women have a few or no alternatives to a source of income generation other than their male kin, they have a strong incentive to reproduce since children, particularly sons, are the only means of risk aversion and of spreading consumption over time. Thus economic dependence of women on men

appears to be a significant element in the determination of high fertility in Bangladesh [5]. Quite a few studies have shown a negative relationship between women's participation in gainful employment and fertility. One study on Food-for-work Project has found 26 per cent of eligible project participants practicing contraceptive as against 13 per cent for overall Bangladesh [15]. Another study has found that among women who are illiterate or who have limited formal education, a working women has fewer children than a women who is not gainfully employed outside her home. But with higher education, women have fewer children irrespective of whether they work outside their home or not [7].

Therefore, increasing the budget for family planning alone will not reduce fertility rate in Bangladesh. A large portion of aid fund as used to try to control women's reproductive power and fertility. On the contrary, more emphasis should be put on increasing women's productive power and more funds should be made available for projects aimed at increasing women's income earning opportunities and for education/skills/training. This will have a depressing effect on fertility and hence population growth.

In Bangladesh, as in other third world countries, in the 1970s and early 1980s, women's development as advocated by the donors largely as a means to achieve population control-education, skills, training, jobs, credit, should be made available to women so that their fertility would be reduced. Three major programmes were launched by the GOB under the auspices of the World Bank to that effect, namely Women's Vocational Training Project, Rural Mother's Clubs and Women's Cooperatives. In these programmes, women who accepted the use of contraceptives could have access to credit and other benefits, while non-acceptors were excluded. Any credit for men has never been subjected to such condition [2].

Development of women should be a policy by itself. It should not be used as a means to achieve other objectives. Unfortunately looking at the budget allocation of GOB or foreign donors to development projects, it is apparent that women are addressed primarily within the context of family and family reproduction i.e. maternal and child health (MCH), nutrition, family planning (FP), immunization and sanitation services. It seems that development planning efforts still fail to recognize fully women's actual and potential contribution to the development process or the effect of the development process on them [19]. Women are fifty per cent of the population, yet their neglect in development planning has left untapped a potentially large economic contribution. Both economic growth and social justice call for increased attention to the enhanced participation of women in the development process. Also as women are lagging far behind men in all areas, special attention has to be focused on them.

#### 4. POLICIES AND STRATEGIES OF MAJOR NGOS AND OTHER AGENCIES

The majority of the NGOs started after 1971 as relief and rehabilitation organizations. Later, they moved into family planning, health and finally into development activities especially women's programmes. The typical example is BRAC, one of the largest NGOs in Bangladesh, started in early 1972 as a relief organization in Sylhet. Today it has grown into a multifaceted development organization working in about 2325 villages. BRAC's stated objective is the social and economic advancement and self-reliance of landless and destitute people. Its basic strategy is to form male and female groups in each village, assist them with functional education and awareness-raising activities, provide training, leadership, management and income generation skills, and provide or assist them in obtaining other tools necessary for self-sufficiency i.e. credit and other infrastructural support [3].

The NGOs, which were involved in women's development at the beginning (1972-74), tried to identify the income generating activities in which women were already involved outside their household functions as well as skills they have attained—these are mostly rice husking, handicrafts, weaving, sewing, homestead gardening, livestock/poultry raising, etc. The needy women were put into activities where there was no competition from men and those activities generated some income (management, marketing trading, training, counseling, group formation, credit formation almost always were in hands of skilled NGO workers) [10].

A study shows that, project for rural women involve them in activities geared mostly to secondary and tertiary sectors—of 558 non-formal training projects undertaken by 214 government of Bangladesh and NGOs agencies, 89 per cent were handicraft projects [16]. It was thought that, once women were working at a job outside home and earning a salary, getting necessary education, training, skills and experience, it would be easier for them to get into the mainstream job market later on. But government figure show that after 15-16 years (in 1988-89), women are still in the same type of jobs, earning the same low salary and not yet in the mainstream job market [1, 27].

Individual NGOs differ very much in orientation towards women, which ranges from welfare approach targeting women mainly as wives and mothers and to a more economic development approach targeting women mainly as subsistence producers. Much training is offered with little consideration of their applicability in terms of individual or local needs. A study conducted of 214 women's NGOs in Bangladesh in 1981 revealed that more than half of their trained persons did not derive any income [14]. Often there is no policy either to provide the much needed support and follow-up services like credit, marketing, access to raw material etc. Only a

few NGOs and the Grameen Bank have developed programmes which focus on the needs of poor rural women, encouraging both economic activities for women and awareness raising by group formation, organization, education and follow-up services.

Some NGO's (also donors who fund them) are still following similar policies and strategies of early 1970s, which is consolidating the stereotyped roles of women in the development process. It is apparent that objectives and strategies of some donors and NGOs are ill-defined and no targets are set for people to work towards and many projects have become failures. But with definite objectives and strategies, Grameen Bank and BRAC are running highly successful programmes.

The NGOs can be a great help to the GOB as they represent an important potential and play an active part in most sectors relevant to development. Some NGOs showed remarkable success in mobilizing target groups, identifying problems and developing strategies to overcome these problems. GOB can utilize NGO experiences and strategies in their own projects or can use NGOs to complement their own activities. Both Grameen Bank and BRAC, coordinate their activities with GOB, both run highly successful programmes having potential to be self-sustaining. Different studies have shown that a positive relationship between government and NGOs can create a successful development process [24, 22]. One study has found that the relationship between NGOs and Governments of India and Sri Lanka is one of cooperation and the existing open political system there helped to create and sustain this positive relationship. Hence it can be said that under favourable political system cooperation and collaboration between NGO and GOB could create and sustain a successful development process.

Between 1971 to 1987, Bangladesh has received about US\$ 16 billion in foreign aid, which was disbursed as 40 per cent project aid, 37 per cent commodity aid and 24 per cent food aid [26]. As the major part of Bangladesh development budget (80 per cent) comes from foreign donors, they could influence the policies of GOB considerably through aid negotiations. They could, if they so chose put more emphasis on projects which would benefit women directly, enhance their participation in the development process and bring about a parity between men and women in all sectors. By providing funds, commodities, equipments to rural women through GOB sponsored programmes, the donors could influence the GOB to mobilise the untapped resources of women and include their activities into commercial production, the GOB has to be involved directly in the women's development sector. Most donors consider some NGOs as a better channel for development assistance to women due to their flexibility

and good monitoring system (17 per cent of women's fund goes to NGOs see Table 5.1) But as the NGOs operate in only about 30 per cent of villages in Bangladesh, it would be difficult to reach a large number of women through NGOs. However, their activities could act as a supplement to that of GOB. GOB and NGOs should be partners in development activities, cooperation and collaboration between them could create and sustain a successful development process. History has shown us that in Third World countries with good performance on income distribution, government policies and programmes have played a key role [24]. GOB has the most powerful impact on its economy. For women's enhanced role in the development process, it has to be directly involved and the donors must work both with GOB and the NGOs if they want to achieve their stated objectives.

#### 5. TYPES OF PROJECTS

Projects are one of the primary vehicle used by governments and international agencies to channel resources in the development process. Various types of projects are implemented by GOB, bilateral donors, multilateral agencies and NGOs. The major development projects directed towards women in Bangladesh can be categorized broadly as:

- a. Family planning/population control
- b. Grassroot self-help projects/income generation
- c. Education
- d. Training
- e. Public Works
- f. Health
- g. Employment generation in private sector
- h. Agriculture
- i. Research.

The difference between all these categories is not always distinct as the major components i.e. income generation activities, motivation, group formation are common for most of the development projects. The categories are chosen by the primary focus or objectives of the projects, not by their activity components.

Some of major women projects of Government of Bangladesh and NGOs are discussed below:

- a. *Family Planning Projects*: This type of projects received the largest amount of fund from donors, most of the fund was disbursed through GOB. About one-third of the projects include some self-help elements, others mostly deal with family planning:

*Ahmad : Women in Development*

*b. Self-help Projects:* The main component of this type of projects is income generating activity, it may also include other elements such as group formation, savings, credit, loan funds, skill development, training education, health, nutrition, hygiene, family planning etc. Self-help projects are designed to reach people at grass-root level.

*c. Education and Literacy Projects:* The major components of this projects are adult literacy, non-formal children education, secondary school scholarship for girls, curriculum development and teacher training, mosque education etc.

*d. Training Projects:* The primary component is to train women in different spheres—health workers, nurses, teachers, management in the government and private enterprises in Bangladesh. The largest number of trainings were imparted the health and family planning area.

*e. Rural Public Works:* All projects under this use food aid. The major component is to employ destitute women in public works such as road maintenance, construction of irrigation facilities, earth moving etc.

*f. Health Projects:* The major emphasis of these projects are health education, maternal and child health, immunization, oral rehydration therapy, training, sanitation, hygiene and primary health care.

*g. Employment Generation in Private Sector:* The major components of this project are to provide employment and marketing services, support small industry projects which employ women.

*h. Agricultural Projects:* The primary focus of this projects are homestead gardening of fruit and vegetable and livestock raising. Other minor components are small amount of savings and credit programmes, access to improved seeds, varieties of chickens and ducks and vaccination programme for poultry.

*i. Research Projects:* The major component of this project is research on women mostly to deal with social, economic, health and education issues.

Total project aid to Bangladesh to given by foreign donors during 1980-86 was approximately US \$ 4.4 billion, among which about US \$ 844 million (19 per cent) was allocated to development projects benefiting women directly or indirectly [26; 23]. The following Table 5.1 shows that 83 per cent fund was allocated to GOB projects and 17 per cent to NGOs. Family

Planning Projects received about 55 per cent of total allocation, of which 92 per cent was disbursed through GOB projects. Self-help income generating projects received 26 per cent of the funds of which 74 per cent went to GOB, 8 per cent was allocated to education (95 per cent to GOB) 4 per cent to training and only 1.5 per cent to health projects. Research projects received the lowest amount (0.1 per cent) of which 68 per cent was allocated to NGOs.

Table-5.1: Donors Project Fund Allocated to Sectors Directed Towards Women (1980-1986)

| Project                  | (Amount in '000' us\$) |          |        |          |        |          |
|--------------------------|------------------------|----------|--------|----------|--------|----------|
|                          | GOB                    |          | NGO    |          | Total  |          |
|                          | Amount                 | Per cent | Amount | Per cent | Amount | Per cent |
| a. Family Planning       | 429572                 | 92       | 37968  | 8        | 467540 | 55.3     |
| b. Self-help             | 160937                 | 74       | 57382  | 26       | 218319 | 25.7     |
| c. Education             | 62312                  | 95       | 3617   | 5        | 65929  | 7.8      |
| d. Training              | 34469                  | 89       | 4470   | 11       | 38939  | 4.6      |
| e. Public works          | 9033                   | 30       | 20943  | 70       | 29976  | 3.5      |
| f. Health                | 2952                   | 22       | 10334  | 78       | 13286  | 1.5      |
| g. Employment Generation | —                      | —        | 7107   | 100      | 7107   | 0.8      |
| h. Agriculture           | 768                    | 31       | 1710   | 69       | 2478   | 0.2      |
| i. Research & Misc       | 402                    | 32       | 951    | 68       | 1253   | 0.1      |
| Total                    | 700445                 | 82.9     | 144382 | 17.1     | 844827 | 100.0    |

Source: Compiled from [ 23 ].

Thus, it can be observed (Table 1 and Annex B, Tables 1-2) that most of the women's development project fund is allocated to welfare sector i.e. population control, whereas more fund should be made available to human development sectors such as education, skill development, training and productive sectors i.e. agriculture, small industry, employment generation, self-help etc. More funds need to be provided for income generating activities that are self-sustaining so that women would be earning an income even if the projects are eventually phased out. Finally, as discussed in the previous section, one should be cautious as this focus on "Projects" instead of on processes, institutions and policies can inhibit rather than promote development if not managed appropriately [19].

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The following Tables 5.2 and 5.3 describe some of the major GOB, NGO and other agency projects, giving the type, name major components, targets, and the number of women beneficiaries.

Table-5.2: GOB Projects

| Projects             | Name                                       | Major components   | Target                             | Number of women beneficiaries   |
|----------------------|--|--|------------------------------------|---|
| Self-help            | RD-11<br>Fund: IDA, CIDA                   | Group mobilization and management, credit, training, technical assistance action research management | Landless farmer and women          | 35700 women   |
|                      | VGD<br>Fund: WFP                           | Education (functional & health) savings credit, skill development training                           | Destitute women in all 4400 unions | 455,000 women (development impact was seen in only about 20 per cent VGD women) |
| Family Planning      | Population II/III<br>Fund: IDA, CIDA, SIDA | FP/MCH services, Women's Groups (BRDB, Mothers Club), infrastructure                                 | National                           | N.A.  |
| Education & Literacy | Primary education I / II<br>Fund: IDA      | Teacher training, curriculum development   | National                           | N.A.  |
| Agriculture          | DAE<br>Fund: UNICEF                        | Training, homestead farming  | Rural women                        | 90,000 families   |
| Public Works         | Food for work<br>Fund: USAID               | Income generating activity   | Landless women                     | 2 per cent of all workers are women   |
| Training             | Women's Training<br>Fund: USAID UNICEF     | Management skills  | Female Manager                     | N.A.  |

Table-5.3: NGO and Other Agency Projects

| Services | Project                         | Major components  | Target      | Number of women beneficiaries |
|----------|---------------------------------|---|-------------|-------------------------------|
| BRAC     | Rural Development Programme RDP | Group organisation, functional education, savings, training credit, income generation, health, Tk. 73 m credit to women | Landless    | 90843 (54 per cent of total)  |
|          | OTEP                            | ORS training  | National    | N.A.                          |
|          | Non-formal education            | Schools for older children  | 100 schools | N.A.                          |
|          | Handicraft marketing            | Marketing of handicrafts produced in RDP  | Landless    | 2700 producers                |

[ Table-5.3 Continued ]

|                                      |  |   |                            |                             |
|--------------------------------------|--|---|----------------------------|-----------------------------|
| CARE                                 | Womens Development project                   | MCH/FP, group formation, training, literacy, IGA  | 225 villages               | N.A.                        |
|                                      | Rural Maintenance Programme                  | IGA for rural women by maintaining rural road   | Landless women             | 61,500 women                |
|                                      | Local Initiation for Farmers Training (LIFT) | Training on agri, techniques credit, marketing, homestead, agriculture  | Marginal & landless farmer | N.A.                        |
| Grameen Bank                         | Rural Credit Programme                       | Group formation, credit, savings, literacy, IGA, during 1979-88, Tk. 2015 m credit to women   | Rural poor specially women | 346,000 women (84 per cent) |
| Proshika                             | Self-help                                    | Group formation, conscientization savings/credit, IGA, human development, of Tk. 19 m, 24 per cent of fund went to women's groups   | Rural poor men and women   | 10,640 women (29 per cent)  |
| Swanirvar Bangladesh women's project | Landless                                     | 1985-90 budget is Tk. 80 million, 35 per cent allotted to credit & training, 15 per cent to women's management training, 50 per cent to H/FP, Total Tk. 460 m credit to women   | Rural poor men and women   | 301,000 women (65 per cent) |
| Comilla Proshika                     | Self-help                                    | Total budget for 1985-90 is Tk. 10m of which 10 per cent went into women's projects which deal mainly with awareness raising, education, training & IGA   | Poor women at target area  | N.A.                        |
| MCC                                  | Job Creation Programme                       | Job creation for women through small industries   | 7 districts                | N.A.                        |
| FORS                                 | Self-help                                    | 19 per cent to community organization, literacy, social awareness, 21 per cent to IGA, 16 per cent to health, nutrition & FP, 31.6 per cent to small scale agricultural and industrial project, 40 per cent field workers are women | Landless & women, Rangpur  | N.A.                        |

## 6. CONSTRAINTS ON WOMEN'S DEVELOPMENT PROJECT

### 6.1 Institutional

a. *Attitude*: One of the principal factors for women's unequal and inferior status is their separation from major economic activities in the society. Their current economic contribution is largely ignored and future economic potential is not taken seriously by policy makers. Most of the women's project are considered as relief, not as a real development activity. In larger integrated projects, women are just mentioned as an 'appendix'.

b. *Shortage of Qualified Female Staff*: It is necessary for women's projects to hire female field workers who would have access to village women as most of them live in purdah. Most educated women live in urban areas and find it difficult to live in rural areas due to unhealthy living conditions and poor sanitation. It is extremely difficult for married women with school going children to go to live in rural areas.

One way to alleviate this problem is to hire local women and train them thoroughly.

c. *Management*: Most women's group have little management skills or marketing knowleges. Most projects suffer due to this lack of skills, some become failures.

d. *Logistics*: Shortage of training aids, equipment and other necessary supply, create problems for development activities.

### 6.2 Cultural/Religious/Social Constraints

a. So far, Bangladeshi women are involved outside home in a limited range of activities, which are sanctioned by the society. For middle class women, there are certain honourable jobs outside home i.e. teacher, doctor, nurse, etc. Poor rural women husk rice and perform domestic duties for wealthier households. Society disapproves of women's manual labour outside her home.

b. If women seek employment outside home, they face strong opposition both from relatives and the community and stand to loose their esteem and prestige in the society.

c. The overall low level of economic development, extensive male unemployment, strong cultural norms defining the role of women, gender segregation and the structures of purdah system have all combined to exclude women from all the important sources of wage employment and income generation [6].

#### 7. BENEFITS DERIVED BY WOMEN

Many women, though not great in number benefited from all the activities by NGOs and donors. Most importantly, they serve as role models for other women to follow. The following are the areas where according to the NGOs and donors women benefited most:

a. *Group Formation* : This activity organizes the women, they become aware of their rights by the process of conscientization. Group strength is much more effective. Though group discussions, they get more information, knowledge and awareness of problems and how to deal with them.

b. *Education / Training / Skills* : This make women a better candidate for employment. They are no longer at the bottom of job market, but can secure better and higher paying jobs—mostly in non-domestic, non-farm areas.

c. *Women's Increased Productivity* : This has increased production for the whole economy. For themselves, they earn more and their families have more money to spend, consume more and are in better health.

d. *Health Education and Immunization Programmes*: This have benefited women immensely. There is decreased child birth, child mortality and morbidity rates. Due to awareness of pure water, sanitation, etc. families follow better hygiene and are in better health.

e. As women become *earning members* of the families, they are treated with respect by husbands and in-laws. Women's dignity of labour has increased.

f. Women have access to *savings and credit*. They are no longer in the grips of unscrupulous money lenders. With credit, they can start small businesses or any other income generating activity.

#### 4. LESSONS LEARNT

a. Identify the income generating activity (IGA) in which women are already involved outside their regular household duties, as well as the skills they have acquired. These areas could be their new income earning productive activity outside home.

b. Identify the potential but currently non-existent areas of women's IGA to assess the possibilities of using their existing skills or arrange training so they will acquire new skills for this productive activity.

c. Marketing the products is of major importance. Women have to be

trained with marketing skills. It is better for them to produce locally marketable products.

d. It is very important to organize women to make them aware of their rights and self-worth, so they are not deprived of their rightful position in the society.

e. Religious/social prejudices are major impediment to women's progress. Formal and functional education initiatives must also be directed at male relatives and mothers-in-law, so they do not hamper women's development. Changes in attitude is more significant than changes in immediate observable behaviour for long term sustainability. Involve all women elderly, grand-mother, mothers-in-law. Motivation should be focused toward the more resisting groups.

f. Female field workers serve as role models. Their presence encourages poor rural women to seek employment outside home. They also give vital support and help to women's group activities. Hence it is necessary to hire more female field workers and female volunteers.

g. It is important not to focus only on the range of activities women do now, but identify areas which could open up new opportunities.

h. GOB/Grameen Bank/NGOs should give more credit as investment, not at subsistence level. A credit which would enable women to move their activities from the level of home-based handicraft production to small scale production.

## 9. CONCLUSIONS

a. If poor women are provided with necessary opportunities they can increasingly take charge of their own development. However, it has been observed that in most cases, women's employment and IGA have remained confined to so-called 'women' or 'soft' areas which are more laborious and less regarding than the work done by their male counterparts. Women are still working in traditional, stereotyped, less paying jobs.

b. Women should be involved in non-traditional and productive activities provided with necessary technical and managerial skills to undertake activities which are traditionally conceived as male activities.

c. Immediate measures in respect to women's development should be to involve them in 'mainstream' economic activities—opportunities should be created to enable women to become earning members of their families. This will enhance their status and they will be less intimidated/abused by

their husbands or in-laws. This will reduce their total dependence on men and they will have a decision making role in their own families.

d. Women are not a homogenous category, but diverse population, they have different needs, different interests and different resources and require distinct and specific policy and programme interventions in their development process.

e. For regular assesment and monitoring purpose, every project proposals should include factors such as expected coverage, direct benefit or even proxy indicator which can be clearly indentified during the life time of the project. It would be helpful if an agency could provide continuous monitoring and evaluation of various projects.

f. Development of women should be a policy by itself. It should not be used as a means to achieve other objectives. Both economic growth and social justice call for increased attention to the enhanced participation of women in the development process.

# ANNEX A

The questionnaire was sent to the following foreign donors and NGOs during January-February, 1989. The agencies marked with\* did not return the questionnaire.

## A. BILATERAL DONORS:

- \* 1. Australia
2. Canada/CIDA
3. Denmark/DANIDA
4. Federal Republic of Germany
- \* 5. Japan
6. Netherlands
7. Norway/ NORAD
8. Sweden/SIDA
9. UK/ODA
10. USA / USAID

## B. BILATERAL DONORS-NGOs

1. The Ford Foundation

## C. MULTILATERAL AGENCIES:

1. Asian Development Bank
- \* 2. UNDP
3. WFP
4. FAO
5. UNICEF
6. UNFPA
- \* 7. WHO
- \* 8. UNESCO

## D. NGOs AND OTHER AGENCIES

1. CARE
2. Swanivrar Bangladesh
3. Proshika
4. Comilla Proshika
5. BRAC
6. MCC
7. OXFAM
- \* 8. Nijera kari
- \* 9. Grameen Bank
10. RDRS
- \* 11. Gana Shashya Kendra
12. CARITAS

ANNEX B

Table-1: Donors Fund Allocation for Social Development Projects during 1981-90.

(Figures in US \$ '000' )

| Sectors                        | Allocation Amount | Per cent |
|--------------------------------|-------------------|----------|
| 1. Population control          | 518,747           | 43.60    |
| 2. Human settlement            | 44,656            | 3.75     |
| 3. Health                      | 276,436           | 23.23    |
| 4. Education                   | 200,524           | 16.85    |
| 5. Employment                  | 81,926            | 6.89     |
| 6. Humanitarian Aid and Relief | 550               | 0.05     |
| 7. Social condition and equity | 40,827            | 3.43     |
| 8. Advancement of women        | 22,245            | 1.87     |
| 9. Culture                     | 1,049             | 0.09     |
| 10. Science and technology     | 2,755             | 0.23     |
| Total:                         | 1,189,717         | 100.00   |

Source: UNDP, DCR, 1988.

Proportion of fund allotted to social development sectors is 2.65 per cent of total allocation.

Table-2: Donors Fund Allocation for Projects during 1981-1990

( Figures in US\$ '000' )

| Sector  | Allocation | Per cent   |
|---|------------|------------|
| 1. General Development issues, Policy and Planning: | 77,494     | 0.17       |
| 2. Natural resources                                | 3,703,886  | 8.24       |
| 3. Agriculture, Forestry and Fisheries              | 37,724,350 | 83.96      |
| 4. Industry   | 537,323    | 1.19       |
| 5. Transport and Communication                      | 1,174,842  | 2.61       |
| 6. International trade and Development finance      | 523,148    | 1.16       |
| 7. Population Control                               | 518,747    | 1.15       |
| 8. Human Settlement                                 | 44,656     | 0.10       |
| 9. Health   | 276,436    | 0.61       |
| 10. Education                                       | 200,524    | 0.45       |
| 11. Employment                                      | 81,926     | 0.18       |
| 12. Humanitarian aid & relief                       | 550        | negligible |
| 13. Advancement of women                            | 22,245     | 0.05       |
| 14. Social conditions & equity                      | 40,827     | 0.09       |
| 15. Culture   | 1,049      | negligible |
| 16. Science & Technology                            | 2,755      | 0.01       |
| Total:  | 44,930,758 | 100.00     |

Source: UNDP, DCR 1988.

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## WATER RESOURCES DEVELOPMENT AND THE FOURTH FIVE YEAR PLAN OF BANGLADESH : SOME OBSERVATIONS

M.A. HAMID\*

There is no controversy over the fact, as the Planning Commission (PC) has rightly pointed out, that planned utilisation and efficient management of water resources is one of the most crucial elements for achieving the desired changes in agricultural production and productivity in Bangladesh, but opinions differ quite widely about the ways and means through which the optimum utilisation of water resources can be achieved without producing any adverse effect on its other uses (particularly, domestic and industrial use and also navigation) on the one hand and ecological balance, so essential for the very existence of human life, on the other. The main purpose of the paper would be to discuss some of the vital issues of water resources development with particular reference to the Fourth Five Year Plan (FFYP) of Bangladesh (1990-95) and offer some suggestions to deal with them.

### 1. WATER RESOURCES POTENTIALS AND IRRIGATION POSSIBILITIES

The first point that bothers me is the reliability and respectability of the data concerning the water resources potentials and irrigation possibilities in the country. The PC with an estimated bench-mark irrigated area of 3.10 mha in 1989-90 has planned to bring 4.81 mha by the terminal year of the FFYP (1994-95). The question is: To what extent are these figures respectable? Consider the case of base year data. The estimate made by the PC stands at 3.10 mha and that made by MPO (Master Plan Organisation) stands at 3.26 mha, the latter being higher than the former by 5%. One would become more confused when one goes through the irrigation area statistics collected from various sources for some selected years as in table 1. For example, for 1983-84, one finds that the irrigated area was 1.62 mha (as given by Agricultural Census), 1.92 mha (as made by BBS) and 2.18 mha (as shown by ASR-Agriculture Sector Review). Which one would we believe then? (References are given at the end of the paper).

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\* Professor, Department of Economics, Rajshahi University.

The data relating to future potentials and possibilities may be regarded as more susceptible. Fortunately, we do not have too many sources. There are only two, the PC and the MPO. Since the PC has promised that "the study of MPO will continue to be the main basis for the development of water sector", one may assume that the suggestion given by this Organisation i.e. 4.21 mha for the year 1994-95 and 5.45 mha for 2004-05, would be accepted by the PC. But it is not understood, on what basis or logic the PC has set the target at 4.81 mha for 1994-95 which is higher by 14%. Incidentally, the MPO's growth rate becomes 5.2% and that of the PC 9.2% over the Plan period under review. It is also to be recognised that the base year's figure of the PC (2.48 mha) is higher than that of the MPO (1.92 mha) by as much as 29%. The climax is that the MPO's figure includes area under FCDI (Flood Control, Drainage and Irrigation) but the PC's data does not !!!

We can pursue the matter further with reference to the area irrigable through groundwater. The relevant questions include: How much groundwater do we have in Bangladesh? How much can we contract for irrigation without affecting its other uses? Unfortunately, specialists are giving conflicting and widely varying assessments about the groundwater availability in the country. Table 2, for illustration, provide some information on the available recharge and future groundwater potential in Bangladesh obtained from Karim and MPO [5,8]. It can be seen that the present volume of abstraction of groundwater as estimated by Karim on the basis of total yearly pumping hours (900 hours/year) is 9,260 mcm and that made by MPO on the basis of irrigated area and total water demand as 6,120 mcm (see foot note in the table), the latter being only 66% of the former. On the other hand, the future groundwater potential as assessed by Karim is 5,542 mcm and that made by MPO is 17,939 mcm, the latter (noticeably) being higher than the former by 234%. These conflicting and widely varying results are said to have been due mainly to differences in conceptions, methodologies adopted for the estimations and the use of different data base. As ASR opined, "The conceptional basis and methodology of the recharge model developed by the MPO is valid and appropriate but reservations have been expressed from many quarters about the parameters and data base used in the model," [10, Vol. III; 160].

Against the background, the MPO has set an optimum limit at 3.05 mha to be irrigated by groundwater by the terminal year of the NWP (National Water Plan), i.e. 2005 and the PC has fixed the target at 3.02 mha to be

irrigated by the same source by the terminal year of the FFYP i.e. 1994-95. I am concerned with this attempt to exploit groundwater by such an extent within so short a period of time.

This type of attempt would almost certainly produce many adverse impacts on the environment of the country. The most obvious one would be lowering of groundwater table. L.R. Khan has recently demonstrated that in several areas of Bangladesh (such as Rajshahi, Bogra, Pabna, Comilla, Mymensingh and Dhaka), groundwater abstractions are causing a large decline in groundwater level during the dry months of the year. It has also been pointed out that in the northern districts of Rajshahi and Bogra groundwater levels have depleted to a level of 9-13 meters below the static water table. Furthermore, about 50,000 ponds, tanks and ditches in the Barind have dried up [6; 11-2]. Secondly, as underground water becomes more scarce due to overexploitation, the quality of water deteriorates. This happens not only due to natural phenomena but also due to man-made pollutants (fertilizers, pesticides, etc).

Fortunately, the PC appears to be aware of these environmental impacts (P.V.B.-10) but, unfortunately, at the same time appears to have completely overlooked these impacts while dealing with the water resources potentials and irrigation possibilities during the current five year plan.

However on this particular point, the following suggestions are offered:

- (a) The target for irrigation should be reduced from 4.81 mha to somewhere around the figure suggested by MPO and reallocated the money for such activities as crop diversification, livestock production and poultry raising.
- (b) A suitable monitoring mechanism as mentioned in the Plan, must be devised and evaluation of the environmental impacts must be carried out by independent experts.
- (c) Attempts should be made to reserve surface water by reintroducing the Canal Digging Programme of the erstwhile government (with modifications as necessary). This would certainly be more beneficial and less harmful when compared to the attempt to over-exploit groundwater.
- (d) Another important suggestion is that the PC (or any other appropriate institution) should immediately make a nationwide survey in order to, among others, ascertain the area of land irrigated by different techniques for different crops.

## 2. MIP-VIS-A-VIS FCD

Flood control measures had been undertaken in Bangladesh long before the introduction of the modern minor irrigation programme (MIP) got effectuated through the application of STWs, DTWs and LLPs. It was soon realized that the FCD (Flood Control and Drainage) programme, if effectively adjusted to the MIP, can contribute to the overall objective of the water resources development i.e. increasing agricultural productivity. According to MPO, growth of minor irrigation in the order of 0.25 mha per annum would require parallel investment in FCD to cover about 0.20 mha. Against this type of background, the PC has planned to increase the area under FCD from 3.24 mha in 1989-90 to 3.64 in 1994-95 and wished to give careful consideration on the recommendations made by NWP of 1986 on operation and maintenance of FCD and irrigation.

Regarding floods, I cannot but agree with the PC that Bangladesh cannot control flooding but have to live with it. But still, I cannot agree with the proposal of so much expansion of the FCD programme for the following reasons:

First, available time series data over the last 4 decades or so suggest that as more and more embankments have been added in the floodplains, the area flooded during catastrophic floods has, in fact, paradoxically increased; for example: 12,000 sq.m. in 1954, 14,000 sq.m in 1955, 20,000 sq.m in 1974, 22,000 sq.m in 1987 and 30,000 sq.m in 1988 [1;2]. Secondly, on the one hand, the FCDI projects have never been evaluated by "independent" specialists and, on the other hand, most of the studies so far carried out suffer from methodological drawbacks and other inadequacies. One or two examples will make the point clear. The evaluation report of Chandpur irrigation project, although gives an IRR near about 10%, did not consider the loss of fish output; the Barisal irrigation project has a very low IRR and Brahmaputra Right Embankment Project has failed 5 years out of the last 7 years. The Right Embankment Project breached due to erosion. The FCD projects are not only can sing damages to the inland fisheries but also to the life and property of people living within the boundary of the embankments. Incidentally, although the PC will not allow us to know, the PCDI projects represent about 60% of the direct development expenditure on agriculture and other related activities in recent years [10; chpt. III].

It is therefore stard that unless and until the FCDI projects are properly evaluated by independent specialists and results are examined, the rate of expansion of the PCDI projects must be cut down. The money so relieved

should be diverted to the increase in the production of minor crops (like pulses, oilseeds and others) and livestock and poultry output as said above.

### 3. PRIVATIZATION

During the initial years of irrigation development, distribution of all the critical inputs was handled by government agencies like BADC, BWDB and BRDB. Complaints were raised against these agencies regarding their efficiency and honesty. From the early eighties, as an alternative mechanism, privatization was introduced in the agriculture sector. Distribution of fertilizers and pesticides were left with the private dealers, ultimately to private sellers. Rental Programme (RP) of the BADC was gradually turned into Sales Programme (SP). In a sense, all equipments and critical inputs are now being handled by the private sector. From 1988-89, all restrictions connected with the import of irrigation machines, spares, fertilizer have been withdrawn. As an important implementation strategy, the PC has decided to accelerate further the privatization programme during the next 5 years (P.V.B.-6).

It is true that privatization has done some positive good to the society during recent years. But one should not be blind to the following observations.

- (a) It is certainly true that privatization has led to increase in the sale of irrigation equipment but it is not necessarily true that it has also led to increase in crop output. One evaluation study gives that about one-third of the LLP engines were being used for such non-agricultural activities as dewatering of ponds and tanks, rice husking and boat plying [3]. Incidentally, the rapid increase in food output (18.5 mt) in 1989-90 was due mainly to the severe floods of 1988 as it also happened after the severe floods of 1974 and in 1975-76.
- (b) Because of free import, standardization of engine models will become in operative at least for the initial years of the Plan affecting adversely the availability of spare parts and complicating the repair and maintenance problems.
- (c) The change-over from RP to SP has affected the users of irrigation equipment in Haor Basin and other in accessible areas because service network had not developed there. Note that this change-over was made in the hope that it would, among others, lead to an increase in overall efficiency through better care of irrigation

equipments, lower maintenances, costs, fuller use leading to lower unit costs and non importantly, fewer conflicts in management. To my field experiences, these expectations have not been realised in practices.

Under these conditions, I would like to reemphasize the suggestion of the PC that the Ministry of Planning will have to deal with difficult regions where opportunities for expansion with MIP are limited and review from time to time the policies so far envisaged. I would continue to suggest also that the government sector must be allowed to work side by side in the private sector in all spheres of water resources development in Bangladesh.

#### 4. SUBSIDY

The Third Five Year Plan (1985-90) attempted to rationalize the subsidy over all methods of irrigation. The current Plan is apparently silent about this issue implying the rationalization of subsidy policy has perhaps been successfully addressed to.

The policy to withdraw subsidy on irrigation equipments and other vital inputs have been regarded as anti-productive. The decision to subsidize bigger equipment (DTWs) or bigger gravity flow schemes (those managed by BWDB) and realise full capital cost from the smaller ones (STWs) and keep traditional technologies out of consideration are not tenable. The immediate impact of this policy has been the rise in the cost of production of irrigated crops more than in proportion to the rise in the output prices. Happily, the PC has recognised this hard fact. It is shown that although in 1984-85, the ratio of harvest price to total cost of Boro HYV (the most important irrigated crop) was 1.11, in 1988-89 this ratio came down to 0.96. This type of unfavorable ratio has also been noticed for other rice crops like T Aman, HYV Aus and Boro Local (P.V.A-37).

At least two reactions of the irrigators to this input-output price ratios can be noted. One is that the water sellers, particularly where the water market is less than perfect, try to shift the burden of higher costs on to the water buyers. The other is the non-repayment of loan taken from various institutional sources. It is in this sense that one can take the opinion of the PC i.e. ".....rapid expansion of agricultural credit which blunted the effect of reduction of subsidies on minor equipment," (P.V.B.-10), and not otherwise.

Against this scenario, I would go on repeating the old suggestion that Government should not go on withdrawing subsidy from such vital inputs as irrigation equipment and fertilizers.

## 5. GOVERNMENT INVESTMENT

Government investment in the water resources development sub-sector is necessary for two tasks: One is to provide those public goods and services the expenses of which are beyond the capacity of the individual/private persons i.e. FCDI projects, gravity flow irrigation schemes, extension and training and other related activities. The other one is to supplement the resources which the farmers can themselves mobilise. These include supply of institutional credit for the purchase of current inputs, irrigation machines, and the like.

Although the nature and extent of financial outlay devoted exactly to this water sub-sector is not made available through the usual published documents, we can make some observations on the overall trend of outlay in the agriculture, water resources and rural development sector as a whole. Incidentally, the FFYP has allocated a sum of Tk. 6,529 crore (gross) for the activities under reference.

As shown in Table 3 the proportion of public expenditure actually used for the agricultural sector has been on the decline since the Third Five Year Plan of Pakistan (1965-70). I am not sure whether the PC is concerned over the fact that this decline in the public expenditure is also being associated with the decline in the agriculture's contribution to GDP. Whereas during the period 1965-70 (TFYP of Pakistan), some 37% of the total government expenditure was actually devoted to the agricultural sector and its contribution to GDP was around 60%. The utilisation of government's funds continuously declined since then to as low as 21% during the TFYP of Bangladesh (1985-90), agriculture's share to GDP also came down to as low as 39% in the last year of the Plan. The current five year plan has depicted similar trend.

The ASR has pointed out another important dimension of the above-mentioned picture. It has been shown that the real public expenditure on agricultural activities has fallen by almost 50% since the beginning of the SFYP (1980-85); agriculture's share fell from 33% to 17% of Annual Development Programme allocation from 1980-81 to 1986-87 [10; 62].

I am concerned and worried with the continuously falling government expenditure in the agriculture sector. I do not think it wise to force the agriculture sector by allocating lesser and lesser proportion of money to contribute lower and lower share to the country's GDP. Had this lower contribution been compensated by the increase in the share of the industrial sector, nobody would have bothered, but this is being

compensated by the trade and service sector which involves among others illegal trade and smuggling. I urge the PC to allocate men and money to this sector, particularly for the livestock and poultry activities.

#### 6. IRRIGATED AGRICULTURE UNDER RD & I

Finally, some observations can be made over the irrigated agriculture under the Rural Development and Institution (RD & I) sector. The programme under this sector envisaged distribution of minor irrigation equipment and implementation of Irrigation Management Programme (IMP). This is executed through farmers cooperatives (UCCA-KSS system). On the basis of the belief that the 'IMP training was imparted (at the Upazila level) to about 90,000 implementors. As a result of IMP under these projects, irrigation area increased by about 54 per cent and the production cost decreased by about 16 per cent per equipment in the project area' (P.V.F-3), the Fourth Plan has proposed for the expansion of activities under the sector.

This decision is not questioned but it can be urged that the PC would make an "independent" evaluation of the activities of such projects as IMP so that correct picture about these projects can be obtained rather than believing the official findings as quoted.

In conclusion, it is hoped that the issues raised and suggestions offered in the paper will receive the attention (they deserve) of the planners before the FFYP document (1990-95) get finalised.

Table-1: Some Vital Irrigation Statistics as Collected from Various Sources for Some Selected Years. (Areas in mha)

| Year    | BBS  | PC   | MPO  | 1983-84<br>Ag. Census | ASR  |
|---------|------|------|------|-----------------------|------|
| 1972-73 | 1.21 | 0.94 | —    | —                     | —    |
| 1977-78 | 1.45 | 1.16 | —    | —                     | —    |
| 1979-90 | 1.57 | 1.41 | —    | —                     | —    |
| 1983-84 | 1.92 | —    | —    | 1.62                  | 2.18 |
| 1984-85 | 2.07 | 2.48 | 1.92 | —                     | —    |
| 1989-90 | —    | 3.10 | 3.26 | —                     | —    |

| Year                     | MPO (NWP) |      |       | PC   |      |       |
|--------------------------|-----------|------|-------|------|------|-------|
|                          | SW        | GW   | Total | SW   | GW   | Total |
| 1989-90                  | —         | —    | 3.26  | 1.29 | 1.81 | 3.10  |
| 1994-95                  | —         | —    | 4.21  | 1.79 | 3.02 | 4.81  |
| 2004-05                  | 2.40      | 3.05 | 5.45  | —    | —    | —     |
| Growth rate<br>(1990-95) | —         | —    | 5.2   | 6.8  | 10.8 | 9.2   |

N.B. SW=Surface water, GW=Ground water,

# Hamid: Water Resources

Table-2: Available Recharge and Future Groundwater Potential in Bangladesh

| Item                           | (In mcm) |           |
|--------------------------------|----------|-----------|
|                                | Karim    | MPO       |
| (1) Present potential recharge | 32,211   | 68,650    |
| (2) Available recharge         | 14,802   | 25,749    |
| (3) Present use                | 9,260    | 7,812 *   |
| (4) Future potential (3-4)     | 5,542    | 17,937 ** |

Source: [5,8].

\* This includes an amount of water (1692 mcm) in excess of dry season water demand from the use of all available land according to present cropping pattern.

\*\* This includes water amounting 1335 mcm obtained from AFP (Active Flood Plan).

Table-3: Allocation of Public Expenditure to the Agriculture Sector and the Latter's contribution to GDP.

| Period  | Allocation of Total Public Expenditure | Contribution to GDP |
|---|--|---------------------|
| Third Five Year Plan of Pakistan (1965-70)    | 37                                     | 60                  |
| First Five Year Plan of Bangladesh (1973-78)  | 32                                     | 57                  |
| Two Years Plan of Bangladesh (1978-80)        | 27                                     | 52                  |
| Second Five Year Plan of Bangladesh (1980-85) | 30                                     | 51                  |
| Third five Year Plan of Bangladesh (1985-90)  | 21                                     | 39                  |
| Fourth Five Year Plan of Bangladesh (1990-95) | 27                                     | 37                  |
|   | (Expected)                             | (Expected)          |

Note: Figures are in percentages. Contribution to GDP refers to the last year of the relevant planning period.

Source: Collected from various planning documents.

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Table 3: Allocation of Public Expenditure to the Agriculture Sector and the latter's contribution to GDP

| Period  | Allocation of Public Expenditure to Agriculture (%) | Agriculture's Contribution to GDP (%) |
|---|---|---------------------------------------|
| Fourth Five Year Plan of Bangladesh (1990-95) | 37  | 30                                    |
| Third Five Year Plan of Bangladesh (1985-90)  | 35  | 27                                    |
| Second Five Year Plan of Bangladesh (1980-85) | 30  | 21                                    |
| First Five Year Plan of Bangladesh (1975-80)  | 27  | 18                                    |
| Third Five Year Plan of Pakistan (1965-70)    | 37  | 30                                    |

## A REVIEW OF LIVESTOCK, FISHERIES AND FORESTRY SUB-SECTORS: THE CASE OF THE DRAFT FOURTH FIVE YEAR PLAN

JAHANGIR ALAM\*

### INTRODUCTION

The possibility of augmenting Socio-economic development of common people through the development of livestock, fisheries and forestry sub-sectors is, indeed, very great. The livestock and fisheries sub-sectors supply about 80 per cent of animal protein for human consumption, contribute about 10 per cent to the GDP and generate about 26 per cent of the total foreign exchange earnings. Moreover, livestock provides full time employment to 20 per cent of rural population and fisheries employ 2.1 million rural households of the country. Till today, livestock is the main source of draught power for crop production and rural transportation.

The forestry sub-sector contributes about 3 per cent to the GDP and employs about 2 per cent of the total labour force. Forests and trees are the sources of essential materials like timber, fuelwood, Bamboo, thatching grass, fruits and honey. Forests also provide habitat for wild life. Forests are vitally important for ecological balance in the environment.

The objective of this paper is to examine the rationale of allocation made to each sub-sector and review the development strategies outlined for each sub-sector in the draft FFYP.

### PRESENT STATUS OF THE SUB-SECTORS

#### *Livestock*

In terms of livestock population, Bangladesh is a very densely populated area with a relative density well above the averages for many other countries of the world. The livestock population is estimated to consist of 22.50 million cattle, 0.56 million buffaloes, 10.60 million goats, 0.53 million sheep, 64.95 million chicken and 25.96 million ducks (DLS, 1985-86). The

\* Chief Scientific Officer and Head of Economics and Marketing Division, Bangladesh Livestock Research Institute (BLRI), Savar, Dhaka.

The views expressed in this paper are those of the authors and do not necessarily represent the views of the Institute.

country ranks twelfth in cattle population and thirteenth in cattle and buffalo population among the world's countries. Her position becomes 3rd among the Asian countries and 2nd among the SAARC countries.

In spite of a very high density of livestock population, the country suffers from an acute shortage of livestock products like milk, meat and egg. It can be noticed from Table 1 that the shortage of milk, meat and egg accounts for 89.72%, 93.20% and 93.70% respectively. Per capita availability of animal protein from domestic livestock source has declined from an average 2.03 gm per day to 1.82 gm per day over the 1977-87 period. As a result two-thirds of the total population suffer from protein deficiency.

The shortage of livestock products is attributed to poor quality of livestock species and their low productivity. The current milk production is about 0.65 kg per cow a day compared to 20 kg in advanced countries. A native hen lays 40 to 50 eggs a year compared to 250 to 300 eggs laid by a hen of exotic breed (white leghorn). The average meat production of a native cattle is about 75 kg compared to 300 kg in developed countries. All the evidence indicate that the livestock sub-sector in Bangladesh is least developed.

Apart from a chronic shortage of livestock products for human consumption, there is an acute shortage of animal power for tillage operation. With increased cropping intensity and adoption of modern varieties of crops, shortfall in draught power for performing essential operations is becoming a serious constraint to agricultural development. The extent of shortage appears to be 7.3 per cent in terms of number of draft cattle heads, but the proportion rises to 40.9 per cent when the estimate is made on the basis of power unit. These figures indicate that the actual horse-power availability in the country is far less than what the total number of animals would suggest. The situation has aggravated due to a decline in power output of each work animal from 0.25 HP in 1978 to 0.17 HP in 1988. The average body weight and power output of cattle in Bangladesh is currently the lowest in the world. This is also related to least development of the livestock sub-sector in Bangladesh.

#### *Fisheries*

The fisheries sub-sector in Bangladesh are broadly divided into inland and marine fisheries. The total inland water area is estimated at 4.28 million hectare of which about 25 per cent are rivers. In case of marine fisheries, Bangladesh has a coastal belt of 480 km. The economic zone extends up to 200 miles from the coast line.

## Alam : Livestock, Fisheries and Forestry

Table-1: Production, Requirement and Deficit of Livestock Products.

| Livestock Products   | Per capita need | Per capita available | Total need                       | Total Production                  | Total deficit         |
|--|-----------------|----------------------|----------------------------------|-----------------------------------|-----------------------|
| Milk (Cattle, buffalo)                                     | 250 ml.         | 43 ml.<br>(approx.)  | 9.124 MMT <sup>1</sup><br>(100%) | 938.0TMT <sup>2</sup><br>(10.28%) | 9.031 MMT<br>(89.72%) |
| Meat (Cattle, buffalo, sheep, goat, poultry, duck, pigeon) | 120 gm.         | 6.25 gm<br>(approx.) | 3.942 MMT<br>(100%)              | 268.1 TMT<br>(6.80%)              | 3.915 MMT<br>(93.20%) |
| Eggs (poultry, ducks)                                      | 2/week          | 0.3/week             | 292 MN <sup>3</sup><br>(100%)    | 18.41 MN<br>(6.30%)               | 273.59 MN<br>(93.70%) |

Source: Directorate of Livestock Services, 1987.

1. MMT-Million metric tons.

2. TMT-Thosand metric tons.

3. MN-Million Nos.

Present production of fish is 0.85 million tons. Inland fisheries contribute about 73 per cent and marine fisheries contribute 27 per cent to the total catch of fish in Bangladesh. While in 1962-63 the per capita per day fish consumption was about 33 gm, the present per capita consumption is only about 20.5 gm, as against the estimated minimum requirement of 73 gm per head per day. The total fish production increased only marginally from 0.81 million tons in 1968-69 to 0.85 million tons in 1989-90 which could not keep pace with the increase in population.

The stagnation in fish production over the years is attributed mainly to a gradual reduction in production of inland capture fisheries. One can notice from Table 2 that the total production of capture fisheries has declined from 0.47 million tons in 1983-84 to 0.42 million tons in 1988-89. If this trend continues, there is the apprehension that the total fish production will fall by 0.25 million tons in the year 2000.

### Forestry

Total available area for the purpose of forestry operations and tree crops in Bangladesh is estimated at 2.45 million hectare. Out of this 2.18 million hectare (89% of total area) is Government owned and the rest (0.27 million hectare or 11%) is privately controlled homestead forest land scattered all over the country. More than 90% of the state-owned forest land is concentrated in 12 districts in the east and south-eastern region of the country. Out of 64 districts, 28 districts have no public forest at all.

It is generally argued that 25 to 30 per cent of total land area should be kept under forestry in order to maintain an ecological balance. In

Bangladesh, only about 17 % of the total land is either forest or potential forest land. Per capita availability of forest land is only 0.02 ha. The Present production level is lower than it was in the early 1970s and per capita availability of major forest products has declined sharply over the years.

Currently, only about 61 per cent of the government controlled forest is productive. However, this area has been so having exploited that the present tree covered area is estimated to be less than 30 per cent. The stock of village forests has shown a gloomy picture too.

Table-2: Annual Total Fish Catch in Tonnes by Type of Fisheries, 1983-88.

| Fishery Type                           | 1983-84 | 1984-85 | 1985-86 | 1986-87 | 1987-88 |
|--|---------|---------|---------|---------|---------|
| Inland Fisheries                       |         |         |         |         |         |
| (a) Capture                            |         |         |         |         |         |
| 1. River & estuaries except Sundarbans | 207,766 | 213,057 | 199,600 | 195,117 | 183,817 |
| 2. Subdarbans                          | 7,783   | 6,825   | 7,112   | 6,035   | 8,066   |
| 3. Beels                               | 51,373  | 45,893  | 45,258  | 42,077  | 45,610  |
| 4. Kaptai Lake                         | 4,057   | 2,700   | 2,433   | 3,981   | 4,068   |
| 5. Flood Lands                         | 200,616 | 194,130 | 187,396 | 183,796 | 182,037 |
| Capture Total:                         | 471,595 | 462,605 | 441,799 | 431,006 | 423,598 |
| (b) Culture                            |         |         |         |         |         |
| 1. Ponds                               | 107,944 | 111,567 | 123,804 | 142,876 | 149,423 |
| 2. Baors                               | 862     | 962     | 968     | 1,174   | 1,254   |
| 3. Shrimp Farms                        | 8,219   | 11,282  | 19,951  | 22,050  | 25,248  |
| Culture Total:                         | 117,025 | 123,811 | 144,723 | 166,100 | 175,925 |
| Inland Total:                          | 588,620 | 586,416 | 586,522 | 597,106 | 599,523 |
| Marine Fisheries                       |         |         |         |         |         |
| (a) Industrial (trawl.)                | 14,500  | 12,440  | 11,898  | 12,356  | 10,395  |
| (b) Artisanal                          | 150,382 | 175,123 | 195,503 | 205,223 | 217,187 |
| Marine Total:                          | 164,882 | 187,563 | 207,401 | 217,579 | 227,582 |
| Country Total:                         | 753,502 | 773,979 | 793,923 | 814,685 | 827,105 |

Source: Directorate of Fisheries.

The supply of fuelwood fall far below the level of minimum wood energy need, which force the population to resort to other forms of biomass fuel like crop residues and cowdung.

#### DDFFYP Allocation

Evidence presented so far suggests that there is a big gap between availability and requirements in each sub-sector and that there is enough

### *Alam : Livestock, Fisheries and Forestry*

scope for undertaking development programmes to meet the increasing demand of the people. This requires massive investment on development projects. Thus there is an urgent need for a greater allocation of funds in each sub-sector on priority basis.

The DFFYP made an allocation of Taka 581 crore to livestock, Taka 749 crore to fisheries and Taka 845 crore to forestry. The share of these sub-sectors to total allocation is worked out at 1.43%, 1.84% and 2.07% respectively (Table-3). Although these proportions are marginally higher than those in the TFYP, the additional allocation made is virtually insignificant in relation to the gigantic task that these sub-sectors would require to perform.

The livestock sub-sector, in particular, has been dealt with in a very unrealistic fashion. Its contribution to GDP is said to be 11.5% (MOFL claims 16.5%), but it received only 1.4% of total allocation. A much higher allocation to this sub-sector is justified and will be remunerative.

Not only the livestock, fisheries and forestry sub-sectors, but the whole agricultural sector has been deprived of getting due share of total development expenditure in the public sector. The contribution of crop agriculture to GDP accounts for 26.2 per cent, but it received only 3.66% share of total allocation. The joint contribution of crops, livestock, fisheries and forestry to GDP is 39%, but they jointly received only 9% share of total DFFYP allocation. The share of these sub-sectors to total allocation has declined from 14% in the FFYP to 9.6% in the TFYP and further to 9.0% in the DFFYP. During the FFYP period, 32 per cent of the total development expenditure was actually devoted to the agricultural sector (including water resources and rural institutions).

Table-3: Sectoral Share to GDP and FFYP Allocation.

| Sector    | GDP (%)        | Growth rate (%) | Allocation (%) |      |      |
|-----------|----------------|-----------------|----------------|------|------|
|           |                | TFYP            | FFYP           | TFYP | FFYP |
| Livestock | 6.5<br>(11.5)* | 5               | 4.6            | 1.0  | 1.43 |
| Fisheries | 3.6            | 1.4             | 4.8            | 1.4  | 1.84 |
| Forestry  | 3.1            | —               | —              | 1.6  | 2.07 |
| Crop      | 26.2           | 2.5             | 3.6            | 5.6  | 3.66 |

\* Draft Power, dung, blood and bones included.

Table-4: Allocation of Fund and Expenditure (TFYP).

| Sector              | TFYP<br>allocation<br>(Tk. in crore) | Total<br>expenditure<br>(%) |
|---------------------|--------------------------------------|-----------------------------|
| Livestock           | 245                                  | 62*                         |
| Fisheries           | 350                                  | 40                          |
| Forest              | 392                                  | 52                          |
| Total               | 987                                  | 50                          |
| Agricultural Sector | 7060                                 | 51                          |
| All Sectors         | 25000                                | 69                          |

\* Disbursement made

Includes Projects aid

This has come down to 27% in the DFFYP. The share of agriculture to GDP also came down from 57 per cent in 1973-74 to 39% in 1989-90 and further to 27% in 1994-95 (projected). The average annual growth rate of this sector experienced a gradual decline from 4% during the First Five Year Plan period to 1.8% during the TFYP period and further to 1.7% during the TFYP period.

When the allocation in agriculture is very low, the real expenditure made in agricultural activities is much lower than that of other sectors. It was observed that only 50% of the allocated expenditure was actually spent for livestock, fisheries and forestry sub-sectors, and 51% for agricultural sector against 68.6% for all sectors of the economy (Table-4). An investigation showed that the achievement of the plan target on development expenditure was higher for physical planning & housing, communication, transport, industries and miscellaneous sectors but power for agriculture (including livestock, fisheries and forestry), labour and health sectors during the TFYP period. This suggests an increase in government expenditure in the urban areas and a consequent decline in the rural areas.

#### DEVELOPMENT STRATEGIES

There are some specific comments on the development strategies adopted in the DFFYP. The Planning Commission may find these comments useful for recasting the plan document. The Comments are given below:

##### 1. Livestock

1.1. One of the main objectives of the DFFYP is to develop cattle and buffaloes for draught purpose. The plan, however, did not allocate funds

for this purpose. In most recent years government has been pursuing the policy of mechanization for tillage operation in the country side. The plan noted that a total number of 3000 power tillers were sold to the farmers in 1988-89 and another fleet of 15000 tillers in 1989-90. Nevertheless, the plan remained silent about the cost of importing those tillers. The socio-economic consequence of tiller mechanization in rural areas is not at all discussed in the plan document.

1.2 The plan allocated 31 per cent of livestock development funds for spill over projects and the rest for new projects. The allocation of 31 per cent of total development expenditure on old unfinished projects is disappointing. The plan did not explain why it was not possible to complete those projects during the TFYP period. This is an indication of failure in implementation of development plans in the livestock sector.

1.3 The plan has given much emphasis on backyard poultry farming to increase the supply of meat and egg for human consumption. Very little attention has been given on commercial poultry farming which should play a vital role in increasing the productivity of the poultry sector. In neighbouring India and Thailand, commercial poultry played a vital role to make those countries surplus in poultry and poultry products in recent years. It is indeed possible to make Bangladesh self-sufficient in meat and egg production through commercialization of the poultry sector. This will facilitate extension of broilers and layers of exotic breed throughout the country and help increase the total output of poultry industry.

1.4 Non-government organizations (NGOs) can play a vital role in developing livestock and fisheries sub-sectors. There are instances of good extension work in some selected rural areas where the NGOs concentrated activities on livestock and fisheries. The plan could take those instances into consideration and work out a mode of operation between government and non-government organizations for livestock and fisheries extension.

1.5 The plan has rightly pointed out the current deficit in cattle and poultry feed, but concentrated more on production of HYV fodder crops to overcome the deficit. In a land-hungry situation, there is a limit of producing fodders to feed livestock species. Therefore, attention should be given to the development of unconventional feed items and large scale production of concentrates from cattle and poultry feed industries. A detailed policy framework followed by an elaborate discussion on those issues is desirable.

## **2. Fisheries**

2.1 The plan has allocated Taka 749 crore in the public sector and distributed this amount among different projects. Marine fisheries contributes 28 per cent to total fish production, but the plan did not allocate any amount for the improvement of catches from this area.

The plan has also allocated Taka 600 crore in the private sector, but the plan did not mention about the type of projects to be initiated in the private sector and expected outcome from those projects. Mere allocation in the private sector does not explain the situation.

2.2 The target for fish production in 1994-95 has been fixed at 12 lakh tonnes. Given the benchmark production of 847 lakh tonnes in 1989-90 and an annual growth rate of 1.4 per cent during the TFYP period, the target of producing 12 lakh tonnes in the terminal year seem ambitious. Considering previous growth rates, a target of producing 10 lakh tonnes in the terminal year would be justifiable.

2.3 Inland capture fisheries produces 51 per cent of total fish. Since the early eighties there has been a gradual decline in fish production from this area. The plan does not provide a logical framework for offsetting this declining trend.

2.4 The plan considered "intensification of aquaculture practices" as a strategy of increasing fish production. Aquaculture represents only 21 per cent of total fish production, while inland capture fisheries and marine fisheries represent 51 and 28 per cent of total fish production respectively. The plan seems to have underestimated the importance of intensifying capture and marine fisheries. On the other side of the coin, there is still scope for extensive fish production in both capture and culture fishery areas. The Planning Commission may consider both expansion and intensification of culture and capture fisheries as a strategy of increasing fish production during the FFYP period.

2.5 The most important objective of the DFFYP is to increase fish production for domestic consumption. The less important one is to increase foreign exchange earnings through export of fish and fishery products. It was observed during the TFYP period that export of fish and fishery products increased significantly with the marginal increase in total fish production. As a result, per-capita consumption declined. In fact, the volume of export increased at the cost of domestic consumption. The DFFYP has set an ambitious target for fish production which will be very

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difficult to achieve. In that case if the export targets are met, there will be a net deficit in the domestic market. The Planning Commission should try to handle this matter with caution.

#### **3. Forestry**

3.1 We need both food and fuel, because we cannot eat our food uncooked. There is however, an acute shortage of fuel in the rural areas. Having no other option the villagers go on procuring fuel wood destroying valuable trees. As a result there has been a gradual decline in village forests. Unless the villagers are guaranteed with other options of fuel, it would be difficult to reverse the declining trend of village forests. The plan emphasized on conservation of village forests, but talked very little about fuel options.

3.2 There has been a cut on import duties for importing wood from outside the country. However, nothing has been done to encourage those industries producing wood substitutes. We need to subsidize home industries producing substitutes for wood with a view to conserving wood trees.

3.3 There are frequent instances of illegal extraction of government forests in the country. Since independence the forest resource of Bangladesh has been so heavily exploited illegally that the tree covered area has come down to less than 30 per cent. There are apprehensions that some of the departmental officials are linked to those illegal exploitation. Unless this malpractice is stopped, it would be impossible to increase net forest area of the country.

3.4 We observe "tree plantation week" every year. Crores of new trees were said to have been planted in the countryside. However, a very high rise in wood prices suggests that those trees did not survive. The plan allocated Taka 219.21 crores for rural plantation. It would be a worthwhile investment if production and plantation of quality seedlings could be ensured.

3.5 The plan has made a special reference to rural poor and landless in relation to forestry development. However, no allocation was made to assist those poor people in forestry activities. It is imperative to make separate allocation for them to encourage them in tree plantation on road sides and on khas land.

#### **CONCLUSION**

Evidence presented in this paper showed that the allocation made to livestock, fisheries and forestry sub-sectors was very low compared to their

contributions in the economy. An increase in allocation to these sub-sectors, particularly to livestock development activities is recommended.

The paper showed further that the government expenditure in agricultural sector has continuously been falling since the Second Five Year Plan period. This decline in public expenditure was followed by the decline in growth rate, and the decline in this sector's contribution to GDP. The paper recommends reallocation of development funds earmarking 33 per cent share to the agricultural sector.

The paper examined the development strategies outlined in the DFFYP in relation to livestock, fisheries and forestry sub-sectors. A few comments were offered on development issues and suggestion were made for improvement. It is expected that due consideration would be give to the suggestions and recommendation made in this paper.

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## FFYP : A REVIEW OF AGRICULTURE SECTOR PLAN

M. HASSANULLAH\*

### *Background and Objectives*

The Fourth Five Year Plan (1990-95) bears special significance because of two reasons :

- a. It is the First Five Year Plan of Twenty Year Perspective Plan (1990-2010 AD) which at the onset intends to remove the basic constraints of growth and development of the economy, and
- b. There is a growing concern to preserve and sustain the really commendable improvements achieved in recent past.

As the draft plan is presented for public discussion there seems to have a genuine desire among the planners to make the plan adequate and rational in its objectives, policies and projects so that the plan could eventually be presented as a written document to guide the development endeavours. It will be a pleasure if this review would contribute to this process.

A national development plan is a vast document in which enormously diversified issues and subject matters are articulated. This review is kept limited to agriculture sector. Before reviewing the plan it is required to specify what is expected of the plan document and what this review aims at. To the author the agriculture sector plan is expected to present the emage of a desired type of agriculture, a set of objectives followed by a set of policies, a set of strategies as a basis of organizing development efforts, and a list of projects/programmes portfolio. Having these statements one can judge whether the plan is adequate, clear and consistent what is achieved and what is intended to be done and how. The objectives of this review are :

- a. to identify the perspective of development policies and strategies adopted for the growth and development of agriculture sector,
- b. to examine the clarity and adequacy of the adopted policies and strategies,

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\* AST CIDA

- c. to examine its internal consistency, consistency among the subsectors, with other sectoral plans as well as with macro and perspective plans,
- d. to identify the conceptual problems in designing the plan, and
- e. to recommend measures for the improvement of the plan and its presentation as a public document.

*Conceptual and Analytical Problems*

In recent past subsectors of agriculture emerged as independent and multiple identities in terms of academics, institutional arrangements and development pursuit. Consequently, planning exercise also suffered from this problem. There is no overall sectoral plan for agriculture stating general objectives, policies and strategies. Either explicit or implicit there are separate objectives, policies, and strategies for crop agriculture, for food management, for flood control and water resources agriculture, for fishery agriculture, for livestock agriculture, for forestry agriculture and for rural development and agriculture institutions. It is therefore difficult to make a sectoral review or analysis.

Within each sub-sector there is a problem of how or on what basis the activities are to be organized i.e. either commodity-wise such as food crops, horticultural crops, etc. or function-wise such as research, extension, inputs etc. The statements fiddled around both ways.

Objectives, policies, strategies and activities are most frequently interchangeably used. It often difficult to comprehend as to what the planners actually wanted to mean. It seems subsectoral planners used a standard formate but they understood and explained the terminologies variously. For example in crop subsector it is stated that development strategies will emphasize, give importance to or focus on certain things, but the adopted strategies are not straight way presented. Whatever presented implicitly may either be a strategy, a policy or a function. Policies and programmes are often mentioned or often ignored. In food management, objective and strategies are synonymously stated. In flood control and water resources objective policies and strategies are specifically stated. In fisheries policies and strategies are synonymously understood. Similar confusion prevails in other subsectors. Besides there is a tendency to stretch the list of constraints, objectives, policies and strategies without giving much thought on their appropriateness and relevancy to planning.

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### *Development Objectives*

As stated earlier that there is no overall development objectives for the agriculture sector as a whole. The development objectives of all subsectors are presented in Appendix A. It seems that objectives of crop subsector are stated in such a broad term that they may represent sectoral objectives, viz.

1. Attain self-sufficiency in food along with increased production of other nutritional crops.
2. Ensure sustain agricultural growth through more efficient and balanced utilization of country's land, water and other natural resources.
3. Promote rapid and appropriate technological transformation,
4. Diversify agricultural production specially along nutritional line,
5. Contribute to increased foreign exchange earning through agricultural exports,
6. Contain areas under cereals (specially rice) within limits of soil and ecological balance in order to progressively release land for other crops especially legumes and fodder crops and achieve cereal production target through increased per hectare output,
7. Reduce rural poverty and promote income, equality over socio-economic groups and regions,
8. Promote economic and employment opportunities and access to resources such as credit for landless and small farmers and other disadvantaged groups specially in backward regions.

The purpose of citing the objectives here is to draw attention specially to confusion between objectives and strategy. Objectives 3, 4 and 6 are in fact strategies of organizing activities for achieving objective one. Are these objectives clear, coherent and consistent to lead agriculture to a higher level of development? It needs re-examination.

### *Image of Agriculture*

The confusions and ambiguity emerged because of lack of vision about the nature of agriculture aimed at. In fact neither perspective plan and macro plan nor the sub-sectoral plans attempted to postulate the nature of future agriculture, the plans would intent to create. However there is a passing remark that a nutrition based agriculture will be promoted. The concept was not explained any where. If it means that farmers will grow all

that is required for a balanced diet then it implicitly advocate for subsistence farming which can not possibly help achieve such objectives as attainment of rapid growth, export, income maximization and employment generation etc. Had there been a clear perception about the type of agriculture opted there would have no confusion in choosing appropriate objectives, policies programme or projects.

#### *Sub-sector Plans*

Since there is no overall sectoral plan separate analysis of subsectoral plans will be a lengthy discussion. Some general observations are made irrespective of sub-sectors.

Attainment of food self-sufficiency in terms of cereals has been perceived as precondition for shifting crop cultivation toward agro-industrial and exportable crops or to produce non-crop agricultural produces. In spite of three decade's effort it could not be achieved. The plan now redirects attention to non-cereal and non-crop food. Review of past trend shows that in spite of crop diversification efforts the crop base did not expand and except potato per capita production of all other crops declined. Except shrimp production, non-crop agricultural products recorded similar situation. The basic reason of failure is the adoption of a wrong strategy of "endeavouring to produce everything every where". Sometimes competitive enterprises such as sugarcane and jute/ aus/ wheat etc., shrimp and paddy, fish and boro, etc. pursued in the same place. Such endeavour make people swing from one enterprise to other having no net gain in national productivity. This is not possible because soil and climatic variations and learning habits of people puts limit on increasing productive efficiency. On the other hand, it caused a nation-wide expansion of all public services escalating tremendous increase of cost of services. Future plans need to shift agricultural production strategy to regionalization based on comparative advantages of soil, climate, communication and market potentials and readjustment of research, extension, education and other support services accordingly. Corollary to this strategy there must be clear commitment to such policies as commercialization (produce most profitable enterprises), specialization (produce one or few with highest efficiency), mechanization (for quick and precise operation). Without high productivity entering into market economy, both inside and outside country, is not possible. Success of cereal production will also depend on the same strategy and policies. When a farmer maximizes production of a few enterprises he can maximise his income and he can buy all other goods and services for better nutrition, health, education and housing. Such a

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commercial agriculture can also maximise employment generation and wages of agricultural labours and create a real market economy.

Land, being scarce resources, needs preservation, development and judicious and profitable use. The proposition of further (progressive) reduction of land ownership ceiling is a contradiction to free economy, to what is admissible in industry, business and real estate and a limitation to the growth of commercial agriculture and in fact an unlawful exercise. Private property ownership should be equitable among difficult sectors for balanced growth and development. The plan did not recognize the need for the policy of preserving potential agricultural land from alternative uses through adopting a upazila based land use plan with legal support.

Privatization of production and sales of all agricultural inputs should be much faster than what is presented in the plan. Emergence of commercial agriculture will depend on the growth of agro-business. It may be mentioned here that in USA about 13% population is providing services to only 2.5% of the population who are engaged in farming. Farmers must get all inputs and services at call. All public investments in production and sales of agricultural inputs, either through government organizations and NGOs, must cease by the end of this plan period. This will help many people earn livelihood on agri-business than on farming. However the policy of free import of variety of fertilizers or any other inputs as a means of easing out supply bottleneck may jeopardise local input industries and therefore deserve serious consideration. It should be noted that free import of crude oil ruined oil industry of the country and made the country dependent on soyabean and palm oil whose raw materials are not likely to be produced in the country in near or distant future.

The plan proposes to increase efficiency of extension system by employing graduates as extension workers. In this context it is contradictory to establish new ATIs or improve its curricula. Rather plan could include a policy of converting some of ATIs as college of the agriculture for offering under-graduate education to eligible Block Supervisors.

It is difficult to exactly identify the policies and strategies of research as these are not explicitly stated. An elaborate but specialized research system has been emerged. The contribution of research system to agricultural development will be maximized if agriculture research is addressed to current problems of declining per unit productivity, profitability, ecological imbalance, organic recycling, declining soil fertility, environmental pollution, etc. This requires system approach but the plan

did not recognize the need for adopting problem based multi-discipline and multi-institutional programming, broadening mono to multi-discipline institutional framework, inter-institutional sharing of highly scarce resources, etc.

Endorsing the unsatisfactory functioning of T & V system the plan expressed the need to improve the extension system and employ graduates as Block Supervisor. It is regrettably commented that extension requirements in terms of approach, issues, policies and strategies are grossly misunderstood. The plan advocates to adopt "Target Group" approach shifting primary responsibility from Block Supervisors to Group Leaders. The perspective plan and the macro plan emphasized the strategy of human resource development (HRD) and extension contributes greatly to HRD as it aims to educate the entire rural population for higher productivity and better living. Extension need to adopt such strategies as maximizing direct contact, utilizing existing socio-economic groups, expanding technological base from crops to all aspect of agricultural production and consumption, using multiple methods of communication, organizing and guiding people to help solve local problems, sharing responsibility with NGOs. Extension work in this country is guided by borrowed concepts and methods and intuitions of few genius. There is no research on extension to generate appropriate concepts and methods locally. The plan treated it neglectedly, though it bears the main responsibility to motivate farmers for implementing the plan.

One important agricultural extension issue is : should there be separate extension systems for crops, livestock, forests, fisheries, water resources, etc. or the agricultural extension, presently working for crop development should be reorganized to assume those responsibilities. As usual this FFYP also ignored the issue. Without addressing this issue those sub-sectors will further lag behind.

The plan recognized the need to reorganize and strengthen the higher agricultural education in the way of providing physical facilities and improvement of teaching including establishment of two more colleges of agriculture. The higher agricultural education have been producing highly specialised graduates in crop science, animal science, veterinary science, fisheries, forestry, agricultural economics and rural social science, agricultural engineering and technology. As proposed in the plan if a graduate is appointed as Block Supervisor none of those specialized graduates is expected to be adequately and broadly qualified to become extension worker. The plan escaped the problem. Nor it speaks about how

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to resolve the dual administration of the existing colleges and expand their programmes horizontally and vertically.

Farmers are not expected to increase production much beyond subsistence requirement if they do not get break even price at harvest. Benevolence does not work here. The plan recorded the failures and recognized the declining trend of profitability of crops. Government purchase of different commodity never succeeded to ensure the procurement price to the real growers. Jute, cotton, sugarcane, silk worm, fruits, tobacco production are suffering time and again for the same problem. Marketing and price policies are not adequate rather far away to ensure greater share of consumer Taka to the producers. It requires reconsideration.

Quantity and quality loss of food in government storage amount about Tk. 580 crores a year, if it runs at capacity. It is one of the most effective system of making all walks of people corrupt. Should future development plan overthrow the system except maintaining an efficient safety storage to be operated through commission agents? Should restriction on food storage be removed and private sector storage system, for not only the cereals but also non-crop products, be promoted and supported. Entire food management plan needs recasting.

The FFYP objectives of rural development and institution are illusive and repetitive. The number and types of existing rural institutions leads to conclude that the country has become over institutionalized. Since resources are channelized through them, they are really a "resource receiving mechanism" as often termed by experts. In a country of high population, mini farming and fragmented holding importance of institution is enormous in accomplishing many tasks. The concern of FFYP should be to clean and operationalize the existig institutions so that they can play significant role for the emergence of commercial agriculture in subsequent plan periods instead of creating new ones.

#### *Inter Sub-sectoral Consistency and Balance*

Whatever done for crop sector development in terms of area expansion, technology used are recognized as constraints to attaining desired level of production in livestock, fisheries and farm forestry. An integrated development plan can only resolve the internal conflicts. No policy and programme is observed to handle those internal conflicts and turn them to be mutually supportive.

Although one of the strategy of macro plan is to achieve inter sectoral balance in growth but sub-sectoral allocation does not reflect any endeavour to this end. Third and Fourth 5-year Plan allocations to different sub-sectors are as follows :

| Sub-sectors       |  | % of total allocation |       |
|-------------------|--|-----------------------|-------|
|                   |  | TFYP                  | FFYP  |
| Crop              |  | 13.40                 | 3.66  |
| Livestock         |  |                       | 1.43  |
| Forestry          |  |                       | 2.07  |
| Fisheries         |  | 16.80                 | 14.18 |
| Water Resources   |  | 16.80                 | 14.18 |
| Rural institution |  | 4.40                  | 3.88  |
| Total             |  | 34.60                 | 27.06 |

It seems that overall sectoral allocation declined and inter-sectoral balance is overlooked. Low and declining per capita availability of milk, meat, fish, eggs, etc. testify the statement.

#### *Inter-Sectoral Complementarity*

Agriculture sector aimed to produce more exportable products and primary products for processing. Therefore it should be complemented by trade and industry. Performance evaluation shows that share of gross value added of agricultural raw material based industry has gone down from 65.80% in 1965 to 45.14% in 1982. Which is expected to go down further in late nineties due to lack of sustained growth in agriculture. Consequently, import substitution industries were emphasized. It may also be true that failure of industries to create effective demand for raw materials may also cause slow growth of primary industrial products of agriculture.

Since trade is entirely in the private sector the FFYP did not present any thing to this document. It is not clear how trade is going to respond to the need of agriculture sector for expanding of exports. However, the issue deserve serious consideration.

#### *Consistency Between Perspective, Macro and Sectoral Plan*

Some inconsistencies are observed among perspective, macro and sub-sectoral plans. For example one of the major objective of the perspective and macro plan is poverty alleviation. The agriculture sector plan did not try to formulate specific policies and strategies of formulating and developing plans to provide more benefits to small and marginal farmers and agriculture labours. There is also no definite commitment in agricultural extension to bring them under its clientele system.

One of the general strategy of perspective and macro plan is to integrate sector-based planning with socio-economic group based planning. This is not attempted in planning for the development of agriculture sector nor it is endorsed as the basis of sub-sectoral plans. It requires serious consideration whether such integration is non-functional or ignored in sector or sub-sector planning.

#### *Project Portfolio*

The plan document does not provide any programme or project portfolio. Consequently it is not possible to judge as to whether the choice of projects or programmes is consistent to the adopted objectives, policies and strategies. Some of the sub-sectoral plans give brief on future programmes while some do not. Approximately 45% allocation is for the spill over projects. In Third 5-yr Plan 51.1% plan outlay was actually available. Shortfall is expected to be more in next plan period because of present international crisis. The prospect of inclusion and implementation of new projects is indeed small. Therefore functionally FFYP is not expected to be much different from TFYP.

#### *Implementation of the plan*

Many programmes and projects are implemented over the years. The plan gave an account of undertaking 4370 schemes and actual completion of 398 schemes during 1985-1990. The final evaluation shows the actual achievement is far less than what was expected in the plan period. It may be pointed out that many countries brought revolutionary change in a sector or sub-sector by implementing a single project, for example Massagana 99 in Philippines, milk production in India, tea rehabilitation in Kenya, etc. During last 3 decades many programmes and projects were implemented but self-sufficiency in food is never achieved. This raise the question "Are we really doing what we speak to do? The plan recognizes the problems and adopted a strategy of establishing an "Efficiency Culture". Unfortunately neither the macro plan nor the sectoral plan spelled out the policies and programmes or measures to be adopted in FFYP to establish an "Efficiency Culture". It needs serious consideration. Otherwise we will know everything, we will do everything, but we will not achieve anything.

#### *Suggested Measures*

Following measures are suggested to make the plan adequate, internally consistent and appropriate in its objectives, policies, strategies and programmes :

1. Framework of perspective plan need a little more elaboration depicting

the desired nature of future agriculture in the light of national needs and aspiration.

2. Agriculture component of macro plan needs to **reflect** major components of agriculture sector.
3. A sectoral plan for agriculture needs to be prepared.
4. Adequacy and appropriateness of objectives, policies, **strategies** and programmes needs re-examination and reformulation.
5. Sub-sectoral plans needs to be re-formulated either on commodity-wise or function-wise.
6. All plans needs to be supported with a list of projects or programmes giving a small brief of each.
7. Inconsistency among sub-sectoral and sectoral and macro or perspective plans need re-examination and removal.

#### Appendix A

#### DEVELOPMENT OBJECTIVES OF FFYP

##### *A. Crop Agriculture*

1. Attain self-sufficiency in food
2. Ensure sustain agricultueal growth
3. Promote rapid and appropriate technological transformation
4. Diversify agricultural production specially along-nutritional line
5. Contribute to increased foreign exchange earing
6. Contain area under cereals (specially rice) within limits of soil and ecological balance in order to release land for other crops
7. Reduce rural poverty and promote income equality over socio-economic groups and regions
8. Promote economic and employment opportunities.

##### *B. Food Management (implicit)*

1. Expanding of storage capacity (implicit)
2. Reducing cost of food movement
3. Reducing storage loss
4. Expanding food base to non-cereals
5. Emphasizing non-rise food materials
6. Establishing food security emphasizing cereals
7. Changing food habit

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*C. Flood Control and Water Resources*

1. Rapid increase in irrigated area to sustain technological transformation
2. Provision of supplementary irrigation facilities along with complementary FCD facilities
3. Provision of timely and dependable supply of irrigation water
4. Regulation and control of floods and drainage, salinity, tidal water inundation and river erosion
5. Promotion of efficient use of water resources in respect of time and spatial location
6. Generation of productive employment opportunities for rural people

*D. Fisheries*

1. Increase fish production for domestic consumption
2. Improve socio-economic condition of fishermen and other engaged in fisheries and create additional employment opportunities
3. Enhance fisheries resource base
4. Enhance fish production and management technologies
5. Train required manpower at all levels
6. Increase foreign exchange earning
7. Improve general environment and public health

*E. Livestock*

1. Increase supply of livestock products
2. Expansion of employment opportunity both full time and supplementary
3. Increase supply of draft power

*F. Forestry*

1. Rehabilitate or reafforest the denuded and degraded forest land
2. Bring all possible vacant public and private lands under tree cover
3. Meet basic needs of all forest products by integrating trees with farming and traditional land use.
4. Improve general environment for supporting agricultural and biological production
5. Create employment opportunities for landless poor marginal farmers and women

6. Adapt different wood conservation techniques

*G. Rural Development and Institutions*

1. Reduce rural poverty by means of increasing gainful employment and income opportunities on a sustained basis through expansion of productive sector
2. Develop rural institutions
3. Improve technology and skills for productive activities and ensure better access for rural poor to the means of production
4. Facilitate agricultural development through institutional support and expansion of irrigation
5. Improve basic physical infrastructure (roads and markets) in the rural areas
6. Promote participation of women in rural development

## GROWTH PERFORMANCES OF MAJOR AGRICULTURAL CROPS, REGIONAL DIFFERENCES IN AGRICULTURAL PRODUCTIVITY : IMPLICATIONS FOR AGRICULTURE SECTOR PLANNING IN BANGLADESH

MD. IQBAL HOSSAIN\*

### INTRODUCTION

During the early stages of most developing countries an efficient economic development strategy is to a large extent determined by the performance of the agricultural sector [27; 533-65, 12]. Due to its prime importance the agricultural sector must play a dynamic role in the total process of economic growth if such growth is to benefit those who are poorest and indeed if it is to benefit the entire country.

Bangladesh is predominantly an agricultural country. The importance of agriculture with respect to its contribution to production, consumption, employment and export can hardly be overstated. In the year 1985-86 its share to GDP was 46.8 per cent. It varied from 53.0 per cent in 1969-70 to 46.8 per cent in 1985-86 [7]. This indicates that there has been hardly any structural change in the economy of Bangladesh. Due to this reason the overall rate of growth of the economy varied erratically mainly with the variation of agricultural output. About 84 per cent of population is rural and 74 per cent of rural labour force is directly employed in agriculture. The country's export earnings from agriculture is 70 per cent [8].

Bangladesh has perennial shortage of foodgrains. To feed the vast population of this country the government has to import foodgrain from other countries through international agencies every year. Most of the export earnings are spent to purchase foodgrains. This is due to low productivity in agriculture. If comparisons are made along the regional lines

\*

Associate Professor, Department of Agricultural Statistics, Bangladesh Agricultural University, Mymensingh.

there lies significant differences in productivity among different regions of Bangladesh. Therefore a critical examination of the characteristics of the agricultural sector that relate to agricultural production is very essential.

Generally, economic, social and institutional factors are specific to regions while economic factors are specific to cases. If it is observed that certain regions have experienced a high rate of growth for most of the crops then region specific factors are important. On the other hand if certain crops have high rates of growth irrespective of location then economic factors seem to be dominant. In order to isolate the regional effect from economic policy effect it is necessary to study the individual crop in all regions. For example, a high rate of expansion of total output in a region does not necessarily mean that the region has favourable setting for growth. Rather a large portion of its land may be devoted to a crop which has a high growth rate. Similarly the growth rate for a particular crop may reflect a high rate of expansion in the region where it is grown.

The objective of the present study is to analyse the long term growth performances of major agricultural crops and to measure the differences in agricultural productivity within a general framework considering the various sources of differences among regions and over time in Bangladesh.

In this study it is hypothesized that the sources of variation in output can be classified into three categories namely input effect, regional effect and time effect.

#### METHODOLOGY AND DATA BASE

In Bangladesh about 88 per cent of the cropped land are covered by rice, wheat and jute although the number of crops grown are not few. For the present study we have selected 8 different varieties of rice and wheat, other cash crops like jute, sugarcane, tobacco, different varieties of pulses and oilseed, potatoes, and chillies. All these crops 96 per cent of the total cropped area in Bangladesh. So it is assumed that the remaining 4 per cent of the cropped area will not affect the result of the study.

The area and production data of the selected crops of four regions were obtained from various publications of Bangladesh Bureau of Statistics, Government of Bangladesh. The data collected for this study covers a period 39 years from 1949-50 to 1987-88. The rate of growth of production has been estimated for the long periods 1949-50 to 1987-88, 1960-61 to 1987-88, 1964-65 to 1987-88, 1975-76 to 1987-88 and for the decades 1949-50 to 1959-60, 1960-61 to 1969-70 and for the half decades 1975-76 to 1987-88. In calculating the growth rates for the long series one may

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argue about the inclusion of abnormal years like 1970-71 (cyclone), 1971-72 (year of liberation), 1973-74 (drought) and floods (1973-74). Since these years fall near the middle of the series the growth rates calculated using these figures will not be very different from actual growth rate. The choice of 1964-65 as one of the base periods is due to the fact that the efforts to improve performance of the agricultural sector through seed water technology were undertaken from that time.

To estimate that contribution of various sources of growth such as area, yield and cropping pattern the additive decomposition scheme proposed by Minhas and Vaidyanathan [ 20 ] has been applied :-

$$\begin{aligned} P_t - P_o &= A_t \sum W_i C_{it} Y_{it} - A_o \sum W_i C_{io} Y_{io} \\ &= (A_t - A_o) \sum W_i C_{io} Y_{io} + A_t \sum W_i C_{io} (Y_{it} - Y_{io}) \\ &\quad + A_t \sum W_i Y_{io} (C_{it} - C_{io}) + A_t \sum W_i (Y_{it} - Y_{io}) (C_{it} - C_{io}) \end{aligned}$$

Where,

$P_t$  = Crop output in year t

$P_o$  = Crop output in year o

$A_t$  = Gross cropped area in year t

$A_o$  = Gross cropped area in year o

$Y_{it}$  = Yield rate of crop i in year t

$Y_{io}$  = Yield rate of crop i in year o

$C_{it}$  = Proportion of area under crop i in the year t

$C_{io}$  = Proportion of area under crop i in the year o

$W_i$  = Constant price weight of crop i

To estimate the contribution of area, yield and cropping pattern of individual crop the model needs some adjustment [ 33 ] :

$$\begin{aligned} P_t - P_o &= Y_{io} [(A_t (1+C_{io}-C_{it})-A_o)] \\ &+ A_t (1+C_{io}-C_{it}) (Y_{it}-Y_{io}) \\ &+ A_t Y_{io} (C_{it}-C_{io}) + A_t (Y_{it}-Y_{io}) (C_{it}-C_{io}) \end{aligned}$$

Where,

$A_o$  = Crop area in year o

$A_t$  = Crop area in year t

All other notations are same as used in the previous model.

The analysis is based on 9 crops. It would be better if price structure could be included in the scheme. But due to non-availability of district level price data for different crops of the base year period constant price weight  $W_i$ 's are considered for both base year and terminal year  $W_i$ 's are prices of different crops for the year 1985-86.  $C_{io}$ 's and  $C_{it}$ 's are the proportion of area covered by the different crops at the base period (1968-69) and terminal period (1986-87). These are also the three years average of each crop. It should be kept in mind that the analysis expresses the relative importance of the four factors in explaining the change in output for each crop but does not tell why the output is at a particular level.

We use the production function approach to examine the differences in agricultural production between regions and over time based on pooling time-series and cross-section data.

To obtain the estimates of the parameter the simplest method is to apply ordinary least squares to the pooled data. But it has been argued that the application of OLS on pooled data gives poor estimates of the parameter or even estimates incompatible with theoretical expectations [1; 585-612, 26; 359-82, 22]. One of the possible explanations is that the application of OLS on pooled data does not take care of the effects which are specific to cross-section units (and/or over time).

The assumption of a constant individual effect may be accomplished by the use of dummy variables [23; 44-56, 13; 34-53, 28; 584-605, 22]. But the use of dummy variables appear to reflect too much and then to reduce the co-efficients to too low a level. Alternative approach which includes the effect of region and time is to relax the constancy and this is known as 'residual model'.

The residual model is formulated by

$$Y_{rt} = aX_{rt} + U_{rt} \dots\dots\dots (1)$$

Where  $U_{rt}$  is a random variable for region  $r$  and year  $t$ . These residuals represent the effect of the variation which cannot be explicitly included in the model. In pure cross section analysis it may be assumed that there are large number of factors which affect the region and the value of the dependent variable for each of them but which can not be included as independent variables and these may be summarised as random disturbance. Similarly in pure time series analysis only an assumption may also be made about the stochastic disturbances. When the time series and

cross section are pooled the assumption on disturbance term become more complicated. It is also possible that same variables affect a region more or less in the same manner over time. Some other omitted variables which are peculiar to years affect the different regions in a similar way. Other omitted variables which affect both region and time simultaneously may be captured as a third error component. Then the disturbance term can be broken into three components  $U_{rt} = U_r + V_t + W_{rt}$ .

Where  $U_r$  represent the regional effect,  $V_t$  represent the time effect and  $W_{rt}$  represent the residual effect that varies with both region and time. This model is known as error component model and is widely used [29, 31; 261-75, 32; 55-72, 26; 359-82, 22, 10; 257-74, 2; 21-49, 19; 385-395].

It should be noted that the estimates derived from the use of OLS are subject to influences of some other variables which are removed in error component model which explicitly includes both region and time. Thus the nature of change in the estimates depends on the influence present. But it is argued that although some coefficients are reduced while others increase as a result of transformation but on the whole their efficiency is increased [1, 23, 22].

One of the basic assumption of error component model is that the correlation of the disturbance term remains unchanged no matter how far apart, the time disturbance are. This sharply contradicts the general consensus that the value of produces with time distance involved.

The final question is that whether to use a fixed effect model or a random effect model. It is generally believed that if  $U_{rt}$  can be regarded as random drawings from the same probability distribution and are not correlated with independent variables then the error component model is appropriate. If the randomness of  $U_{rt}$  cannot be modeled explicitly then dummy variables can be used to get best linear unbiased estimates [24; 69-85, 18].

#### THE MODEL :

Let the total number of regional units ( $r$ ) =  $R$  and total number of time periods ( $t$ ) =  $T$ .

Let  $Y_{rt}$  be an observation on a dependent variable for the  $r$ th regional unit for the  $t$ th time period,  $x_{jrt}$  be an observations on the  $j$ th non stochastic regressor for the  $r$ th regional unit and  $t$ th time period. Then the model can be written as

$$Y_{rt} = a + b_j x_{jrt} + U_{rt} \dots\dots\dots (2)$$

Where  $U_{rt} = U_r + V_t + W_{rt}$

The  $U_r$ ,  $V_t$  and  $W_{rt}$  components of the random error  $U_{rt}$  are all random and independent of each other with zero mean and variances  $\sigma_u^2$ ,  $\sigma_v^2$  and  $\sigma_w^2$  respectively. It is also assumed that

$$E U_r U_r = 0 \text{ for all } r = r'$$

$$E V_t V_t = 0 \text{ for all } t \neq t'$$

$$E W_{rt} W_{rt} = E W_{rt} W_{rt}' = E W_{rt} W_{rt}' = 0 \text{ for all } r = r' \text{ and } t = t'$$

In matrix notation the model can be written as

$$Y = \begin{bmatrix} Y_{11} \\ Y_{12} \\ Y_{it} \\ Y_2^1 \\ Y_{22} \\ Y_2^t \\ YR^t \end{bmatrix} (1x) = \begin{bmatrix} 1 & X_{11}^1 & X_{it}^N \\ 1 & X_1^T & X_1^N \\ 1 & X_2^T & X_2^N \\ & & \\ 1 & X_{RT}^1 & X_{RT}^N \end{bmatrix}$$

$$U = \begin{bmatrix} U_1 + V_1 + W_{11} \\ U_1 + V_2 + W_{12} \\ \dots \\ U_1 + V_1 + W_{IT} \\ \dots \end{bmatrix}$$

$$\begin{bmatrix} U_2 + V_1 + W_{21} \\ \dots \\ UR + VT + WRT \end{bmatrix}$$

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The model defined in (2) can be rewritten as

$$Y = (1X) b + U$$

Where  $Y$  is a  $RT \times 1$  vector,  $1$  is  $RT \times 1$  vector of constant coefficients,  $X$  is  $RT \times N$ ,  $a$  is scalar and  $b$  is the  $N \times 1$  vector and  $W$  is an  $RT \times 1$  vector of random disturbances.

Finally let us consider regional factors which are assumed to be constant over time ignoring the time factor for the present time.

Therefore  $U_{rt}$  can be broken into two factors

$$U_{rt} = U_r + W_{rt}$$

Where  $U$  and  $W$  are considered statistically independent

i.e.  $E U_r W_{rt} = 0$  for all  $r$  and  $t$ .

Let us assume that there is no serial correlation among  $W_{rt}$ . Also they are independent of each other.

So  $E W_{rt} W_{rt} = \sigma_w^2$  for all  $r = r$  and  $t = t$

$E W_{rt} W_{rt} = 0$  for all other cases.

Similarly  $E U_{rr} = \sigma_u^2$  for all  $r = r$  and  $E U_{rr} = 0$  otherwise.

This assumption implies heteroskedasticity i.e. disturbances are not constant and there is cross sectional independence.

$$\text{Let us define } \sigma^2 = \sigma_u^2 + \sigma_w^2 \quad P = \frac{\sigma_u^2}{\sigma_u^2 + \sigma_w^2} = \frac{\sigma_u^2}{\sigma^2}$$

Then from the relation  $E U_r W_{rt} = 0$  we have the variance-covariance of the residual as follows :

$$E U_r U_r = \Omega = \sigma^2 \begin{bmatrix} M & 0 & 0 & \dots & 0 \\ M & 0 & M & \dots & 0 \\ 0 & 0 & 0 & \dots & 0 \end{bmatrix}$$

Where is a  $R \times R$  matrix and

$$E u_r u_r' = \sigma^2 M = \sigma^2 \begin{bmatrix} 1 & P & \dots & P \\ P & 1 & \dots & P \\ & & \dots & \\ P & P & \dots & 1 \end{bmatrix}$$

Where  $M$  is a  $T \times T$  matrix.

In the case of pure cross sectional study we have only one time period for each region. Then each  $M$  will have only the upper left hand entry. Therefore we have

$$\Omega = \sigma^2 I$$

Where  $I$  is a  $R \times R$  identity matrix.

In case of pure time series analysis we have only one time period. We can not decompose the residual into regional and random effect. Here also we have

$$\Omega = \sigma^2 I$$

Where  $I$  is a  $T \times T$  identity matrix.

#### METHOD OF ESTIMATION

The GLS estimator of model can be obtained avoiding involve in  $\sigma^2$  and  $\sigma^2$  by applying OLS to suitably transformed variables [18].

The transformation of the variables can be obtained by taking quasi deviations

$$Y_{it} = Y_{it} - \bar{C}Y$$

$$X_{jrt} = X_{jrt} - \bar{C}X_{jr}$$

Where  $r = 1, 2, \dots, R$        $t = 1, 2, \dots, T$

$$C = 1 - \frac{\sqrt{1-P}}{1-P+TP} = 1 - \frac{\sigma_w^2}{\sigma_w^2 + T \sigma_\mu^2}$$

The estimates of  $\sigma_w^2$  and  $\sigma_u^2$  can be obtained from OLS residuals

$$\sigma_w^2 = \frac{1}{R(T-1)} \sum \sum (\hat{u}_{it} - \bar{\hat{u}}_r)^2$$

$$\sigma_u^2 = \frac{1}{T} \sum \frac{T}{R-1} \{ (\bar{\hat{u}}_r - \bar{\hat{u}})^2 - \sigma_u^2 \}$$

The estimates obtained from transformed variables are free from regional effect.

If time component is included in the disturbance term it is required to transform the newly transformed variables by taking a further quasi deviations. The estimates obtained by applying OLS on these finally transformed variables are free from both time and regional effect.

#### THE DATA

There are many variables which affect the agricultural production and thus create regional variation. To list some of the variables are : (1) land area, (2) quality of land, (3) irrigation and extent of control over water supply, (4) type of irrigation, (5) fertilizer quantity, (6) pesticides, (7) labour hours, (8) mechanical power, (9) livestock, (10) seed type and quality-high yielding or traditional, (11) rain fall and (13) socio economic factors e.g. cooperatives, credit availability, transportation, storage, marketing facilities, fragmentation and size of land holdings. Variations in agricultural production may be due to any or all of these varies from place to place and from time to time.

To run production function with agricultural data, many variables can not be included due to non-availability of relevant data. Some of these variables are hardly measurable. So, they are omitted. The exclusion of these variables has some important effect on the estimates of the function. If the omitted variables are related with included variables the ordinary least squares estimates will be biased upward or downward depending on the nature of the relationship between the dependent variables and omitted variables and between included variables and omitted variables. For example, if labour quality and quantity are inversely related the exclusion of quality of labour will underestimate the quantity of labour. Similarly if the quality and quantity of land are positively related the quality of land will be overestimated due to omission of land quality. When the time-series and cross-section data are pooled together the problem becomes more complicated. Estimates of the co-efficients are likely to be more biased. The estimates obtained by Hoch [13; 34-53] and Mundlak [23; 44-56] by

applying co-variance method are claimed to have this bias.

Due to non-availability of data only five variables are included in the present study. For the present study total agricultural output is taken as dependent variable and four other variables such as land area, irrigated area, fertilizer and agricultural labour force are taken as independent variables for running the production function. The data are collected for the study from various publications of Bangladesh Bureau of Statistics [4, 5, 6, 7]. This covers a period of ten years from 1976-77 to 1985-86.

The data on area and production are available in Agricultural Year book of Bangladesh for each crop and for each year by region. But the price data for each crop by region are not available. Finding no other alternatives, government published data on total agricultural output have been used in this study. Since the price of different commodities in different regions fluctuates over time, proper weight should be used for aggregation of heterogeneous products. There lies a high correlation between consumer price index and harvest price index. Due to non-availability of consumer price index of the required years, the total output of different regions have been divided by corresponding harvest price index.

Data on total acres of land and total acres of irrigated area are available for each crop by region for each year in Statistical Year Book of Bangladesh. The total acreages are converted into total hectares. Both the data are of gross measures that include multiple cropping.

Data on fertilizer distribution are available by region for each year separately. The sum of all fertilizers in metric tonnes for each region and year is taken as a measure of fertilizer variable.

There is no regular data available for agricultural labour force in Bangladesh except for census years of 1974 and 1981. In this study it is assumed that change in agricultural labour force took place at an exponential rate of growth. Method of interpolation and extrapolation technique have been used to estimate the total number of agricultural labour force in different regions for each year.

The Data of some variables are not available in cases of Chittagong Hill-Tracts which are included in Chittagong region and similarly data for Kishoreganj and Jamalpur regions are included in Mymensingh region.

## RESULTS AND DISCUSSIONS

### *Production Trend of Major Crops*

Bangladesh economy remained stagnant for a long period. The sluggish growth in agriculture is mainly responsible for the stagnation of economy [16; 29-55].

The stagnancy in the agricultural sector is not a new phenomenon. From the beginning of this century when the government started keeping the records of production it has come into the light. From the Blyn's study of agricultural trends in India it is seen that during the first half of the century, the food production in the greater Bengal registered a decline of 0.73 per cent. The main reason of this decline was due to the 0.76 per cent per year decline in the productivity of rice. Most of the rice growing areas are situated in the eastern side of Bengal [9]. Islam's study covering the Bengal province for 1920 to 1946 also shows that foodgrain production could not keep pace with the population growth. Per capita availability of agricultural production registered the highest decline in Chittagong Division. Value of production of all crops increased at 0.7 per cent per year as against an increase of population of 1.3 per cent.

The trend remained the same in the erstwhile East Pakistan upto the end of the fifties. In 1959-60 the production of rice and sugarcane exceeded the 1949-50 level by about 15 per cent but the production of all other crops remained at a lower level. Due to the drastic drop in mortality rates the growth of population started accelerating (2.5 per cent per annum) which had far reaching impact on per capita availability of foodgrain. The factors behind this poor performance were (i) non-availability of more land for cultivation, (ii) traditional means of production, and (iii) frequent natural calamities. At that time the total cropped area was around 27 million, use of chemical fertilizer was almost nil and irrigations was practised in only about 0.5 million acres from traditional wells, mostly in Dinajpur and Bogra [15; 39-70]. In the year 1958-59 there were only 772 low lift pumps which irrigated about 30 thousand acres of land [11].

A significant breakthrough in agricultural progress started during the second plan period of Pakistan regime (1960-61 to 1964-65). The trend rate of growth of production was estimated at 3.2 per cent for rice, 5.1 per cent for non-cereal crops and 3.5 per cent for cash crops against a rate of population growth of about 3 per cent per annum [11]. This high growth rate was due to the increased modern irrigation facilities, use of improved seeds, chemical fertilizers and improvement in cultural practices (transplantation in place of broadcasting). During this period the area under irrigation increased from 0.5 to 1.3 million acres, consumption of chemical

fertilizers increased from 11.22 to 45 thousand nutrient tons and the cropped area covered by plant protection measures from 0.4 to 48 million acres. Increased facilities of irrigation made it possible for multiple cropping. As a result Aus area increased from 6.3 to 8.5 million acres and Boro area increased from 0.92 to 2.2 million acres during 1959-60 to 1969-70 period. Improved cultural practices increased the per acre production of Aman rice from 11.42 maund to 13.0 maunds. During the second plan period some improved local varieties were introduced. By 1964-65 about 20 per cent rice area was covered by better quality rice seed [11]. The HYV rice seed for rice and wheat which marked the green revolution in South-East Asia were introduced in erstwhile East Pakistan during the mid-sixties. The tempo of growth which was attained in early sixties could not be maintained afterwards. Upto 1969-70 the agricultural value added grew at 2.6 per cent per annum. Until 1975-76 it remained stagnant. Hossain estimated a trend rate of growth from 1964-65 to 1977-78 at 0.91 per cent per annum for all crops and 1.4 per cent for rice and wheat. [15]. From 1975-76 the growth of production of cereal maintained the trend of early sixties. It grew at a rate of about 3.0 per cent per annum between 1975-76 to 1983-84 [16]. If we discard the period 1971-73, the growth of cereal production came out to be 2.9 per cent which is greater than the rate of population growth.

Table-1 shows both the long and short term trend of growth of production of major crops grown in Bangladesh for different points of time. If we observe the columns (i), (ii) and (iii) of Table-1 it appears that only in case of wheat, boro crop and potato the growth rate of production exceeded the population growth rate (2.5 per cent) during these long periods. But the area under these crops were not significant in comparison with the total cropped area. The growth rate of production of other minor crops were not at all satisfactory. Only in case of wheat and boro crops the growth rate of production exceeded the population growth rate markedly. Due to the liberation war and some other natural calamities the production fell short for some years. The production of output reached the pre-liberation level not before 1975-76. But during the period of 1975-76 to 1987-88 we get more or less the similar picture as in the other long periods. During this period the growth rate of production of cereal exceeded the population growth rate. But this happened due to the increased production of wheat and boro crop. In the year 1986-87 the area under these two crops were 1.45 million acres and 4.08 million acres respectively. The performance of rape and mustard was also better in comparison with the other three long periods. If we look at the last four columns of Table-1 it appears that the production

### *Hossain : Agricultural Productivity*

performance of different crops was much better during the period 1960-61 to 1969-70. Although the growth rate of production of rice (2.37 percent) did not exceed the population growth rate but it was close to the population growth rate.

From the above discussion it can be concluded that the secular decline in the availability of foodgrains continued even after the British period. The only exception was the period between 1959-60 to 1964-65 (Table-2). The above analysis reveals some disconcerting phenomenon. During the sixties the cropping intensity increased substantially due to rapid expansion of irrigation which helped multiple cropping. But increase in cropping intensity was rather little in the seventies despite modest increase in irrigation (Table-2 and 3). This indicates that although irrigation helps in bringing more cropped area under HYV, the scope for increasing gross cropped area through irrigation is limited. Thus the growth of rice output in future should come mainly through increasing the average yield of rice per acre. The increase in the average yield of rice depends not only on the shift of rice area to HYV but also on increasing the yield rate of both local variety and HYV. It has been mentioned that during the early sixties the yield rate of local variety increased substantially through the extensive use of modern inputs. But after the introduction of HYV the yield of local varieties declined. The reason behind may be that better quality land has been diverted to HYV. There was also a tendency to use modern inputs in HYV extent because entire research and extension were devoted to HYV only. However, the more disconcerting phenomenon is that the yield rate of HYV paddy was only 38 maunds per acre during the late seventies whereas the standard yield rate of HYV should be 50 maunds per acre as set by the experimental station and extension agencies under optimal condition.

The relative importance of various rice crops in terms of their weights in total rice area and production is given in Table-14. It appears that except HYV boro and aus there is very small change in the relative importance of various rice crops over the decades in term of their acreage and production relative to total rice acreage and production. Still local Aman crop is dominant both in acreage and production. This indicates that there is a little change in the existing cropmix. Still the production technology maintains the existing seasonal structure. Upto 1986-87 there was only 22 per cent of total cropped area under HYV rice [8].

### *Contributions of Various Component Elements to the Growth of Output:*

Table-4 shows the percentage change in total crop output for the

periods 1967-70 to 1985-88 in Bangladesh. It is observed from the table that during the period the total crop output increased by 35 per cent, i.e. a change of 1.82 per cent per annum. Of this 1.82 percentage change in total output the share of area was 25.53 per cent (or 0.47 percentage points) and that of yield was 52.50 per cent (or 0.96 percentage points). The effect of cropping pattern was 13.76 per cent (or 8.22 percentage points). The rest 8.18 per cent (or 0.15 percentage points) went to the interaction between yield and cropping pattern. In other words about 76 per cent of additional crop output was obtained through the extension of area and improvement of yield per acre during the period.

The relative contribution of various sources of components such as area, yield, cropping pattern and interaction between yield and cropping pattern for four regions are also presented in Table-4. The top of the line against each region represents the proportion of additional output that can be attributed to the various sources of growth. The figures in the parentheses represent the contribution of various factors in terms of percentage points to the overall rate of growth of total output.

It appears from the table that the percentage in output in south-west and north-west regions exceeded the national change in total output during the period 1967-70 to 1985-88. The main contributory factors for the change in total output were the improvement of yield rate in all the regions and particularly the expansion of area (44.54 per cent) in south west region.

The contribution of cropping pattern of the total increase in output was 13.76 per cent (or 0.26 percentage points) in Bangladesh during the period. The proportion of area covered by Aus and Aman rice declined from 27.00 per cent to 22.00 per cent and from 49.00 per cent to 45.00 per cent respectively. But the share of boro rice and wheat registered a significant increase from 6.50 per cent to 13.00 per cent and 0.87 per cent to 4.40 per cent respectively. The proportion of area under jute also declined from 8.00 per cent to 6.00 per cent. Mild increase in area occurred in cases of mustard, potato and pulse.

Generally the shifting of area depends on the price of the crops. Different regions derive irrigation and other benefits from different measures. They have their own choice in producing different crops according to their advantage in response to change in the relative price of different crops. The result confirmed these a priori expectations. The contribution of cropping pattern was not much to the total growth of output at the national level. But in case of south-east region, although the change

in total output was lower than the change in national output, the cropping pattern alone contributed 0.53 percentage points out of total change in output of 1.74 per cent. The proportion of area under rice declined from 84.00 percent to 82.00 percent. But proportion of area under wheat increased from 0.31 per cent to 1.40 per cent, mustard from 0.77 per cent to 1.56 per cent and that for the pulse from 0.77 per cent to 4.91 per cent. The contribution of the interaction term to the total change in output was 8.18 per cent in case of Bangladesh which was rather small and may be neglected for practical purposes.

Table-5 shows the relative contribution of component elements to the change in output for individual crops in Bangladesh. It may be observed from the table that the largest contribution to the change in output of boro came from area expansion i.e. 63.74 per cent, while for aus 721.00 per cent and aman 107.92 per cent increase in output came from increased productivity. During the period the growth of wheat was 60.56 per cent. The respective contributions of area and productivity to the change in output were 37.16 percent and 59.00 per cent. The relationship between area and productivity was most noticeable for potato and jute. The contribution of area to the change in output of potato was 78.77 per cent whereas the production of jute decreased during the period. The share of area was 791.87 per cent for the decline to the change in production of jute which offset the limited positive impact of improvement in yield (784.96). Except in aus and jute in no other cases the effect of cropping pattern and interaction played dominant role to the change in production during the period.

For individual crop in different regions the increased production in the case of boro rice mainly came from area expansion and that of aman from increased productivity over the period (Tables 6,7,8 and 9). Except in the north-east region the production of aus declined in all the regions. Decline in area under aus was the main contributory factor for the decline of production. Improvement of yield rate was the main contributory factor for increased production in north-east region. As for wheat both area expansion and improvement in yield rate came out to be the major contributory factors for the significant increase of wheat production. As for other crops, the potato and mustard production increased in all the four regions. The increased production of potato and mustard originated both from the area expansion and improvement in yield rate in south-east and south-west regions. But in the north-east and north-west regions increased production of potato occurred from the area expansion only. Except pulse

in south-east region the performance of other minor crops are very disappointing. Decline in area was the major contributory factor for the decline in production in all the regions.

#### RESULTS OF PRODUCTION FUNCTION

Cobb-Douglas production has been constructed for aggregate total output using time-series and cross-section data of 18 old districts of Bangladesh for the year 1976-77 to 1985-86. The form of the equation is

Where  $Y$  = Total aggregate output in hundred million taka expressed in 1976-77 harvest price index.

$X_1$  = Total cropped area in thousand hectares.

$X_2$  = Total irrigated area in thousand hectares.

$X_3$  = Fertilizer in thousand metric tonnes.

$X_4$  = Total agricultural labour force in thousands.

$T$  = Time trend

$U_n$  = Residual.

It is assumed that for the regions the same production function applies.

The estimates of production function have been presented in Table-10. Four sets of estimates have been presented (1) using ordinary least squares on the pooled data, (2) using dummy variable for the districts, (3) ordinary least squares on the transformed variables removing regional effect and (4) ordinary least squares on the transformed variable removing both regional and time effect.

It has already been mentioned that OLS estimates are subject to bias because of the omission of relevant variables which are region specific as well as time specific and also due to the special problems associated with the time-series and cross-section data. For example the co-efficient of fertilizer has a negative sign which is unexpected. Such unexpected results for labour force from the OLS were obtained by Balestra Nerlove [1], and Mukhopadhyay [22]. Time trend is included in the model as a proxy variable for technological change occurred over the years in Bangladesh. Use of fertilizer has increased substantially over the years in Bangladesh. One possible reason for the negative coefficient of fertilizer is that time trend picks up much of the effect of technological change. When time trend is excluded from the model fertilizer co-efficient becomes positive but not significant (Table-11). Another possible reason is that in our study we have considered all the crops. In most of the crops little fertilizer is used.

Fertilizer is mainly used in boro paddy. Production function has also been constructed for boro paddy. The OLS estimate for fertilizer shows a highly significant value at one per cent level of significance with expected positive sign (Table-13). But the coefficient of labour force comes out to be negative which is unexpected. The exact amount of labour force for boro crop is not available. The labour force variable for boro paddy is taken as the ratio of the area under boro crop to total cropped area multiplied by the total labour force. The specification of the variable in this way might have effected the coefficient of labour force variable for boro crop. The ordinary least squares estimates of the variables do not take into account the regional effect. To introduce regional effect dummy variable for the regions have been used. The estimates are given in columns 4 and 5 (Table-10 and Table-11). The results show that not only the co-efficient for irrigation and fertilizer were further reduced but the coefficient of labour force becomes negative and significant. A similar reduction of the coefficients were also observed in the study of Balestra Nerlove [1] and Mukhopadhyay [22]. One possible reason for this negative coefficient is that we have used aggregate labour force data instead of effective hours of work. It is likely that region with smaller labour force per unit of output may utilise the labour force more effectively. It may also happen that region with higher effective hours of work would have higher output. Therefore omission of effective hours of work of labour force might have effected the OLS estimates with dummy variables. Moreover, dummy variables reflect much more than regional effect and also they are wasteful with respect to degrees of freedom [1].

The results of the transformed variables are supplied in columns 6, 7, 8 and 9 (Table 10, Table 11 and Table 12). The transformation has been performed by decomposing the residuals into two components—regional and random assuming the time component is negligible (columns 6 and 7). The value of P becomes 0.39 which shows that 39 per cent of the variance of the combined disturbance term are attributed to region specific time invariant component. When time component is removed from the variables the value of P becomes 0.36 (Table-10) and 0.52 (Table 11). A comparison of the results before and after transformation show the expected positive sign for all the co-efficients and all the co-efficients are significant at one per cent level of significance as a result of transformation when both regional and time effect are considered. The size of the co-efficients expect that of land show further reduction as a result of transformation (Table-11). Similar change of the variables took place in other studies using either analysis of

co-variance or error component model [13, 1, 22]. The possible reason for this reduction in coefficient may be that the variables which are excluded such as quality variable, efficiency variable are region specific and have all positive association with and less variation than included inputs whose coefficients are decreased. When the transformation is performed on the variables, efficient estimates have been obtained. The difference in the size of the co-efficient before and after transformation shows the region specific factor such as quality, efficiency etc. When these variables are taken into account there should be larger application of those inputs whose coefficients are decreased and smaller application of those inputs whose co-efficients are increased [23; 44-56]. Therefore the results suggest that for increased production in Bangladesh the inputs like fertilizer, irrigation and labour force should be increased substantially.

Amongst the coefficients which are significant the relative importance of land followed by fertilizer and irrigation are noticeable. When the marginal physical products are calculated at the mean level of respective inputs (boro paddy) the consistency of the coefficients appears to be more apparent. It shows that the marginal physical product of irrigation is 0.22 which is one third of the marginal product of land (0.67). The marginal physical product of fertilizer is also high (0.45) because of low level of fertilizer use [17]. There also lies a wide variation in marginal physical products in the use of different inputs among the different regions.

The econometric technique employed in error component model enables us to derive regional effect and time effect from the residuals of production function (Table-11, column 9). The estimates of regional effect and time effect are presented in the last column of Table 13. These estimates are obtained on the basis of production function constructed for 18 district of Bangladesh for the year 1976-77 to 1985-86. Since the estimates are based on limited variables the implication of these estimates should be interpreted as the broad indicators rather than specific one as a magnitude of regional differences in production. The estimates varies from 2.78 to 4.01. The implication of regional effect and time effect is that if Chittagong uses the same quantity of land, irrigation, fertilizer and labour force as Faridpur the output of Chittagong will be increased by 44 per cent in comparison to Faridpur. Similarly Kusthia will produce less than 23 per cent of output with the same inputs than Noakhali. It should be noted that the regional effect and time effect presented in Table-13 shows only some quantitative indication of relative efficiency of different regions.

## CONCLUSION

The analysis of growth reveal some disconcerting phenomenon. Due to low base of production significant growth of production of wheat and moderate growth of production of potato and mustard failed to bring any perceptable change in the total crop output in Bangladesh. The poor production performance of individual crops leads to an unsatisfactory growth in total crop output.

The production technology maintains the existing seasonal structure. Still local aman crop is dominant both in area and production. Except HYV boro and aus there is very small change in their relative weight of various crops over the decades in terms of their weight in total rice area and production. The increase in agricultural production is mainly attributed to the improvement of yield rate both nationally and regionally. But policies taken for yield improvement in few crops such as rice, wheat, jute with little or no attention to other crops have failed in achieving a desirable rate of growth in total output due to yield effects. This is due to the greater reliance on the area expansion under seed based technology with little attention to the socio-economic and organizational factors including the development of appropriate supporting services like research, extension, credit, etc.

The analysis based on macro-economic data provides us with some important implications of the study. Government of Bangladesh is giving priority in its annual development plan to increase food production and also to minimise regional gap in production level by allocating various inputs of production to regions at different levels. From our findings it shows that fertilizer and irrigation are very important inputs in increasing the agricultural production in Bangladesh. In this study individual regions are recognised according to their efficiency in input use. Therefore to minimise regional productivity differences the Government of Bangladesh should give due importance to regional efficiencies and the marginal products of different input use before allocating development resources to different regions. But those should be considered with caution because in this study many variables which may create regional differences in productivity were not included. Therefore extensive study should be undertaken to find out the causes of regional agricultural productivity differences. The Fourth Five Year Plan of the crop sector in agriculture is not sensitive to these factors which were responsible for less than optimum growth in this sectors. The planners would do well to pay some heed to this kind of discriminant analysis of regional productivity.

**Table-1 : Agricultural Production Function Using Time Trend : Cobb-Douglas (Dependent Variable is Agricultural Production)**

| Variable              | Original variable |         | LSDV <sup>a</sup> |             | ECM-1 <sup>b</sup> |             | ECM-2 <sup>c</sup> |             |
|-----------------------|-------------------|---------|-------------------|-------------|--------------------|-------------|--------------------|-------------|
|                       | Co-effi-<br>cient | T-Value | Coeffi-<br>cient  | T-<br>Value | Coeffi-<br>cient   | T-<br>Value | Coeffi-<br>cient   | T-<br>Value |
| Constant              | -2.531            | 13.81   | -3.621            | 2.37        |                    |             |                    |             |
| Land                  | 0.484             | 8.67    | 0.996             | 8.85        | 0.771              | 9.80        | 0.703              | 10.93       |
| Irriga-<br>tion       | 0.128             | 6.43    | 0.106             | 3.38        | 0.139              | 6.18        | 0.107              | 5.80        |
| Fertilizer            | -0.021            | 1.18    | -0.052            | 2.18        | -0.021             | 1.00        | 0.014              | 0.78        |
| Labour<br>Force       | 0.329             | 5.64    | 0.073             | 0.38        | 0.037              | 0.53        | 0.095              | 1.68        |
| T                     | 0.024             | 7.67    | 0.024             | 6.67        | 0.020              | 7.48        | 0.019              | 3.58        |
| R <sup>2</sup>        | 0.94              |         |                   |             | 0.99               |             | 0.97               |             |
|                       |                   |         |                   |             | 0.99               |             | 0.97               |             |
| F-value               | 537.63            |         | 519.08            |             | 6253.73            |             | 1042.55            |             |
| Degrees of<br>freedom | 5,174             |         | 21,158            |             | 6,174              |             | 6,174              |             |
| Log (Likely<br>hood)  | 154.78            | 90.497  |                   |             | 212.28             |             | 251.48             |             |
| Akaike<br>criterion   | 148.78            | 68.50   |                   |             | 206.28             |             | 245.48             |             |

a = Least squares dummy variable.

b = Error component model 1 removing regional effect.

c = Error component model 2 removing both regional effect and time effect

**Table-2 : Agricultural Production Function : Cobb-Douglas (Dependent Variable is Agricultural Production)**

| Variable                  | Original variable |         | LSDV             |             | ECM-1            |             | ECM-2            |             |
|---------------------------|-------------------|---------|------------------|-------------|------------------|-------------|------------------|-------------|
|                           | Co-effi-<br>cient | T-Value | Coeffi-<br>cient | T-<br>Value | Coeffi-<br>cient | T-<br>Value | Coeffi-<br>cient | T-<br>Value |
| Constant                  | -2.625            | 12.45   | -0.815           | 1.65        |                  |             |                  |             |
| Land                      | 0.628             | 10.36   | 1.137            | 9.12        | 0.699            | 11.32       | 0.710            | 16.99       |
| Irrigation                | 0.143             | 6.27    | 0.208            | 6.74        | 0.099            | 7.30        | 0.072            | 7.36        |
| Fertilizer                | 0.023             | 1.19    | 0.034            | 1.50        | 0.060            | 7.31        | 0.048            | 8.27        |
| Labour<br>force           | 0.149             | 2.41    | -0.655           | 3.72        | 0.162            | 4.89        | 0.144            | 6.38        |
| R <sup>2</sup> (adjusted) | 0.92              |         | 0.96             |             | 0.99             |             | 0.95             |             |
| F value                   | 493.96            |         | 222.66           |             | 5927.0           |             | 781.72           |             |
| Degrees<br>of freedom     | 4,175             |         | 21,158           |             | 5,175            |             | 5,175            |             |
|                           | 0.92              |         |                  |             | 0.45             |             | 0.52             |             |
| Log likely-<br>hood       | 128.55            |         | 210.627          |             | 170.22           |             | 243.63           |             |
| Akaike<br>criterion       | 123.55            |         | 188.63           |             | 165.22           |             | 238.63           |             |

Hossain : Agricultural Productivity

Table-3 : Agricultural Production Function (Boro Crop) : Cobb-Douglas  
(Dependent Variable : Total Boro Output)

| Variable                  | Original variable |         | LSDV         |         | ECM-1        |         | ECM-2        |         |
|---------------------------|-------------------|---------|--------------|---------|--------------|---------|--------------|---------|
|                           | Co-efficient      | T-Value | Co-efficient | T-Value | Co-efficient | T-Value | Co-efficient | T-Value |
| Constant                  | -0.709            | 3.14    | -0.165       | 3.19    |              |         |              |         |
| Land                      | 0.820             | 7.26    | 0.681        | 3.39    | 0.720        | 4.63    | 0.634        | 13.40   |
| Irrigation                | 0.151             | 2.47    | 0.186        | 3.43    | 0.179        | 3.38    | 0.210        | 4.28    |
| Fertilizer                | 0.120             | 4.88    | 0.088        | 1.75    | 0.102        | 3.72    | 0.101        | 2.91    |
| Labor force               | -0.020            | 0.17    | 0.111        | 0.58    | 0.062        | 0.41    | -0.001       | 0.06    |
| T                         | 0.021             | 3.45    | 0.247        | 3.35    | 0.024        | 3.96    | 0.015        | 1.177   |
| R <sup>2</sup> (adjusted) | 0.97              |         | 0.98         |         | 0.99         |         | 0.96         |         |
| P                         |                   |         |              |         | 0.38         |         |              |         |
| F value                   | 1436.0            |         | 528.15       |         | 4137.0       |         | 924.00       |         |
| Degrees of freedom        | 4,175             |         | 22,157       |         | 6,174        |         | 6,174        |         |
| Log likelihood            | 45.13             |         | 96.73        |         | 87.23        |         | 99.85        |         |
| Akaike Criterion          | 39.13             |         | 73.73        |         | 81.23        |         | 93.85        |         |

Table-4 : Marginal Physical Products (in '000' tonnes) of Cropped Area, Irrigation and Fertilizer at Mean Levels (Boro Crop).

| Regions    | Cropped area | Irrigation | Fertilizer | Regional and Time effect |
|------------|--------------|------------|------------|--------------------------|
| Dhaka      | 0.751        | 0.240      | 0.302      | 3.250                    |
| Mymensingh | 0.641        | 0.210      | 0.520      | 3.013                    |
| Tangail    | 0.859        | 0.259      | 0.476      | 3.053                    |
| Faridpur   | 0.807        | 0.352      | 0.484      | 2.778                    |
| Chittagong | 0.761        | 0.233      | 0.430      | 4.010                    |
| Noakhali   | 0.714        | 0.244      | 0.463      | 3.428                    |
| Sylhet     | 0.487        | 0.171      | 1.390      | 3.418                    |
| Rajshahi   | 0.670        | 0.220      | 0.216      | 3.133                    |
| Dinajpur   | 0.775        | 0.264      | 0.056      | 2.924                    |
| Rangpur    | 0.742        | 0.239      | 0.192      | 3.177                    |
| Bogra      | 0.867        | 0.256      | 0.188      | 3.142                    |
| Pabna      | 0.826        | 0.289      | 0.211      | 2.901                    |
| Khulna     | 0.593        | 0.176      | 0.272      | 3.466                    |
| Barisal    | 0.669        | 0.224      | 0.376      | 3.165                    |
| Patuakhali | 0.469        | 0.253      | 0.290      | 3.258                    |
| Jessore    | 0.824        | 0.339      | 0.135      | 3.010                    |
| Kushtia    | 0.694        | 0.230      | 0.018      | 2.793                    |
| Comilla    | 0.757        | 0.232      | 0.261      | 3.139                    |
| Bangladesh | 0.670        | 0.220      | 0.450      |                          |

Table-5 : Trend Rate of Growth of Production of Major Crops in Different Points of Time in Bangladesh

|            | (Per cent per annum) |         |         |         |         |         |         |         |
|------------|----------------------|---------|---------|---------|---------|---------|---------|---------|
|            | 1949-50              | 1960-61 | 1964-65 | 1975-76 | 1949-50 | 1960-61 | 1975-76 | 1980-81 |
|            | to                   | to      | to      | to      | to      | to      | to      | to      |
|            | 1987-88              | 1987-88 | 1987-88 | 1987-88 | 1959-60 | 1969-70 | 1976-80 | 1987-88 |
| Aus        | 1.776                | .844    | .592    | -.638   | 2.963   | 2.685   | .015    | -1.371  |
| Aman       | 1.147                | .834    | 1.096   | 1.146   | -.120   | .300    | 1.461   | 1.075   |
| Boro       | 8.394                | 8.643   | 7.326   | 7.767   | .944    | 17.892  | 3.004   | 7.004   |
| Rice       | 2.122                | 1.877   | 1.928   | 2.132   | .612    | 2.388   | .864    | 1.595   |
| Wheat      | 13.416               | 17.527  | 19.172  | 14.843  | 1.603   | 2.457   | 39.069  | .652    |
| Cereal     | 2.357                | 2.204   | 2.337   | 2.644   | .763    | 2.429   | 1.949   | 1.877   |
| Jute       | .095                 | -.379   | -.449   | 2.112   | 2.296   | 2.675   | 11.896  | 4.039   |
| S. Cane    | 2.153                | .955    | -.140   | .914    | 1.542   | 8.047   | 2.153   | .280    |
| Tobacco    | .311                 | 1.735   | 1.177   | -.707   | -2.498  | 5.22    | -2.605  | -3.478  |
| Chillies   |                      | -.810   | -1.292  | -1.173  | -       | 2.727   | .260    | .713    |
| Potato     | -                    | 4.812   | 3.603   | 3.603   | -       | 13.179  | 2.459   | 1.511   |
| Pulse      | -.00336              | .210    | .331    | .552    | -3.844  | 4.436   | -.091   | 5.866   |
| R. Mustard | 1.593                | 1.908   | 2.061   | 4.561   | -2.293  | 3.076   | 2.973   | 9.911   |

Estimated by fitting same logarithmic trend line.

Table-6 : Area, Production and Yield Rate of Local and HYV Rice in Bangladesh

| Area                            | 1957    | 1962-63 | 1967-68 | 1977-78 | 1985-86 |
|---------------------------------|---------|---------|---------|---------|---------|
| (.000 acre)                     | to      | to      | to      | to      | to      |
|                                 | 1959-60 | 1964-65 | 1969-70 | 1979-80 | 1987-88 |
| Local rice                      | 20,343  | 24,183  | 24,271  | 21,189  | 18,116  |
| HYV rice                        | Nil     | Nil     | 424     | 3,768   | 7,691   |
| Total                           | 20,343  | 22,183  | 24,695  | 24,958  | 25,807  |
|                                 |         | (1.75)  | (2.17)  | (0.11)  | (0.48)  |
| Production<br>(.000 long terms) |         |         |         |         |         |
| Local rice                      | 7,667   | 9,841   | 10,745  | 9,142   | 8,104   |
| HYV rice                        | Nil     | Nil     | 616     | 3,506   | 6,834   |
| Total                           | 7,667   | 9,841   | 11,360  | 12,649  | 14,938  |
|                                 |         | (5.12)  | (2.91)  | (1.08)  | (2.40)  |
| Yield (monds.<br>per acre)      |         |         |         |         |         |
| Local rice                      | 10.26   | 12.08   | 12.05   | 11.75   | 12.17   |
| HYV rice                        | -       | -       | 39.54   | 25.33   | 24.18   |
| All rice                        | 10.26   | 12.08   | 12.52   | 13.79   | 15.76   |
|                                 |         | (3.32)  | (0.72)  | (0.97)  | (1.93)  |

Figures within parentheses for total rice area, production and average yield of all rice show the implied compound growth rate per annum over preceeding periods.

Source : [3, 8].

Hossain : Agricultural Productivity

Table-7 : Trend in Cropped Area and Rice Area in Bangladesh Agriculture

|  | 3—years average          |                          |                          |                          |                          |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|  | 1957-58<br>to<br>1959-60 | 1967-68<br>to<br>1969-70 | 1977-78<br>to<br>1979-80 | 1980-81<br>to<br>1982-83 | 1984-85<br>to<br>1986-87 |
| Not cropped area<br>(000 acres)                    | 20,253                   | 21,712                   | 20,789                   | 21,213                   | 21,631                   |
| Cross cropped<br>area (000 acres)                  | 25,883                   | 31,805                   | 31,174                   | 32,688                   | 33,631                   |
| Cropping intensity<br>(per cent)                   | 128                      | 146                      | 150                      | 154                      | 155                      |
| Rice area as<br>per cent of gross<br>cropped area  | 78.6                     | 77.6                     | 80.1                     | 79.0                     | 76.5                     |
| HYV rice area<br>as per cent of<br>gross rice area | Nil                      | 1.7                      | 15.1                     | 22.8                     | 28.1                     |

Source : [3, 5, 8].

Table-8 : Relative Contributions of Various Component Elements to the Change in Output in Different Regions of Bangladesh. 1967-70 to 1985-88

| Region     | Per cent<br>change in<br>output | Area   | Yield   | (Percent per annum) |                  |
|------------|---------------------------------|--------|---------|---------------------|------------------|
|            |                                 |        |         | Cropping<br>pattern | Inter-<br>action |
| Bangladesh |                                 | 25.550 | 52.490  | 13.760              | 8.180            |
|            | 1.834                           | (.468) | (.961)  | (.262)              | (.149)           |
| Sout East  |                                 | 24.710 | 44.050  | 30.630              | .600             |
|            | 1.744                           | (.431) | (.768)  | (.534)              | (.011)           |
| South West |                                 | 44.535 | 43.636  | 9.384               | 2.717            |
|            | 2.011                           | (.896) | (.872)  | (.0188)             | (.055)           |
| North East |                                 | 12.532 | 66.382  | 16.659              | 4.429            |
|            | 1.314                           | (.165) | (.872)  | (.219)              | (.058)           |
| North West |                                 | 10.602 | 55.910  | 16.060              | 17.426           |
|            | 2.135                           | (.226) | (1.194) | (.343)              | (.372)           |

Figures within parentheses indicate per cent contributions to the change in output of individual crops.

**Table-9 : Relative Contribution of Different Component Elements to the Growth of Output of Individual Crops of Bangladesh : 1967-70 to 1986-88**

| (Per cent per annum) |                                  |          |           |                  |              |
|----------------------|----------------------------------|----------|-----------|------------------|--------------|
| Crops                | Percentage change in crop output | Area     | Yield     | Cropping pattern | Inter-action |
|                      |                                  | -370.93  | 721.10    | -212.00          | -38.18       |
| Aus                  | 0.1202                           | (-.446)  | (.867)    | (-.255)          | (-.0459)     |
| Aman                 |                                  | 20.29    | 107.92    | -23.74           | -4.470       |
|                      | 0.9510                           | (0.193)  | (1.027)   | (-0.226)         | (-.043)      |
|                      |                                  | 63.74    | 25.68     | .880             | 1.825        |
| Boro                 | 8.7880                           | (5.598)  | (2.257)   | (.773)           | (0.160)      |
|                      |                                  | 23.429   | 89.346    | -9.952           | -2.824       |
| Rice                 | 1.8061                           | (.423)   | (1.613)   | (-0.179)         | (-.0509)     |
|                      |                                  | 37.164   | 59.01     | 1.675            | 2.155        |
| Wheat                | 60.5710                          | (22.51)  | (35.74)   | (1.015)          | (1.306)      |
|                      |                                  | 791.87   | -784.96   | 78.18            | 14.90        |
|                      | -0.1068                          | (-0.849) | (.842)    | (-0.0838)        | (-0.016)     |
| Sugar cane           |                                  | -3.966   | 102.47    | 1.60             | -0.114       |
|                      | -0.3639                          | (.0145)  | (-0.373)  | (-0.0058)        | (.0004)      |
| Tobacco              |                                  | 107.36   | -7.287    | -0.0724          | .0003        |
|                      | 0.3698                           | (0.397)  | (-0.0269) | (-0.0003)        | (.0000013)   |
| Chillies             |                                  | 81.82    | 17.60     | 0.611            | -0.0338      |
|                      | -1.31564                         | (-1.676) | (-0.232)  | (-0.00804)       | (.0004)      |
| Potato               |                                  | 78.77    | 20.67     | .522             | .0372        |
|                      | 2.4889                           | (1.96)   | (0.515)   | (0.0130)         | (0.0009)     |
| Pulse                | 2.6920                           | 118.39   | -22.67    | 4.62             | .334         |
|                      |                                  | (3.188)  | (-0.611)  | (0.124)          | (-0.00899)   |
| Rape and             |                                  | 52.73    | 46.29     | .819             | .164         |
| Mustard              | 2.9459                           | (1.553)  | (1.364)   | (.0241)          | (.0048)      |

*Hossain : Agricultural Productivity*

Table-10 : Relative Contribution of Different Component Elements to the Growth of Output of Individual Crops of North East Region : 1967-70 to 1986-88

| Crops            | (Per cent per annum)             |           |           |                  |              |
|------------------|----------------------------------|-----------|-----------|------------------|--------------|
|                  | Percentage change in crop output | Area      | Yield     | Cropping pattern | Inter-action |
| Aus              |                                  | -2742     | 142.419   | -11.609          | 3.386        |
|                  | 1.1104                           | (-0.280)  | (1.453)   | (-0.118)         | (-0.0346)    |
| Aman             |                                  | -13.261   | 151.281   | -33.094          | -4.937       |
|                  | 0.5128                           | (-0.0679) | (0.775)   | (-0.169)         | (-0.0253)    |
| Boro             |                                  | 56.797    | 27.378    | 14.034           | 1.791        |
|                  | 3.3357                           | (1.985)   | (0.913)   | (0.468)          | (0.0597)     |
| Rice             |                                  | 12.371    | 85.976    | 1.351            | 0.302        |
|                  | 1.4145                           | (0.1751)  | (1.216)   | (0.0191)         | (0.0043)     |
| Wheat            |                                  | 39.779    | 57.249    | 1.292            | 1.680        |
|                  | 121.5023                         | (49.074)  | (70.627)  | (1.594)          | (0.2073)     |
| Jute             |                                  | 166.195   | -80.377   | 11.379           | 0.280        |
|                  | 0.5285                           | (-0.1776) | (0.858)   | (-0.122)         | (-0.0299)    |
| Sugar cane       |                                  | 1388.62   | -1284.91  | -0.378           | 0.0756       |
|                  | 0.0081                           | (0.116)   | (-0.1076) | (-0.0003)        | (0.00001)    |
| Tobacco          |                                  | 108.59    | -8.815    | 0.213            | 0.0072       |
|                  | -1.4241                          | (-1.546)  | (0.125)   | (-0.003)         | (-0.0001)    |
| Chillies         |                                  | 90.221    | 9.515     | 0.279            | -0.0146      |
|                  | -1.9381                          | (-1.749)  | (-0.184)  | (-0.0054)        | (0.00028)    |
| Potato           |                                  | 115.363   | -16.466   | 1.153            | -0.0501      |
|                  | 1.9991                           | (2.306)   | (-0.329)  | (0.0231)         | -0.0010      |
| Pulse            |                                  | -44.515   | 144.552   | -0.0409          | 0.0042       |
|                  | -0.387                           | (0.173)   | (-0.560)  | (0.002)          | (-0.00002)   |
| Rape and Mustard |                                  | 41.332    | 57.615    | 0.841            | 0.212        |
|                  | 2.8157                           | (1.164)   | (1.622)   | (0.0237)         | (0.006)      |

Figures within parentheses indicate per cent contributions to the change in output of individual crops.

**Table-11 : Relative Contributions of Different Component Elements to the Growth of Output of Individual Crops of North-West Region : 1967-70 to 1986-88**

| (Per cent per annum) |                                  |          |            |                  |              |
|----------------------|----------------------------------|----------|------------|------------------|--------------|
| Crops                | Percentage change in crop output | Area     | Yield      | Cropping pattern | Inter-action |
| Aus                  |                                  | 97.056   | -27.893    | 28.650           | 2.187        |
|                      | -1.1388                          | (-1.105) | (0.317)    | (-0.326)         | (-0.0248)    |
| Aman                 |                                  | -9.741   | 140.393    | -23.199          | -7.452       |
|                      | 1.178                            | (-0.115) | (1.654)    | (-0.273)         | (-0.088)     |
| Boro                 |                                  | 61.771   | 26.762     | 8.385            | 3.083        |
|                      | 47.807                           | (29.53)  | (12.795)   | (4.008)          | (1.474)      |
| Rice                 |                                  | 7.010    | 105.254    | -8.427           | -3.837       |
|                      | 2.3479                           | (0.165)  | (2.471)    | (-0.198)         | (-0.0901)    |
| Wheat                |                                  | 38.250   | 55.691     | 2.776            | 3.283        |
|                      | 59.594                           | (22.795) | (33.188)   | (1.654)          | (1.957)      |
| Jute                 |                                  | -170.68  | 292.288    | 17.046           | -4.073       |
|                      | .360                             | (-0.615) | (1.055)    | (-0.065)         | (-0.015)     |
| Sugar cane           |                                  | 51.616   | 46.519     | 1.981            | -0.116       |
|                      | -0.6186                          | (-0.319) | (-0.288)   | (-0.0123)        | (0.0007)     |
| Tobacco              |                                  | 245.046  | -146.12    | 1.142            | -0.068       |
|                      | -0.00024                         | (0.585)  | (-0.349)   | (0.003)          | (-0.0002)    |
| Chillies             |                                  | 72.236   | 27.435     | .354             | -0.025       |
|                      | -1.1267                          | (-0.814) | (-0.309)   | (-0.0040)        | (0.0003)     |
| Potato               |                                  | 98.982   | -0.0419    | 1.059            | -0.0001      |
|                      | 1.8377                           | (1.819)  | (-0.000.7) | (0.0195)         | (-0.000002)  |
| Pulse                |                                  | -35.177  | 135.155    | 0.0274           | -0.0004      |
|                      | -0.62917                         | (0.221)  | (-0.850)   | (0.0002)         | (0.00003)    |
| Rape &               |                                  | -16.105  | 117.007    | -0.494           | -0.408       |
| Mustard              | 3.337                            | (-0.537) | (3.904)    | (-0.0164)        | (0.0136)     |

Figures within parentheses indicate per cent contributions to the change in output of individual crops.

Table-12 : Relative Contributions of Different Component Elements to the Growth of Output of Individual Crops of South-East Region: 1967-70 to 1986-88

(Per cent per annum)

| Crops          | Percentage change in crop output | Area     | Yield    | Cropping pattern | Inter-action |
|----------------|----------------------------------|----------|----------|------------------|--------------|
| Aus            |                                  | 192.01   | -182.94  | 74.59            | 16.34        |
|                | -0.5130                          | (0.937)  | (0.937)  | (-0.084)         | (-0.084)     |
| Aman           |                                  | 38.20    | 92.77    | -28.01           | -2.96        |
|                | 0.6315                           | (0.239)  | (0.587)  | (-0.176)         | (-0.0185)    |
| Boro           |                                  | 73.45    | 11.32    | 14.04            | 118.19       |
|                | 8.615                            | (60.328) | (0.976)  | (1.209)          | (0.102)      |
| Rice           |                                  | 25.999   | 90.167   | 012.99           | 03.173       |
|                | 1.5310                           | (0.3987) | (1.38)   | (-0.199)         | (-0.04866)   |
| Wheat          |                                  | 54.69    | 41.73    | 2.106            | 1.476        |
|                | 111.688                          | (61.08)  | (46.606) | (2.35)           | (1.652)      |
| Jute           |                                  | 153.95   | 095.57   | 4.16             | 1.46         |
|                | -1.6253                          | (-2.501) | (.967)   | (-0.0676)        | (-0.0237)    |
| Sugar cane     |                                  | 103.53   | -3.871   | .333             | .0055        |
|                | -1.5548                          | (-1.609) | (0.0602) | (-0.0052)        | (-0.0008)    |
| Tobacco        |                                  | 558.13   | -459.32  | .487             | .709         |
|                | -0.6022                          | (-3.362) | (2.767)  | (-.00294)        | (-0.0043)    |
| Chillies       |                                  | 91.38    | 7.458    | -1.197           | 0.0347       |
|                | -1.5106                          | (-1.380) | (0.113)  | (-0.0181)        | (.0005)      |
| Potato         |                                  | 72.397   | 26.652   | .827             | 0.124        |
|                | 15.0167                          | (3.632)  | (1.337)  | (10.0415)        | (0.0062)     |
| Pulse          |                                  | 146.167  | -49.448  | 3.964            | -0.683       |
|                | 3.7097                           | (5.422)  | (-1.834) | (0.147)          | (-0.0253)    |
| Rape & Mustard |                                  | 87.176   | 10.540   | 2.105            | 0.179        |
|                | 14.3945                          | (12.549) | (1.517)  | (0.303)          | (0.0255)     |

Figures within parentheses indicate per cent contribution to the change in output of individual crops.

**Table-13 : Relative Contributions of Different Component Elements to the Growth of Output of Individual Crops of South-East Region: 1967-70 to 1986-88**

(Per cent per annum)

| Crops            | Percentage change in crop output | Area               | Yield               | Cropping pattern     | Inter-action        |
|------------------|----------------------------------|--------------------|---------------------|----------------------|---------------------|
| Aus              | .2988                            | 32477<br>(0.399)   | 84.046<br>(0.103)   | -13.977<br>(0.172)   | -2.546<br>(-0.0312) |
| Aman             | 1.7812                           | 47.036<br>(0.563)  | 81.442<br>(0.975)   | -24.395<br>(0.292)   | -4.083<br>(-0.0488) |
| Boro             | 13.5346                          | 80.911<br>(12.665) | 15.035<br>(0.235)   | 3.584<br>(0.561)     | 0.470<br>(0.0736)   |
| Rice             | 1.546                            | 51.927<br>(0.803)  | 71.708<br>(1.109)   | (-19.981<br>(-0.309) | -3.653<br>(-0.0564) |
| Wheat            | 35.899                           | 29.631<br>(10.637) | 67.751<br>(24.322)  | 1.035<br>(.372)      | 1.583<br>(0.568)    |
| Jute             | 1.2615                           | -2.876<br>(0.0343) | 108.89<br>(1.299)   | -4.817<br>(-0.0575)  | -1.197<br>(0.0143)  |
| Sugar cane       | -1.8365                          | -52.372<br>(0.962) | 152.402<br>(-2.799) | -0.0552<br>(0.0010)  | .0251<br>(-0.0005)  |
| Tobacco          | 3.942                            | 75.749<br>(2.986)  | 24.068<br>(0.949)   | 0.164<br>(0.0064)    | 0.01988<br>(0.0007) |
| Chillies         | 2.7820                           | -40.99<br>(-1.140) | 141.89<br>(3.947)   | -0.460<br>(-0.0128)  | -0.440<br>(-0.0122) |
| Potato           | 4.1194                           | 57.014<br>(2.350)  | 42.852<br>(1.765)   | 0.0863<br>(0.0036)   | 0.0200<br>(0.0008)  |
| Pulse            | 5.9841                           | 90.093<br>(5.391)  | 2.522<br>(0.1509)   | 7.282<br>(0.436)     | 0.0103<br>(0.0062)  |
| Rape and Mustard | 4.8562                           | 53.459<br>(2.596)  | 45.629<br>(2.216)   | .0710<br>(0.0345)    | 0.0200<br>(0.0097)  |

Figures within parentheses indicate per cent contributions to the change in output of individual crops.

Table-14 : Trend in Consumption of Modern Inputs in Bangladesh Agriculture

| Period  | Chemical fertilizers (lbs per cropped area) | Irrigated area as per cent of cropped area | HYV rice area as per cent of total rice area |
|---------|---|--|--|
| 1950-51 | Nil   | 1.3  | Nil  |
| 1955-56 | 0.14  | 2.1  | Nil  |
| 1960-61 | 5.33  | 2.8  | Nil  |
| 1965-66 | 9.79  | 4.8  | Nil  |
| 1970-71 | 22.44                                       | 9.1  | 4.6  |
| 1978-79 | 48.90                                       | 11.49                                      | 13.57  |
| 1979-80 | 54.94                                       | 12.11                                      | 19.66  |
| 1980-81 | 56.71                                       | 12.45                                      | 21.28  |
| 1981-82 | 52.94                                       | 13.06                                      | 22.23  |
| 1982-83 | 59.33                                       | 13.88                                      | 24.84  |
| 1983-84 | 63.30                                       | 14.37                                      | 24.93  |
| 1984-85 | 85.96                                       | 15.76                                      | 27.15  |
| 1985-86 | 76.92                                       | 15.49                                      | 27.62  |
| 1986-87 | 84.51                                       | 15.58                                      | 29.52  |

Source : BBS [3, 8]

Table-15 : Changes in Crop-Weights in Rice Cultivation in Bangladesh

| Crops       | 1965-66 |            | 1969-70 |            | 1978-79 |            | 1982-83 |            | 1986-87 |            |
|-------------|---------|------------|---------|------------|---------|------------|---------|------------|---------|------------|
|             | Area    | Production | Area    | Production | Area    | Production | Area    | Production | Area    | Production |
| Aman, local | 0.63    | 0.66       | 0.58    | 0.58       | 0.54    | 0.52       | 0.47    | 0.39       | 0.43    | 0.35       |
| Aman, HYV   | -       | -          | 0.01    | 0.03       | 0.03    | 0.07       | 0.10    | 0.15       | 0.11    | 0.16       |
| Aus, local  | 0.32    | 0.28       | 0.32    | 0.23       | 0.28    | 0.19       | 0.25    | 0.15       | 0.22    | 0.14       |
| Aus, HYV    | -       | -          | 0.01    | 0.01       | 0.04    | 0.07       | 0.05    | 0.07       | 0.05    | 0.06       |
| Boro, local | 0.05    | 0.06       | 0.06    | 0.08       | 0.05    | 0.04       | 0.03    | 0.04       | 0.03    | 0.03       |
| Boro, HYV   | -       | -          | 0.02    | 0.07       | 0.06    | 0.11       | 0.10    | 0.20       | 0.13    | 0.23       |
| Total :     | 1.00    | 1.00       | 1.00    | 1.00       | 1.00    | 1.00       | 1.00    | 1.00       | 1.00    | 1.00       |

Notes: All estimates are based on official series of rice production statistics as reported by BBS.

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## POLICIES FOR DEVELOPMENT OF SMALL AND MEDIUM SCALE INDUSTRIES

MUZAFFER AHMAD\*

### INTRODUCTION

Policies are not made in a vacuum nor can they remain static in a changing world. They are products of the socio-political imperatives of the countries concerned and in reality are reflections of broader objectives and priorities of the regime in power. Industrial policy including those with respect to SMIs are no exceptions. The policies and programmes for SMI development in the Fourth Plan has to be viewed in this context.

Small labour-intensive industries have been favoured basically to create employment in an economy with abundant unskilled labour even though such enterprises may not always be supported on economic efficiency grounds. However, low capital requirement, given appropriate market environment, is believed to stimulate growth of numerous indigenous enterprises with wide regional dispersal. This helps to promote balanced growth, more equitable income distribution as well as diversification of the industrial structure which often leads to increased utilisation of national resources. The process, if properly nurtured, can help develop the entrepreneurial and managerial class and boost up capital formation. Such a process creates the basis for transformation from a traditional home-based small industrial units to modern and efficient units using optimal technology. Such transformation even when slow and gradual is certain and cumulative in nature. This lesson is suggested by the experiences of many developing countries which paid inadequate or little attention to SMIs and equated development and industrialisation with growth of large scale industries. As a result of such a policy "a small minority of people in developing countries work with an ever-increasing amounts of capital while the great majority continue to scratch a bare living with a few primitive tools" [1]. This is indeed the experience of Bangladesh. This is certainly symptomatic of inappropriate promotional and regulatory policy pursued by many countries including Bangladesh. Evidence of inappropriate policy

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\* Professor, Institute of Business Administration, University of Dhaka

approach is seen in the resource allocation for the SMI sector as well as the institutional framework for their promotion and regulation. In recent years concern about poverty and inequality in the developing countries have drawn attention to the need for increased absorption of increasing population in efficient non-farm sector, a process which could be a vehicle for transformation of traditional small/rural industries. It is in this context the SMIs are examined in this paper.

*Definitional Issues and Limitation of Data*

Size of manufacturing establishments is measured by labour employed or capital employed. Either measure faces measurement problems as number of employees without differentiation of useful human capital endowed or capital outlay in original, accounting, written down book value or replacement value of the original, create computational biases of one kind or other. However, more often labour employed has been taken as the indicator of size. This bears an assumption of technology neutrality between types and within the same type as well as the technical ability across the board. An index taking all relevant factors into consideration is desirable. But that is not our concern in this paper and hence we shall continue to accept employee-determined size classes with all its limitation.

The studies available on SMIs in Bangladesh have followed a general approach of description of the policies, regulation and promotional measures and reported performance of the sample units according to certain criteria. Hardly any attempt is made to analyse the impact of changing policies in order to examine their effects and effectiveness. The recommendations are based on opinions and reactions of the respondents in the survey. This places a serious constraint as policy recommendations have to be based on a priori judgement of the behavioural reaction of the respondents rather than an analysis of actual impacts vis-a-vis intended impacts keeping SMIs in mind. From the analytical point of view, this serious limitation is overcome by studies made of such policies and measures for promoting SMI sectors earlier and elsewhere.

*Certain a Priori Observations on the Nature and Prospects of SMI*

SMIs differ in many respects amongst and between themselves in terms of technology, investment, scale, market, opportunities, entrepreneurship and so on. If a policy package is required to be evolved for assistance, it is important that these characteristics are taken into consideration in formulating the best possible policies in a market economy, with defined objectives for SMI sectors. In formulating policies for SMI, whether

promotional or protective, it is important to understand the nature of SMIs in the context of their life-cycle—that is entry—survival/continuity/growth or its opposite, i. e. entry-non-survival-exit or switch. The life-cycle status has been categorised in terms of characteristics of entry, survival, growth, exit and switch potentialities.

The life cycle of a manufacturing activity is a function of entrepreneur's evaluation of the opportunities and constraints. For simplicity's sake potential as viewed by the entrepreneurs is put here as high or low but in real life it is a spectrum running from highly negative to highly positive. Entry potentials are defined by forces promoting or prompting access to entrepreneurial activity in manufacture and ability to capitalize on those opportunities. Survival potentials are conditioned by factors that affect conditions and environment of manufacture as a reasonably profitable ventures. Growth potentials are indicated by forces that help to identify potentials for expansion in same or related manufacturing activity. Switch potential in case of not-so-successful operation is dependent on cost of and benefit from such an action. Exit potential is defined by constraints that limit or promote termination of a manufacturing venture given the capital invested, opportunities to recover investment, and alternatives after exit. These potentials depend on the specific conditions of the manufacturing ventures and generic or strategic alternatives available at the different stage of the life-cycle of the SMIs.

#### NATURE OF POLICY AND PROGRAMME ASSISTANCE TO SMIs.

Policy for and assistance to SMIs vary from country to country due to differences in objectives determined by socio-political factors and conditioning elements determined by economic and institutional factors. Thus a discussion of policy and programme assistance could be approached from different points of view. In our approach we have attempted to look at the policy and programmes from two-dimensional view. One concerned with areas of programme and assistance and the other with state of developmental need of the SMI. In this two dimensional paradigm we shall attempt to incorporate differing nuances wherever possible.

At the outset one should make it clear that objectives to develop SMIs will vary from country to country, depending on social, political, and economic factors such as population size and density, unemployment incidence, GDP and its sectoral distribution, income distribution, rural-urban disparity, export performance and import coefficients, savings and capital

formation, opportunities for education (particularly vocational and technological). SMI's will achieve a varying degree of success according to differences in technical capability, nature of market condition, available resource base including skill and finance, and the stage of development and nature of structural complementarity within the manufacturing sector. Further, orientation and organisation of the dominant socio-political group would define the policy instruments with respect to small industries. Finally, contents of policy and programme assistance will be defined by social and economic conditions as well as political orientation of the policy making group including the donor dialectics in a dependent economy.

#### *Human Resource Development*

"An enterprise is, after all, its human resources" so goes a Japanese enterprise management dictum. This is more true for small enterprises which need adaptability and flexibility to survive, grow and out-grow its limitation. It may be noted that in Japan only 24% expressed satisfaction with the quality of employees while 65% of them attach highest priority to human resource development. The need for training and development differs from individual to individual depending on his/her level and role in the enterprise. Training is not a goal in itself and cannot be designed in vacuum. It need be recognized that the goals of training are basically higher production and productivity, a larger share of the market on advantageous terms, higher status of the enterprise and the personnel. Human resource development for enterprises has become a necessity as formal education—both general and technical—fails to fulfil the orientation and skill required for successful running of an enterprise. This is largely and generally true of all the LDC countries.

The basic skill needed of a worker is to operate machines properly, safely and economically. In order to do so he has to familiarise himself with the methods of production including handling and sorting of materials and inspection packaging and storage of outputs. In order to be effective he has to accept discipline, work harmoniously, cooperate effectively and imbibe in the values of the forward-looking enterprise. Such orientation or skill does not come easily without training and retraining, which is absent in most of the enterprises, particularly those in SMI sector in all the LDC countries.

The basic job of a superior is to create good working environment and to maintain high morale. Only these can contribute to quality and quantity of production, reduction of costs and wastes and improvement of the production method. Such results are not achieved automatically as it

requires a commitment to and identification with the enterprise on the part of the managers at all levels. To achieve this one needs to be sensitive to critical human and material factors which build job security, pride in performance and appropriate attitudes and values. In general, managerial traits in all the LDC countries show absence of such qualities.

The basic ability of management is to initiate business, analyse information and solve organizational and operational problems. In doing this a team of co-workers has to be built up through a process of recruitment, orientation, training, placement, evaluation, promotion as well as attrition, separation or termination. Such personnel and management process is strengthened by clear norms of delegation, coordination, reporting and decision-making. SMLs in all the LDC countries suffer from absence of such managerial ability in varying degrees.

The organizational success is helped by knowledge of market including the strength and weakness of the competitors and also by an appropriate production standard. An entrepreneur or a manager feels these intuitively. The job of human resources development is to sharpen the intuition, provide the tools and technique for sifting relevant information, solve problems and minimize the risk of failure.

Thus a programme for human resource development for a specific enterprise or industry must start with an evaluation of training needs as well as categorisation of in-plant, in-industry, institutional and other facilities which can respond to the felt identified need. It should be recognized that the absence of an educated group of workers, supervisors and managers make development of modern SMLs difficult. Further a generalized approach of education to vocational, technical and managerial skill serve only the basic purpose and is short in meeting the dynamic and specialized needs of different organizations and different levels of employees. Though the capability of educational and professional institutions can be augmented to make bold, imaginative and purposeful approach towards human resource development in enterprises, however in order to be able to do so a continuous interactive process with the enterprises and the institutions is a necessity and a multi-disciplinary curricula directed towards optimization of resource use within given constraints in basic social and economic sense a must. Technological and environmental changes require such human resource development programmes to be need-based, relevant and flexible. As such education and training is a continuous process for effective and efficient utilization of technology and human

#### *Ahmad : Small and Medium Industries*

capital. It is necessary to create formal, non-formal and informal opportunities. Strengthening through appropriate coordination of such approaches at individual, enterprise, business and professional organization level in a resource-poor system is helpful. In order to create meaningful training programme, desire to learn appropriate tools, as well as organizational and social incentives need be there. In order to make SMIs sensitive to human resource development such training expenses could be made tax deductible and as far as possible the facilities should be available nearby. The trainers have to be equipped with proper preparedness for lessons and sequencing of lessons, and an incentive pattern need be created through enlargement of professional opportunities. As it is not expected that a large number of institutions and programmes would be developed, to suit each category of SMIs in different regions therefore, it is helpful to create a network for exchange of experience, training material and improvement of training methodology. To improve contents and methodology, the human resources development programmes have to be evaluated for its impact on production, productivity, cost reduction and profitability. Government budgetary support for such institutions, networking and evaluation is helpful for SMIs. Without adequate and continuous funding from public and private sources including beneficiaries and appropriate cost-benefit analysis, human resource development approaches could become generally unproductive. The trade associations, employees associations and chambers should be made interested to take ever increasing responsibility. As the national policy, programme and approach need be developed and made responsive to changing needs, and creative regional cooperation could be made effective. The LDC studies indicates general absence, with varying degrees of commitment and support, of such an approach for human resource development. The Fourth plan seem to have treated this in a cursory manner.

#### *Land, Utilities and Infrastructural Development*

Development of SMIs are helped by integrated land and infrastructural development. Industrial estates are a very sophisticated and complicated mechanism requiring superior managerial and organizational ability. The success of such an approach is conditioned by devotailing these estates with overall industrial and infrastructural development planning. However, the programme of industrial estates in its conception and implementation have varied widely amongst countries, amongst regions of the same country and amongst stages of development of the same country. As a

minimum, it has been conceived as earmarking of a location for industries wherein the responsibility of land development is taken up by an agency-government, private or cooperatives. Such a location is ideally characterised by proximity to input and output markets, appropriately developed transport linkages and availability of basic utilities like power, water and gas. In addition it is expected that offices of promotional and regulatory agencies including financial institutions would be located in the estate or in its neighbourhood. A developed industrial estate also provide for common service facilities which are capital intensive such as tools and machinery shop, repair shop, design shop, quality control laboratory, research and development facilities and so on. A well organized industrial estate would also have such programmes as bulk purchase of raw materials, skills and management training, and marketing of products. The degree of development of services largely depends on the degree of commonality and/or complementarity of product lines. In general the industrial estates in Bangladesh lack most of these facilities after seem to thirty years of development.

The industrial estates can be classified as general, specialised or integrated depending on the agglomeration and types of units located. Secondly, it can merely provide land and basic facilities, or organize common facilities and services for procurement, production and marketing as well. Thirdly, the estates can be developed as a public sector programme through budgetary allocation wherein land and facilities are made available at cost or less than cost to be paid overtime or even at rental. Alternately these can be developed as private commercial ventures for which government makes concessional priority financing available. Finally, the estate can be developed with basic facilities and diverted to trade association or cooperatives for development of common facilities under concessional financing arranged for such project under government guarantee from commercial institutions. In the LDC including Bangladesh the development of industrial estates has been a public sector responsibility and the specialization has been limited and is of very recent phenomenon.

The character of industrial estates would vary according to the economic system (e.g. Korea and Taiwan have depended partly on private initiative), stages of development and location (e. g. development of industrial estates near metropolis in rapidly industrializing economies could be undertaken by trade association) and economic and social objective (e. g., decentralization may need government intervention).

The success of industrial estates largely depends on the location, assembled facilities, promotional and protective measures (e.g. subsidized rental, subsidized rates for utilities). The contents of an industrial estate programme for SMI to be successful need to be adapted to such factors as economic opportunities, business traditions, potential availability of private sector investors and entrepreneurs, political pre-suppositions, administrative capabilities, as well as labour and management skills. Such adaptation is guided by such key factors as product-mix suitable for SMIs dictated by the tempo of development in agricultural, industrial, social, educational and service sectors and the external linkages through trade, availability of technology and technical skills as well as capital. In the 60s Republic of Korea developed industrial estates with assistance from Korea productivity centers by self-governing bodies with strong government financial support with a view to support internal and external economies, encourage export industries, invite capital investment from abroad and to strengthen competitive power. Bangladesh development plans have not displayed such dynamism.

#### *Raw Material and Key Input Supply*

It is assumed almost axiomatically that raw materials and key inputs for SMIs are available locally. This was certainly true for SMIs using traditional modes of production and meeting local needs and is still true for rural industries. However, for SMIs using modern technology this position can no longer be axiomatically held.

The overall supply-demand position of raw materials and key production inputs is influenced by the stage of economic development particularly industrialization. Such raw materials and inputs could be indigenous or imported and abundant or scarce. For indigenous and abundant raw materials and inputs, the basic approach is one of management optimization in terms of time of procurement and financing of procurement involving inventory control and wastage reduction and proper re-order time and fixing economic order quantity. Depending on the volume and critical nature of the input the SMIs have to define the procurement policy to minimize raw material and input cost including that for inventory. In case of imported but abundant raw material and key inputs similar observations are in order. The only additional observation is in respect of direct or indirect import and the management decision would depend on economic order quantity volume, expenses for handling imports, availability of finance, etc.

Assistance policy assumes added importance when raw material and key inputs are hard to get or limited in supply. If indigenous raw material and/or

inputs are scarce but uncontrolled (e. g. those produced by monopoly units), the SMIs often face the problem of irregular supply. In such cases collective effort by trade associations for regular bulk purchase almost at par with LIs or government intervention for imposing predetermined quota of supply to SMIs directly on the basis of license or indirectly through government supply bureau, seems to be in order. The allotments preferably should be on the basis of capacity licensing and measures to provide protection against unfair pricing practices by monopolists may be enforced. Similar approaches for ensured supply of imported scarce raw material and inputs through group action or government intervention would be desirable. However, intermediation by government often results in higher prices as the commission for meeting the overhead of intermediary's cost (and profit) becomes a factor. This may undermine the capacity of SMIs to compete with LIs in the same or similar commodity market. In such a situation, the question of price subsidy to meet at least the cost of intermediation would arise.

If the government provides protective assistance, it becomes necessary to specify the inputs and the substitutes needed for a defined period, alternatives sources and their quality and costs for various inputs from various sources at different quantity of procurement. Such an evaluation, in collaboration with the user, on a periodic basis is necessary for cost and quality control. Thus mere assurance of supply at the time of need which may help reduction in working capital need is not enough. Further, as protective measure to augment continuity and/or competitive ability, it may be helpful to extend exemption from excise and/or import taxes. Further standardisation of specification and sources of supply could help to develop long term arrangement at a preferential price. Overtime, it may be proper to transfer these functions to trade associations and cooperatives with assurance of administrative and financial supply arrangement whenever necessary. In the dynamic context with growth of markets the SMIs may themselves become LIs, consequently supportive assistance could cease and joint-venture units to supply raw materials for the SMIs could become a feasible proposition. Such an organised approach in this area seem to be totally absent in Bangladesh.

#### *Technology and Technical Capability Development*

This is a broad issue touching facets of the technology question like appropriate technology, transfer of technology, modernization of technology, standardization, linkages, research and development, science and technology infrastructure, design technology and so on.

Appropriate technology connotes a kind of technology that matches available skills and resources. As a static concept for developing countries it means low-wage low-capital low-quality production. This is vended in the name of employment creation but in the context of growth dynamics such a notion of appropriate technology is not acceptable. Appropriate technology need be considered as the most suitable package of production techniques covering the related production sectors and also projects within a given sector. Such a package, inter-alia should consider a given set of quantitative production targets for these related sectors, particularly in critical sectors. The identification of the package should be on the basis of development goals, available skill and resource, overtime, and dynamics of production relation in these sectors. The point to be noted in appropriateness of changes overtime and there is a necessity to extend the area of technological choice.

Thus a programme for technology development address the following issues:

1. Identification of technological needs and objectives.
2. Development of comprehensive and efficient technology information system so that alternative techniques and processes could be assessed.
3. Creation of institutional and manpower capability for screening evaluation and selection of technologies,
4. Development of institutional and manpower capability for the acquisition of needed and appropriate technology package on suitable terms and conditions.
5. Development of institutional and manpower capability to unpack the acquired technology, modify it and adopt it to national circumstances.
6. Development of institutional and specialized manpower capability to provide technological service at various levels of development, including capacity for engineering and design.
7. Development of an appropriate institutional mechanism for monitoring impact, absorption and adaptation of various processes and techniques.
8. Development of appropriate institutional and manpower capabilities for the upgradation of indigenous technology through fusion, redesign, modernization and value engineering.

9. Development of the science and technology infrastructure including education institutions for creating conditions for continuous availability of appropriately skilled manpower with ability to interact with available production technology in order to identify their problems and limitation as well as possibilities of substitution and changes.
10. Development of research and development activities in significant sectors.

These are broad issues and necessarily require government directions in terms of policy package involving investment in S & T education, fiscal incentives for industries in this regard, and regulatory instruments. Technology consciousness has to be created through appropriate information dissemination media. Trade association and chambers can be encouraged to share part of the responsibilities while universities and other educational institutions, as they get equipped with S & T and R & D capabilities, should be required and encouraged to interact with industries through workshop and consultancy services at cost. In Bangladesh such an approach is still absent.

Linked with technology is the question of modernization which should not be misconstrued as substitution of obsolete machinery. Modernization begins with the changing attitudes of the entrepreneur who considers growth as fundamental to efficiency which involves not merely replacement of machinery but also improvement in lay-out, better supervision better work methods, improved work planning, change in production processes, better inventory control, improved marketing practices and so on, because without better utilization of men and material, mere replacement of machinery does not produce productivity improvement. In Bangladesh such consciousness is found to be generally absent and no attempt is visible to develop it.

In this context it is helpful to recall the channels of technology transfer. Foreign investment brings technological know-how and resources. Foreign investment law has to be so designed as to ensure the transfer of know-how adequately and properly. Technical collaboration without financial participation plays a similar role. There needs to be a legal basis for such collaboration which ensures payment of fee and royalty for a needed technology while the transfer can be ensured as a part of the agreement. Equipment supply is another source of technology as technology is in a large measure embodied in the equipment itself. Suppliers should be required by law to provide training in operation, repair and maintenance as

well as necessary drawings and designs so that unpacking of technology becomes feasible. To the extent feasible on the basis of technical capability, the turn key jobs should involve local experts and institutions in planning, installation and commissioning of a project. Government to government agreement often helps transfer of technical know-how through training, apprenticeship and supply. Consultants of the collaborating countries, working together, can also effectuate transfer of technology. Contralized purchase of technology by a competent organization in the host country can also help dissemination of improved technology along with its adaptation in association with S & T and R & D institutional facilities under the provision of the legal framework governing foreign collaboration; however, such a provision assumes presence of necessary technical capabilities in SMIs and the S & T and R & D institutions and willingness to subsidize such an agreement for a defined period. These pre-requisites do not seem to be present in adequate measure in Bangladesh. The Fourth plan makes no specific provision for this.

In order to ensure that appropriate technology has been selected and properly negotiated, a regulatory body may be entrusted with the task of evaluating the selection in terms of expected value-added weighted by probability of attaining the norm defined by capability to absorb the technology by the recipient against current cost of acquisition and discounted future cost of services. This is a function that the government promoted agency has to fulfil.

We have emphasized the need for an appropriate and continuously upgraded science and technology infrastructure along with research and a development outfit oriented to the needs of industry including SMI. This requires an institutional symbiosis amongst education, research and industry; each interacting and responding to the needs of others. Mere presence of S & T educational facilities or R & D laboratories is not enough; it is initiation and continuity of a purposive relation in the context of technological development that matters. It is thus necessary to bring these separate entities into close-knit relationship through an institutional framework (such as technology development authority) to provide finances and other incentives for technical and research collaboration amongst these entities. Such strengthening of technological base would help broadening the industrial base under a programme of modernization and technology up-gradation for industrial enterprises with effective linkages backward and forward.

Linkages between small and large industries not only create conditions for effective transfer of technology but also develop technological independence and modernization of SMLs which become subcontractors or ancillaries to LIs. The bargaining power would lie in standardization, quality control and timely delivery individually and collectively.

The cost of investment and operation of having everything under one roof is high and thus ancillarization of SMLs is helpful to reduce cost for LIs. Exploitation of SML can be avoided through organization of an institutional arrangement of subcontract exchange under the law of the country. Such agreement should not only require supply of design and drawing but also sharing of working-capital finance while institutional finance for fixed assets could also be made available. Such subcontracting for parts and components is commonplace in Japan, Korea, and Taiwan, but it seems to be absent or showing slow growth in other Asian developing countries including Bangladesh due to inadequate support from parent units, the lack of assistance from promotional agencies, the lack of entrepreneurial initiatives on the part of the SMLs and lack of governmental policy. It requires an effective promotional agency which brings the LIs and SMLs together wherein LIs agree to provide the designs and drawings, and technical assistance and a financial institution may provide working capital under guarantee from the central bank and as few batches of production pass the inspection and test by an independent R&D institution the parties may be encouraged to come to a long term purchase agreement on the basis of an agreed cost plus pricing. Such a process would require intervention in the import market for parts and component through tariff and quota restriction as well. Trade liberalisation policy has to be sensitive to such a possibility.

In order to build confidence in this process, setting of standards (also standardization of products), design technology and structural strengthening of SMLs become important. The issues involved in these go beyond linkage operation into other markets as well. It is common knowledge that SMLs are beset with a number of problems such as lack of proper specification and quality control, lack of testing facilities and equipment for special operation amongst others. Standardisation and quality control are important by themselves, but they assume greater importance when raw materials are short in supply and raw material prices are rising. Appropriate standards and quality control of inputs and outputs would help ensure optimum utilization of scarce raw materials, minimization of wastage or rejects, improvement of quality, enhancement of productivity and consequently reduction of cost. Such measures are largely absent in

Bangladesh, nor are they seriously contemplated as part of industrial policy.

In order to effectively implement such contracting arrangement standards need be set, and an institution empowered by law and with qualified manpower need be set up with participation of industries wherever possible. Such an institution would specify quality standards, prescribe test methods, sampling procedures and code of practice. If these are accepted by the contracting parties then standardization would effectively promote subcontracting and disputes arising out of such an arrangement can be settled easily. Such a process of standardisation requires training in production control, quality control, inspection and certification. If the product is of wider use then standardization would be helpful in reducing variety and promoting market for efficient SMIs.

Related to subcontracting and standards in the question of design. Industrial design broadly defined is a creative activity which aims at determining the formal qualities of objects produced, basically the structural and functional relationships which convert a system into a coherent unit from the points of view of the producer and the user. In developing countries SMIs depend on designs available to them, and in the case of subcontracts the LIs are rarely in a mood to finance design development. Of the SMIs which are product-oriented and operate under a marketing umbrella of LIs or as ancillary to supply parts and components, they have low degree of design problems as the design are given by principals. Even then, technical capability and finance permitting, SMIs can get better price and enhance marketability of products through the improvization of product design. SMIs, however, for design technology, have limited ability to organize own office or engage consultants; most developing countries do not have design centers and cells. Hence SMIs depend mostly on available designs and skill of manufacturers. In order to enhance design capability it is necessary to organize prototype development and training centers under an industrial design organization where requirements of specific industries could be attended to and evaluated for cost and benefits. The SMI policy in the fourth plan is silent on this.

Technology transfer, subcontracting and standardization process implemented in harmony have the potential to help structural strengthening through organization of common facilities for production, sales, purchase design, storage or transportation in the SMIs sector. Such

collective actions are necessary for reducing cost and is often encouraged through guidance and preferential taxation measures as is evident from the experience of Korea.

It should be stressed that in the development of technological capability and associated activities guidance from above is needed as much as incentives which can be created through institutional and promotional measures.

#### *Marketing and Market Development*

Mainly due to technical progress, mass production of goods and service has been accelerated and this has necessitated systematic development of markets. In comparison with LIs the small-scale industries seldom think of marketing as an area of concern. They are more concerned with production and financial problem. Because of the lack of proper degree of conscious consumer-orientation, SMIs generally fail to recognize the fact that marketing is just as much a part of the production process as manufacturing is. SMIs consider finance to be the problem area which is not always within their control but they fail to recognize that with efficient marketing many of the financial problems could be solved or eased.

Marketing is a broad concept involving - (a) merchandising, (b) market channels, (c) market research, (d) sales promotion, (e) pricing and (f) location of business.

In traditional SMIs distribution activities or marketing have generally been done through a middleman including wholesalers and retailers. This is the reason why marketing was not considered to be SMIs part of activity. But modern SMIs are increasingly getting involved in marketing of their products to a greater degree than the traditional ones.

In a growing market, physically and/ or institutionally, marketing activities are important to ensure quick flow of products including new ones introduced by technical progress, to increase competition for improvement and efficiency, to respond to cyclical and secular changes in demand and to help raise the level of livelihood with expansion and production base. Even then the developing countries of Asia and the Pacific including Bangladesh have shown less interest in marketing and distribution of product than in financing investment and production. It has implicitly been assumed that there is a ready market and the problem lies in getting the appropriate price for the producer - not too high at the expense of the consumer or too low at the risk of the producer. This is indeed made clear by all policies and programmes with respect to SMIs in the developing countries of the Asia

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and the Pacific which pay so little attention to marketing and market development in their policy formulation for the SMI sector. Fourth plan is at fault on the same ground.

It is helpful to recall that the merchants perform very important functions for SMIs. These include-

- a. Financial function involving credit for producers, fellow tradesman and consumers,
- b. Physical function of distribution involving sorting, transporting, storing, repairing and displaying, and
- c. Promotional function involving advertising, sales promotion and providing producers with information about consumer choice, demand changes, price range and competition.

The responsibility for trade credit is being increasingly taken over by commercial banks either through direct provision of credit to producers and traders or indirectly through discounting of bills. The credit has been available on long term basis for purchase of equipment and on short term basis for raw materials from the merchants. The rates of interest charged have varied widely and have generally been high compared to institutional credit. Even though subsidy may not be advised except in exceptional circumstances, adequate and timely availability of credit to SMI producers from institutional sources would most certainly bring down the cost of finance and improve their bargaining power. In case the institutions would like to minimize risk, making such loans available through cooperatives and trade association involving group security and group pressure for repayment, refinancing facilities with DFIs or central bank, and credit insurance schemes would indeed be helpful.

Physical distribution function can be greatly improved through such actions as standardisation, quality control, improved product design, packing and branding. Technical assistance through an effective SMI development organization in public or private sector in these respects and creating consciousness in the producers regarding these would be helpful. Such actions would reduce the function involving sorting of products. It is important to note that such actions to facilitate marketing on the production side need be based on appropriate marketing information. Group actions are helpful not only to collect marketing information but also to assist in the areas of transportation, storing display, advertising and sales promotion, thus on the one hand it is necessary to promote cooperatives and trade associations through a coordinating body and provide finance from a

financial institution. The basic principle should be to back up and support but always keep the goal of cost-sharing and self-reliance over a period in the planning of such assistance. Unless producers themselves acquire individually and collectively capabilities to analyze the market conditions, including trends of impending and long term change their preparedness to respond to such challenges through adjustment in time would remain largely absent. Under the circumstances mere availability of finance would not be helpful. Improvement and switching in time is a better business strategy than failure and exit. SMIs in Bangladesh do not exhibit such strength adequately, nor there has been any attempt to create such strength in them.

Another important aspect of marketing is pricing which need be based on an accurate analysis of cost and price of competitors. Generally SMIs have been price-takers and their costing often excludes many non-financial costs. The situation can be changed by making producers more cost conscious which help them to identify opportunities to economize and by making them price-setters within limits of competition through cooperative action.

Market development and marketing successes ultimately depend on creativity and innovation even when imitation is the starting point, strict self-discipline in setting standards and keeping commitments, quick assimilation of marketing information for going along or preferably going ahead of market trends and finally on flexibility and independence based on self-reliance. Such an attitudinal and behavioural approach is at the basis of ultimate success in marketing. The market promotion and protection measures thus need not be merely technical and functional but also institutional for creating appropriate value orientation. The industrial policy for SMI in Bangladesh donot exhibit this sensitivity.

#### *Export Marketing*

Export marketing is a specialised function involving know-how in international trading and financing practices, including the identification of markets, the presentation of products, pricing policies, procedures and formalities at home and abroad, documentation, pre-and post shipment finance etc. For developing countries it is important to combine inward and outward looking strategies for creating competitive strength to broaden industrial base, self-reliance and acceleration of growth. The problems of export marketing for SMI are same or similar as they are for LIs but distinct and intense in nature.

The experiences of Republic of Korea, Japan, Taiwan and Singapore suggest that given appropriate programme and policy assistance, SMLs can make substantial contribution not only towards output and employment but also to exports. In developing countries, with appropriate extent and intensity of assistance, SMLs can contribute to expansion of industrial export under an integrated programme of action because of their comparatively less intensity in skill and capital resources. It should at the same time be noted that piecemeal conversion or promotion of SMLs into export industries requires both a programme for development of such small industries as well as a concomitant programme for the development of export of these products. The coordination of these two aspects ensures a sound production base for manufacturing quality products along with the minimization of costs and risks of market promotion/exploration.

The success of such a programme depends on strict selectivity and gradual expansion with experience. The selectivity involves product lines as well as enterprises. These product lines are preferably those which satisfy accepted criteria of process, market and resource orientation. For example, Republic of Korea at initial stage while selecting the product line opted for those which satisfied the criteria of low comparative cost, high employment coefficient, good overseas marketability and high rate of net foreign exchange earning. In selecting the enterprises the criteria which are helpful are dynamic and responsible management (who can respond to institutional assistance and guidance), favourable location, adequate technical skill, high rate of capacity utilization and ability to project good image.

The essential elements of the development of export-oriented SMLs are (a) adequacy of facilities and services for development of export production, (b) opportunities for sustained market promotion, and (c) motivation and inducement for remaining in export business. Developing export product requires identification, location and dissemination of information on export opportunities including design specifications for standardization through the use of quality raw materials, testing of output and quality control, appropriate differentiation for meeting consumer preference and creating brand preference, etc. The product is required to compete in quality, price and individuality. Market promotion includes presentation, display, publicity and facilities for inspection, credit payment, replacement, after-sale services and competitive pricing. Motivation and inducement is basically determined by extension of facilities which make export more attractive financially and psychologically. This also involves the

specification of process and documentation. Various tax incentives, availability of credit for investment in fixed assets and working capital and finance for product and market promotion as well as credit guarantee, insurance and refinancing facilities help the operation of such SMIs. Institutional facilities in the public sector for market research and survey as well as market promotion through publicity has been widely practiced. Promotion of cooperatives, specialized industrial estates, trade association for joint programmes, specialization and subcontracting amongst SMIs have also helped growth of export units in SMI sector. The experiences of SMIs in Bangladesh are yet too limited, despite the growth of non-traditional sector in export merchandise.

#### *Financial Assistance for SMI Development*

One of the main problems which confronts SMIs is the lack of adequate finance for operation and growth. They primarily depend on own and/or family savings and loans from informal credit market. At the onset it is helpful to distinguish between (a) equity or venture capital for establishment of an enterprise, (b) loan capital to supplement equity and/or for expansion, renovation or modernization and (c) working capital for operation of the enterprises. The sources of funds are-

- a. Own or family savings or sale of assets,
- b. Commercial financial institutions,
- c. Specialized financial institutions including cooperatives,
- d. Special allocation from government, central bank or external sources, and
- e. Informal sources viz. friends and relatives, trade credit and/or money lenders.

The instruments for motivating formal loan institutions for extending credit are (a) credit guarantee schemes, (b) refinancing facility and (c) credit insurance schemes.

Certain general observations can be made. First, the less developed are the money markets, the higher is the dependence on own and informal sector; second, the less formally (legally) organized are the SMIs the less access they have to formal finance; third, the more special finance is channelled through formal financial institutions and programmes, the higher is the organizational capability of SMIs. Developing countries in the regional including Bangladesh widely vary in these respects so are the financial assistance programmes and processes.

The problems of obtaining loan from the formal financial institutions are

identified as the lack of appropriate or adequate collateral and extension of formalities, processes and required complex documentation.

Developing countries have more often than not extended subsidised credit to SMIs on the ground that at the initial stages its ability to pay high interest charges are limited and subsidized interest helps to stabilize the financial aspect of their operation. Against this arguments, it has been pointed out that low rates of interest create conditions for over-capitalization, high capital -intensity and/or the diversion of credit, all of which may contribute to the failure of SMIs. There seems to be a consensus towards charging market rate with the proviso that timely or early repayment should be rewarded with rebate. And this would lead to the creation of adequate liquidity, reducing dependence on external finance; or to the augmentation of net worth (i.e. credit worthiness) within a specified period which would also qualify the enterprise for rebate on efficiency grounds. There seem to be less concern about the long repayment period and certain amount of grace period. However, for reason of good financial management these should be given on the basis of optimality in operation, differentiated by the nature of product and market. Further, there is also an agreement to decentralize authority for sanctioning loans and credit on the basis of clearly specified rules and guidelines which may be periodically adjusted by top management of financial institutions depending on economic and enterprise outlook.

The agreement to involve commercial banks in financing the development of SMIs as well as specialized credit institutions have become quite normal along with guarantee and insurance schemes and refinance facilities. But very few countries have been able to develop industrial finance cooperatives from their own retained earnings. Such a venture merit consideration as an alternative source of finance in emergency and at least as complementary fund in a consortium arrangement. Recently, hire purchase arrangements have reduced the need for loan (not finance). Better management and subcontracting similarly does reduce the need for working capital loan as does advance sale. SMI promoting authorities could also encourage the successful ones to enlarge share capital as a measure to reduce need for guaranteed loans. It need be mentioned that appropriate accounting and financial management systems are necessary for monitoring the loan use and repayment both by the management and entrepreneur as well as the financing institutions and guarantors/ insurers. Further, there is a need to integrate financial assistance with technical assistance for new venture on the basis of identified need. Additionally, it is

important to train bank personnel as well as extension officers not only in project appraisal method but also in management audit for monitoring utilization and repayment of loan. Finally, networking of the financing institutions to review the SMI loan and credit situation vis-a-vis national priorities as well as the identification of overall creditworthiness of enterprises arising out of over-financing from different sources for different projects of same person(s) and areas of improvement as well as simplification of procedures for loan are helpful. The financial assistance practices in Bangladesh display limited awareness for an integrated assistance approach. The concern is about credit but not about productive utilisation and self-reliance.

#### *Fiscal Assistance for SMI Development*

While discussing other programmes and assistance to SMIs, we have touched on the fiscal assistance now and then. The purpose of this section is to pull them together in a systematic manner and fill in the gaps as necessary.

Fiscal measures relate to revenue and expenditure of the government and revenues concern both tax and non-tax sources. Tax or fees could be uniform or differentiated and differentiation could result in progressive or regressive structure. But the extreme case is that of exemption.

Business (corporate) taxes on gross income/profit if exempt or has a steep progressive structure for LIs could favour SMIs, but not necessarily depending on deductions allowable for retained earnings and reinvestments etc. Tax holiday has been a popular device for promoting investment, though some dispute its impact. However, accepting that tax holiday has an impact and if it is made more favourable for SMIs, then it can be argued that SMIs could enjoy a promotional environment due to such a measure. However, longer tax holidays for regional dispersal of industries have been found to have only limited impact. It merely takes the industries to the periphery of cities and thus acts to extend the urbanized areas.

If personal income from SMIs (including dividends) are made tax-exempt the entrepreneur in high tax bracket may find it attractive to invest in SMIs for its graduation into LIs provided such incremental changes are optimal. It may however, encourage horizontal expansion under same ownership leading to concentration of economic power.

One of the successful measures for the development of SMIs is to make developed lands available at subsidized rent along with differentiated rates

for utilities which could be at full cost, market cost or below cost promoting recovery of the loss, if any, through cross subsidisation, budgetary allocation, deficit financing even borrowing from financial institutions by the utilities sector be it publicly or privately owned. Another related subsidy area is development of common facilities in the industrial estates, the use of which could be extended at a nominal cost covering current expenses only.

Excise taxes on purchase of local raw materials, and inputs could be refunded partly or fully (or at differentiated rate compared to LI) for SMIs in early years of its operation and such taxes on its output could similarly be exempted partly or fully (or at differentiated rate) to gain penetration in domestic or export markets. Such a measure could also be undertaken in respect of imported raw materials or inputs for the same end in view for SMIs. Machinery, parts and components, could be similarly treated in favour of SMIs. If the differentiations are significant enough, it appears to have a discernible impact, compared to tax holiday measures. Such a measure would be justified in a labour-abundant low-wage economy for labour intensive enterprises if we accept that the smaller the enterprises the lower is the K/L ratio and the lower is the wage. However the possibility of misuse of exemption or differentiated rate can not be ruled out. Government preferential purchase policy for products of SMI on the same grounds could be justified. But such a measure is often difficult to implement.

If training expenses are made tax exempt and public sector training facilities are made available at marginal cost under conditions of conscious management, rapid change, and legal requirements, SMIs may be prompted to make use of such facilities and programmes and benefit only if such programmes are properly designed and executed. Similarly for technological upgradation and creation of technical capability at SMI tax deduction of R&D/S&T expenses in-plant or in public or private sector institutions where services could be made available at marginal cost could be a helpful measure. This would also be made use of only if benefits are perceptible to conscious management, and legal requirements exist along with inducement for tax exemption.

Similarly product and market development expenses at home and abroad could be made tax deductible at differentiated rates for SMIs and such expenses could be allowed to be undertaken as a joint and /or cooperative programmes. Import restriction across the board has generally been preferred by LIs and at times promoted industries with high domestic

resource cost. Tariff system often restricted raw material and intermediates to the detriment of the growth of final goods industries. Hence rationalization of tariff for the development of SMIs in comparative advantage sector with appropriate technology is a complicated and continuous exercise for the policy makers and in the interest of efficiency it is necessary to be undertaken. The fiscal measures in Bangladesh have not been analysed from such an overall general equilibrium approach. The fourth plan does not even propose to attempt it.

Interest rate subsidy for SMI has been advocated at times for the reduction of cost of finance and capacity utilization, as has been allocation of foreign exchange at preferential rates for SMIs, particularly the export-oriented ones. Such subsidies across the board are difficult to justify on economic grounds as subsidies which lead to unwarranted distortions could lead to sub-optimal economic outcomes.

#### AN OVERVIEW OF THE POLICY AND PROGRAMMES IN SELECTED COUNTRIES

The experience of countries in the Asia and the Pacific region with respect to industrial development has been widely divergent and so have been their promotional and protective policies.

##### *Republic of Korea*

Republic of Korea is recognized for its achievement in economic, industrial and export growth. Its development initiative came under an authoritarian regime which consciously upheld the need for accelerated development. In the 1960s government pursued a policy of import substitution through the establishment of labour intensive light industrial goods producing units but keeping the protective policies on a changing basis so as to create efficiency for international competitiveness. During this period in the import substitution sector small business received due attention and support from government and banking institutions, while the stage was being set for the basic industry sector through public sector participation and intervention. This allowed the government to shift industrial strategy to favour growth of heavy industries in the 1970s and the withdrawal of protective measures exposed the SMIs to many disadvantages such as the shortage of capital, out dated facilities, lack of competence in overseas marketing, inability to keep up with changing business environment and upgradation of technologies. As a result SMIs failed to develop strong complementarity with LIs/VLIs that came up as suppliers of standard parts, components and intermediate goods. This signalled the fact that social, political and economic stability of Republic of

Korea depends largely on the equitable distribution of income for the expansion and growth of sound middle class. Consequently the government in 1980s adopted policies and programmes to accelerate development of SMIs. Such measures included comprehensive financial, technological and marketing assistance programme along with measures for managerial modernization through human resource development, creating linkages of SMIs with LIs, cooperation amongst SMIs for scale economies etc. In addition common facility development through industrial cooperatives, industrial estate development, and special assistance for new ventures with advance technology, and reservation of sectors for SMI became part of SMI promotional package. Steps were taken to ensure adequate access to capital resources through allocation and guarantee measures and developing consistent small business laws and small industry promotion corporation to provide legal base and effective administrative support. There has been continuous broadening of the educational base and deepening of S&T and R&D capabilities in private and public sectors. The lessons of the Korean experience are as follows:

- a. Provide assistance to SMI but do not undervalue competitiveness and complementarity;
- b. Managerial modernization and technological capability development through educational expansion for broadening S&T and R&D capacity must develop simultaneously;
- c. Assistance programme has to be comprehensive not fragmented;
- d. Legal and administrative mechanism need be specific and adjust quickly and effectively with changing environment;
- e. Industrialization strategy need change over time in the context of changing socio-political conditions of the country; and
- f. Initiative from below has to be responsive to incentive from above.

#### *India*

India, since its independence in 1947 have gone through seven development plans. India is a large country with large and diverse population. The milieu of independence movement created great awareness among the legislators and administrators about the importance of village and traditional small industries sector such as handloom, khadi, handicrafts, pottery, sericulture, metal crafts, etc. The advantages of such industries were found in its highly decentralized household based production system, use of simple tools and equipments and production of goods to meet local as well as urban (and now export) need with ease in a

less sophisticated and segmented market system. Side by side, particularly since independence, modern small-scale industries developed, putting emphasis on technological and organizational modernity, product sophistication and urban orientation. In this sense the small industries sector in India is characterised by technological pluralism.

In India, industrial development has always been viewed as a single programme in which traditional village industries, modern small industries, medium and large industries can play complementary roles to make them contribute their best to the growth of national economy without unnecessary conflict or generally unfair competition. The major objectives of such an industrial policy, first stated in 1948, later amended in 1956 and 1983, have been employment generation, poverty alleviation, redistribution of national wealth, correction of regional imbalances, promotion of exports, imports substitution, optimum utilization of installed capacity, vertical integration of different sub-sectors etc. It should be noted that even though public sector enterprises were designated to reach the commanding heights with large investment in heavy, basic and hi-tech industries the private sector were allowed adequate role for rapid development in small, medium and large sectors while reservations were made for village and traditional small industries for employment generation and expansion of production base in rural and semi-urban areas. Thus the political philosophy was egalitarian and socialistic on the one hand, it was directed towards entrepreneurial growth, modernization, accumulation of wealth and capacity utilization on the other. This basic outlook despite changes in administration has remained static without making room for qualitative evolution for the SMI sector which has resulted in lateral and vertical expansion of institutional facilities without creating a policy induced pressure for qualitative change.

#### *Indonesia*

Indonesia is a large country with rich natural resources. In recent years, it gained from oil price. Population is largely concentrated in Java and Sumatra, even then there are many widely dispersed and relatively less developed areas. The population in aggregate is one of the highest and labour force is about 60 million and is expected to increase annually by 1.6 million. However, like other developing countries labour force engaged in manufacturing is small (10 per cent). The economy is growing at an estimated rate of 3.2% while population growth rate is 2.1%. The contribution of manufacturing is around 9% and share of manufactures in exports in 1987 excluding petroleum and gas was 38.9%. Among the

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manufactures, wood products (accounted for 35% of value), rubber product (14%) and garments (9%), textiles (4%) are most important. The export of small industries were concentrated in food products, textiles, chemicals and handicrafts, the value of which are showing increasing trend. Export from medium industries have contributed to expansion of employment and income opportunities in rural and urban areas. It is estimated that about 21.3% of manufacturing labour force was engaged in SMIs, and this is only exceeded by the cottage industries. In terms of value added, SMIs generate about 13% of non-oil manufacturing value added and 80% of this comes from units in Java. These confirm that even excluding cottage industries large and increasing manufacturing activity is taking place in SMIs even though capital intensity and labour productivity increased with size and they were not consistently efficient.

Since the First-five year development plan period (1969-70 to 1973-74) under the present regime, the government has provided in the plans a high priority to development of SMIs and the continuity of this policy in the successive plan periods were ensured through financial allocation and administrative support to meet the increased demand for goods and services of low income groups resulting from higher employment. Such a move was promoted by the fact that SMIs use local resources and thus reduce pressure on balance of payments, such units are flexible to meet variable export market and are amenable to linkages with LIs. The third development plan specifically noted that the objectives of SMI development was to create employment to ensure supply of basic need goods in sufficient quantity at reasonable prices in all regions, to process local raw material for expanding export demand, to promote balanced regional development and to make efficient use of natural resources without creating ecological or environmental imbalance. This shows the basic continuity of the residual role of SMI sector and an absence of dynamism for evolution of a meaningful role for SMIs as was the case with the Republic of Korea.

### *Phillipines*

All the plans and policy pronouncements in the Phillipines have recognized the importance of SMIs for employment generation and regional dispersal. However, studies tend to indicate that such recognition has not been backed by appropriate policies to accord comparative advantage to SMIs for modernization, growth, linkages with LI and export competence. However, this did not imply absence of programmes and indstitutions for aiding growth of SMIs.

It may be mentioned that in the Philippines the government administrative (thus also legal) infrastructure for the development of SMIs, include many important instrumentalities. The Philippines is possibly the most developed country in the region in terms of institutions and programmes to help SMIs. At least it can be said that the pronouncements in the plan seem to have been backed by the institutional and administrative back up though multiplicity creates problems of coordination and diseconomies. Even in this case we observe a lateral and at times vertical expansion of institutions and facilities for SMI without an integrative and qualitatively evolutionary approach.

Between 1972 and 1983, the total number of SMI establishment has increased at a simple annual average rate of 2.2% approximately. Total employment in manufacturing sector increased from 428, 107 to 600,678 of which SMI share was 94,590 (22%) in 1972 and 126,226 (18%) in 1983. In terms of employment simple average annual growth rate was 3.3% approximately. When considering value added (VA) for the manufacturing sector, there was an increase from 8629,169 thousand pesos in 1972 to 35,466,762 thousand pesos in 1983 at current prices in which the share of SMI dwindled from 14.5% to 10.6%. Since the values are given in current prices, we refrain from calculating the growth in value added some of which are due to increase in prices and SMI products normally show slower growth in prices compared to LI/VLI products. From the macropoint of view, SMIs displayed a slower growth. However, this is not true across the subsectors. In terms of number of establishment, food manufacturing (312), printing and publication (342), rubber products (355), China and earthenware (361), other non-metallic mineral products (369) and machinery and equipment (382) showed a relatively higher increase in favour of SMIs. In terms of employment, such sub-sectors as food manufacturing (312), paper and paper products (341), printing and publication (342), other non-metallic mineral products (369) and machinery and equipment (382) did display similar trend. In terms of value added such sub-sectors as food manufacturing (311), glass and glass products (362), Other non-metallic mineral products (369), fabricated metal products (381), machinery and equipment (382), professional scientific instruments (385), and furniture and fixture (386) showed high growth trends. Assuming that no significant special protective or promotional measures in terms of ERP/DRC were there, these sub-sectors indicate comparative advantage areas for SMIs given the current state of technology and effective policy environment. However, the potential comparative advantage of SMI in the dynamic

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context would be different depending on the socio-economic factors. Here again no significant evolution of the role of SMIs are noted.

#### *Bangladesh*

Bangladesh is a country with large population and small industrial sector wherein the importance of traditional and small industries is almost as great as the large and medium industries. In the development plans of Bangladesh, the importance of labour-intensive SMIs have been duly noted for their employment generation potential, better regional dispersal, ability to cater to variety of markets and potential for linkages with LIs besides being the nursery for entrepreneurial development and a vehicle for self-employment in an economy where unemployment is increasing at an alarming rate. In spite of such recognized advantages growth of SMIs have been slow, capacity utilization uneven and deficiencies in managerial and technological aspects persisted. According to a recent study modern SMIs (employing 20-99 workers) accounted for 77% of establishment, employed 12% of employees and produced 8% of output value added in 1982-83. The study also noted that while SMI sector so defined grew in terms of employment and number of establishment their share in value added was less in relative terms vis-a-vis LIs. These SMIs displayed variable rates of growth in terms of employment, highest being in textiles (320,321) followed by chemicals (350-356). The growth was lowest in food processing (311, 312) and leather (323) followed by metal products (380, 381) and machinery (382, 383). The study also found greater entry into this class as well as exit, while the number of new entrants were higher than those of exit. Part of this was caused by shift in the size 3 classes. However, in relative terms LIs seemed to have gained. The modern SMIs are more capital intensive than traditional ones and empirical evidence suggests that capital-labour ratio increases with size. The study also indicates that labour productivity increases with size, while the converse was found for capital productivity (based on depreciated book value).

What is to be noted is the absence of any evolution in policy as was the case for Republic of Korea. There has been basically linear expansion in facilities provided without much of a qualitative change. This may be due to no basic change in structure and capability of SMIs to negotiate effectively with the government.

#### **POLICIES FOR SMI DEVELOPMENT : A COMPARATIVE PERSPECTIVE**

The countries studies of Bangladesh, India, Indonesia and the Philippines can be summarised under the following heads with respects to needs for intervention:

1. Human Resource Development,
2. Technological Capability Development,
3. Infrastructural and Advisory Services Development,
4. Financial Assistance,
5. Market Development Assistance,
6. Administrative Simplification, and
7. Rationalization of Macro-policies.

#### *Human Resource Development*

Of the four countries, Bangladesh and Indonesia seem to be in dire need to expand, broaden and deepen the technical, entrepreneurial and managerial skill of human resources. In the Philippines certain interesting experiments in entrepreneurial and management development has gone on. In India, efforts have been made for entrepreneurial as well as skill development in vocational schools, in developed industrial estates and on-the-job as well as through special training programmes. However, all the countries would benefit from consolidations of the successful efforts, exchange and net working of institutions and policy reformulation in respect of technical education and apprenticeship with incentive built in for training such as tax rebate for training cost. However, public sector initiative in providing training as well as trainers seem to be a pressing necessity for at least Bangladesh and Indonesia. A policy for divesting this responsibility to industrial associations or associations of enterprises in an industrial estates in conjunction with technical and vocational institutions need be clearly defined though integration of vocational education with SMI sector. In the development of human resources, country differences due to difference in comparative advantage would be there and the countries need be assisted to define properly the priority industries and areas for training. Technical assistance in formulating an appropriate approach for accelerated development of technical manpower in general and particularly for SMIs seem to be a priority area to be taken cognizance of.

#### *Technological Capability Development*

India seem to have better technological capability than others and the Philippines seem to have potentially the capacity to develop science and technology infrastructure for effective research and development work for many sectors including industries; but in both cases SMI seem to enjoy lower priority. Bangladesh and Indonesia lacks such a capability. For a breakthrough in technologic capability it is not only important to upgrade science and technology education at all levels but it is equally necessary to

develop close linkages between industry, technical education and research. Success in such an effort is epitomised by Asian NICs. In order to do so, governments need to develop a science and technology policy which puts premium on development of this sector and incentives for partial or complete indigenization through adoption of imported technology. In this respect the role of professional associations and entrepreneurs are very critical. Inter-twining through sub-contracting, importation of technology experimentation, simplification of laws for licensing and patents are important factors. Making information available of successes, failures and opportunities also play a role in promoting technological upgradation. Policy incentives for R & D by SMEs is considered a necessity. Since the countries are at different stages of development, the need and speed of development would differ. The concerned national authorities and the donors could play a useful role in helping the governments define policies and approaches for technological upgradation in SME sector and help the countries like Bangladesh to benefit from each other through networking.

#### *Infrastructural and Advisory Services Development*

In theory this has been an area of action for most of the developing countries. But the concept of infrastructure often lacked comprehensiveness. India, through a large network of general, specialised, ancillary and export industrial estates, has come close to a concept of self-sufficient development of infrastructure despite regional differences; even though India's efforts fall short of Korea's successful development in this respect. In the Philippines, particularly, outside NCR, deficiencies in the development of infrastructural facilities inhibit growth of SMEs. In Indonesia the experience in this respect is similar. In Bangladesh most of the industrial estates lack much of the essential facilities. It is therefore necessary to conceptualize the critical mass of physical facilities that are needed and the advisory services that should be available for development of industries and particular SMEs. Such development is important not only for efficient utilisation of physical facilities so created but also for efficient operation of industries so located through creation of common facilities and inter-linkages. The donors could provide assistance to countries, particularly the countries like Bangladesh in adopting an appropriate policy for development of physical facilities and advisory services.

#### *Financial Assistance*

Most governments have jumped to provide special credit for SMEs without adequate preparation resulting in high transaction cost and low repayment. Some success stories are known in the Philippines, Indonesia

and India, even in Bangladesh. The importance of proper pre-investment study, timely availability of supervised credit at market rate without involving other transaction cost and ensuring availability of critical inputs and services cannot be overlooked. Low repayment has largely been the result of inappropriate feasibility study, high transaction cost for loan made available after long delay, political intervention and non-availability of critical inputs at the estimated cost due to changes in policy or promotion of a Contemplated class through political patronage. Making finance available is just not enough. The guarantee scheme and/or credit insurance may shift the burden of non-payment. Such an attitude reflects risk-aversion. The importance of financial assistance lies in being involved in the success of the scheme. Such involvement augments cost which needs subsidisation to some extent. Thus financial assistance need not be judged in isolation but as a part of the total policy package. Some measures mounted for an assistance policy in countries like Bangladesh to redefine approaches and administration of financial assistance policies indicate the lacunae and inappropriateness of approaches in this regard.

#### *Market Development Assistance*

In terms of policies and programmes, the Governments have shown much less awareness for development of market linkages for SMIs. The lessons of Korea, Taiwan, Singapore and now Thailand tell us, how important it is to identify market linkage and competitive strength. The SMIs suffer from a great deficiency in this respect. In India large domestic market has provided them with a buffer under a reservation policy. Such protection is temporarily helpful. The long term solution lies in product development, quality control, standardisation and cost-efficiency as per need and dictates of the changing market science. Concerned authorities with the help of donors could help in the re-orientation of policies through appropriate technical assistance for evolving a marketing policy for the SMI sector in general and to identify the growth sector within SMIs in general.

#### *Administrative Simplification*

All the four countries studies have indicated bureaucratic complexity as one of the prime factors that keep SMIs at a disadvantage in matters of import, export, finance, license to operate, and what not. The one stop system at the industrial estates for all such administrative requirements have been recommended as a solution. But the political economy of bureaucracy and the influence of power lobby seem to have made administrative simplification a difficult goal to attain.

*Rationalisation of Macro-Policies*

All studies provide interesting examples of how SMIs promotion policies have been neglected by discrimination against them in trade policy, interest rate policy, investment policy, foreign exchange policy, foreign investment policy as well as financial and fiscal policies. Much of these are the result of the influence of the powerful industrial lobby and the aggregative growth model. Thus to promote rationalization in macro-policies disaggregated model (involving VLI, LI, MI, SI, VSI, and CI) need be constructed for the entire continuum of very large to cottage industries so as to trade off benefits and costs in order to promote efficiency and social benefit over time. Including employment, improvement of skill and technological upgradation. The studies indicate the discrimination against SMIs and the Philippines study suggest a discriminant analysis for SMI promotion and assistance policies can help to identify the impact of such policies on SMIs. Much work is needed in this direction. Concerned authorities in Bangladesh should be interested in this as SMI is an important growth sector.

**CONCLUSION**

Considered in the perspective of the policies that have been discussed above, the one page discussion of SMI in the Fourth plan does not provide us with any awareness of the policy reforms and promotional programmes needed for this sector. Bangladesh does not seem to have learnt from its own failures and success that have occurred elsewhere in the Asia and the Pacific region.

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## SOME THOUGHTS ON THE TRANSPORT POLICIES OF THE FOURTH FIVE YEAR PLAN

A.T. M. ZAHURUL HUQ\*

### 1. INTRODUCTION

The transport sector in Bangladesh is still undeveloped. Although after the war of independence in 1971, Bangladesh government adopted a number of policy measures for improving the facilities and services of this sector, no substantial change has taken place. In different plans a number of strategies and policies have been adopted but actually these policy measures could not produce any expected result. This statement particularly applies to the urban transport system of the country. Despite these measures in the different plans situation in some instances deteriorated over the years. In consideration of the present state of transport development in this country, the Fourth Five Year Plan has reiterated some of the policies of the earlier plans. In this context mention may be made of policies with regard to increasing participation of the private sector in road and inland water transport, better management and improvement of regulatory system and elimination of slow-moving vehicles from the urban areas in a phased manner. The present paper aims at reviewing the above mentioned policies in the light of their practicability and socio-economic impact in the event of implementation of these policies. The paper has particularly concentrated on the policy implication of eliminating slow-moving vehicles from the major cities like Dhaka, Chittagong, Rajshahi and Khulna.

### II. POLICY RELATING TO SLOW-MOVING VEHICLES

It is worthwhile to mention that out of three common modes of transport such as rail, road and water, although railway is exclusively operated by the public sector, the other two modes are run simultaneously both by the public and the private sector. In the road and the water transport preponderance of the private sector exists in the country. In road transport the private sector owns 94 per cent of total buses and 98 per cent of truck fleet (BIWTA) and carries overwhelmingly a major share of country's road

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\* Professor of Economics, University of Dhaka.

It is to be mentioned that plying of these slow-moving rickshaws are restricted in few busy roads in Dhaka city only. No doubt, this arrangement has facilitated movement of the cars and other mechanized vehicles and traffic jams are found to be comparatively lesser in these roads. Thus, from the point of view of movement of mechanized road transport in the city like Dhaka elimination of slow moving vehicles does not appear to be undesirable. In almost all the big cities of the world, slow-moving rickshaw do not exist (except in some cities of India). This has definitely facilitated movement of cars, buses, trucks and other mechanized road transport vehicles. Besides, traffic control problems in those cities are found to be lesser than the ones which we come across in our metropolitan cities. In consideration of these advantages of eliminating slow moving rickshaws from the point of view of suppliers of transport services, the policy measures proposed in the Fourth Five Year Plan is commendable.

Although from supplier's point of view this type of measures is desirable for metropolitan areas, the problem has some additional dimensions from the users' point of view as well as providers of the slow-moving transport services in the metropolitan areas and other cities of the country.

#### *Problems of the users*

There is no denying the fact that slow moving rickshaw is mainly used by the middle class people who do not possess cars of their own. Bus, minibus, auto-rickshaws, tempos, Mishuk (new version of rickshaw) are time saving vehicles and normally preferred by passengers travelling over longer distance. Besides, buses and minibuses are still the cheapest modes of transport; while rickshaw now charges Tk. 2 per mile, bus fare per mile is only Tk. 0.20 [4]. But it is found in a number of studies that because of certain advantages rickshaw is preferred to buses by the middle class city dwellers. Firstly, by using rickshaw one can move from one area to another where buses do not ply or are not available. Secondly, rickshaw can provide door to door services which the travelling public may not get if they travel by buses. Thirdly, many of the travelling public because of over crowded seating arrangements and lack of space in the buses do not prefer to travel by buses/minibuses. The same is the case with the tempos plying in the city. Autorickshaw being quite expensive, except in urgent need and distant travel, rickshaw is preferred to all these mechanized modes of transport. Withdrawal of slow-moving rickshaw from cities will, thus, create difficulties for these travelling public. Of course, if adequate number of buses, minibuses, tempos and other mechanized transports can be

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ensured in all the roads and streets of the city, absence of rickshaw services may be compensated by mechanized transport services in the city. But as the situation exists, there is inadequacy of buses and minibuses in almost all the cities of the country. Under the present state of availability of mechanized road transport vehicles, complete withdrawal of slow-moving rickshaws will increase sufferings of the travelling public of the city.

#### *Socio-Economic Impact*

Apart from the problems and difficulties which might come forth in the event of eliminating slow-moving rickshaws from the cities, there are some socio-economic impact associated with the policy measure of withdrawing rickshaws from the metropolitan areas. It is admitted by all concerned that transport sector does not only provide services but creates employment opportunities for the urban people too. According to Labour Force Survey of 1985-86, total civilian labour force of the country is 30.9 million of which the urban civilian labour force appears to be 4.6 million [3;101]. There is no accurate estimate of employment of this civilian urban labour force of the country. It is, however, gathered from different sources that the transport sector absorbs a significant portion of the urban labour force of the country. Although information on labour absorption in different metropolitan cities and small towns of the country is not readily available, some information on Dhaka city in this respect may be presented here. Moreover, some indirect estimates of employment in the transport sector in other cities may help understand the impact of withdrawal of rickshaws from the cities.

It is found that more than 28 per cent of the household heads in Dhaka city are absorbed in the transport sector [5] and 23.20 per cent of these absorbed people are found to be rickshaw pullers, 2.6 per cent are drivers of mechanized vehicles and 2.5 per cent are push cart pullers. Although accurate estimate of the number of rickshaws in Dhaka city is lacking, different estimates suggest that the actual number of rickshaws exceed 1 lakh. According to Shankland Cox, there were 50,000 rickshaws in 1981 while another study [4] stated the number of rickshaws to be 1 lakh in Dhaka city although officially the number is stated to be a little more than 88 thousand (The Bangladesh Observer, 1989). Another study on transport and traffic in Dhaka city mentioned the number of rickshaws in Dhaka city as 1.25 lakh [1]. However, if the number of rickshaws in Dhaka varies between 1 lakh and 1.25 lakh at least, then assuming 2.5 pullers [7] per rickshaw, there will be an estimated pullers between 2.5 lakh and 3.13 lakh in Dhaka city. Besides, about 0.30 person per rickshaw is found to be associated with rickshaw business who earn their income as owners, licence brokers,

rickshaw builders and mechanics [7]. This leads to a total of 2.8 lakhs to 4.1 lakhs of urban people employed in the Dhaka city's rickshaw transport. It is gathered from different sources that almost all these rickshaw pullers come from rural areas and they not have any permanent footings in the city. It is, thus, apparent that if the rickshaws are withdrawn from Dhaka city 3-4 lakhs of poor unskilled people will be thrown out of jobs and as a consequence they will be deprived of income which they earn from this mode of transport. In a country where unemployment as well as underemployment is a serious problem, withdrawal of rickshaws will aggravate the unemployment situation of the country.

It may be mentioned that in Chittagong metropolitan area 33,935 rickshaws have been registered by the municipality [2]. In Khulna and Rajshahi registered rickshaws are stated to be 8,654 and 3,625 respectively. Assuming 2.5 pullers and 0.3 associates per rickshaw approximately 95 thousand people in Chittagong, 25 thousand in Khulna and 10 thousand in Rajshahi are believed to be engaged in rickshaw transport of these three metropolitan areas. In other towns like Comilla, Sylhet, Mymensingh, Barisal, Jessore, Bogra, Dinajpur and Rangpur, the numbers of registered rickshaws are shown to be 6,600, 3,465, 3,769, 3,421, 4,200, 4,615, 3,427 and 7,447 respectively [2]. Assuming the same number of persons engaged in rickshaw pulling and other associated works a rough estimate for persons engaged in rickshaw pulling may be made. Persons engaged in this job, accordingly has been estimated to be 18 thousand, 9.7 thousand, 10 thousand, 9.6 thousand, 12 thousand, 13 thousand, 9.6 thousand and 20 thousand respectively in the above mentioned towns. It is evident from above that if the slow-moving rickshaws are withdrawn from the metropolitan areas only, more than 4 to 5 lakhs of poor people will be jobless. This will create some social and economic problems for the nation which needs to be obviated by providing alternative job opportunities for these people.

### III. RECOMMENDATIONS.

It is, however, to be stated that if in the interest of better management and efficient transport services the policy measure of eliminating slow-moving rickshaws are implemented, the urban transport planning has to be considered from two angles of vision viz transport planning with slow-moving rickshaws (as elimination will be by stages) and transport planning without rickshaws.

*Transport Planning Without Rickshaws*

It is appropriate to state that in the event of withdrawal of rickshaws by stages and restricting plying of rickshaws on busy roads, some compensatory measures have to be adopted. Firstly, in the busy roads where rickshaw will be restricted, sufficient number of buses/minibuses with regular frequency will be ensured so that the travelling public may go to their destination without delay and difficulties. Secondly, because of restriction of slow-moving rickshaws on important roads diversion of these rickshaws will take place and consequently other roads where rickshaws are allowed will be flooded by these rickshaws and create more traffic jams and accidents on these roads. In these cases, the existing regulatory systems and law enforcing institutions which are ineffective and devoid of co-ordination has to be activated and traffic rules also has to be strictly imposed without any discrimination. Thirdly, it is necessary that if the policy of gradual withdrawal is to be implemented new licence and renewal of licences have to be stopped. Although municipality claims that no new licence is being issued at present, the number of rickshaws are not decreasing rather increasing gradually. It seems that many of the rickshaws are plying without licence either in connivance with the licence issuing authority or beyond the knowledge of this authority. In order to eliminate rickshaws by phases, it is absolutely necessary to stop renewing rickshaw licence or issuing any new licence. Fourthly, for eliminating rickshaws from the roads of the city, phased out programme for elimination has to be expedited and number of mechanized vehicles has to be increased sufficiently as quickly as possible.

*Transport Planning With Rickshaws*

As mentioned above, if rickshaw is withdrawn from the cities above 4 to 5 lakhs of poor people will be jobless only in the four metropolitan cities. If the cities all over the country are taken into consideration number of such jobless poor people might exceed 10 lakhs. It will be a real national problem, how to absorb the huge number of jobless unskilled people in the economy. In the backdrop of the present growth rate of employment generating position of the economy, it can be visualized that this policy measure will create serious social and economic problems in the country.

In view of these problems, one can think of urban transport planning with slow-moving rickshaws even. If sufficient number of mechanized vehicles can not be provided in the cities, separate lanes and by-lanes strictly meant for rickshaws may be constructed (as is found in some Asian countries even for motor cycles). These lanes should not be allowed to the

pedestrians or any other vehicles and it must be ensured that the slow-moving vehicles are not using any other parts of the roads excepting these lanes and by-lanes meant for them. Here, of course, improvement of regulatory system and traffic control measures must be geared up. Honesty and sincerity of law enforcing agencies will go a long way in making these traffic rules more effective and operational.

It is worth mentioning that retention of rickshaws will not only keep the rickshaw pullers in work but it may also save the economy from fuel consumption expenditure and air pollution which almost all the modern cities of the world are suffering from at present. It is reported that due to ineffective institutional arrangements and lack of enforcement of existing regulations, cities of Bangladesh are having many road unworthy vehicles. The vehicles are emitting black smokes and polluting the air. It is observed that SPM (suspended particulate matters) in some areas of Dhaka city has already exceeded standard limit for residential areas. In other words, the pollutant concentration particularly SPM has exceeded the standard  $200 \mu\text{g}/\text{m}^3$  in the areas under RAJUK [6].

If the number of buses and other mechanized vehicles are increased sufficiently, the nation will have to face its consequences in two ways: by spending more money on fuel for mechanized transport and by adding to pollutant concentrations in the residential areas of Dhaka and other metropolitan cities. Thus, the policy measure for gradual elimination of slow-moving rickshaws has to be reviewed, With utmost caution.

Although the FFYP proposed such policy measure of eliminating slow-moving vehicles by stages, it has not spelt out the alternative measures for overcoming over crowdedness in other roads resulting from restriction of rickshaws on busy roads of the towns. The plan should have clearly specified the measures which should be followed in the event of elimination of rickshaws by phased manner. Nor does the plan seem to have taken into consideration the impact of the policy measure on poorer section of people and environmental balance of the cities. Here lies the main shortcomings of the policy measure for urban transport planning as proposed in the Fourth Five Year Plan of Bangladesh.

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## PRIVATISATION OF PUBLIC ENTERPRISES IN BANGLADESH

MUZAFFER AHMAD\*

### INTRODUCTION

Privatisation is the obverse of the public operation. Hence it is difficult to separate the two. In recent years public enterprises have become the focal point of attack and it seems to appear defenseless. Bangladesh has been accorded the 'honour' of being the champion of privatisation. But all is not well in the kingdom of Denmark. Why it is so and how it can be remedied are the primary concerns of this essay and not the process and extent of privatisation.

The next section provides a neo-classical theoretic presentation of public-private divide. The section following that deals with the management of public enterprises in Bangladesh under various regimes wherein lies the roots of the accusation of their non-performance. The fourth section presents a politico-economic explanation and tries to put present objective realities of the nature of the state of Bangladesh as an explanation for the recent privatisation move. This is supplemented by a discussion of donor dialectics. The section following critically reviews the changing industrial policy in Bangladesh and the resultant public-private divide. Section six deals with the non-success, in the context of performance, of the privatisation policy in Bangladesh and adds on views about an ideal process for privatisation contending that it is the failure to pursue the proper process of evaluation for divestiture that has caused the non-performance in disinvested units. The section before the last one deals with the remedy from the malaise created by privatisation drive. It is followed by conclusions.

### PUBLIC-PRIVATE DIVIDE IN AN OPTIMAL ECONOMIC ORDER

Economists, primarily concerned with economic rational of public enterprise intervention, have assumed away ideological, historical and political factors and treated government as a rational decision maker concerned with minimising cost and maximising benefits of economic intervention. The quest is for an "optimum organization of the economy" as espoused by Jan Tinbergen and this optimum is defined in terms of Pareto efficiency criteria.

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\* Professor, Institute of Business Administration University of Dhaka

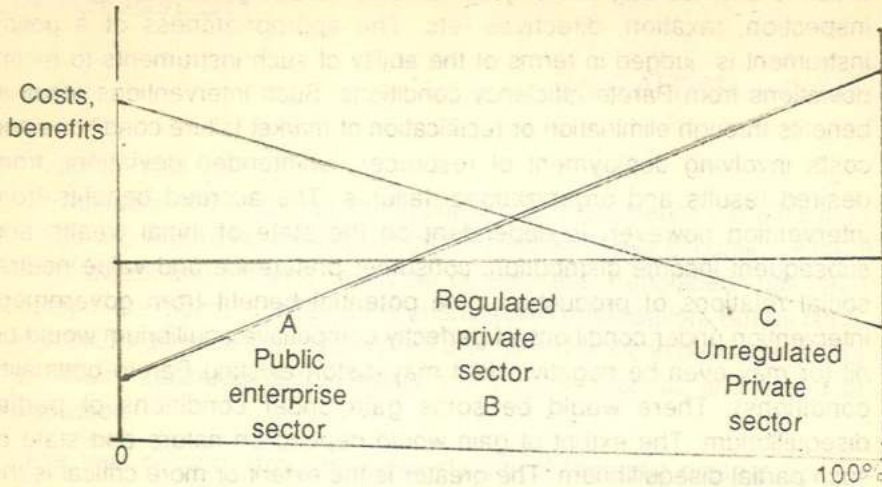
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Public enterprises need be viewed as a part of public policy package which is a mixed bag of many instruments including advice, registration, inspection, taxation, directives, etc. The appropriateness of a policy instrument is judged in terms of the ability of such instruments to rectify deviations from Pareto efficiency conditions. Such interventions result in benefits through elimination or rectification of market failure conditions and costs involving deployment of resources, unintended deviations from desired results and organizational failures. The accrued benefits from intervention however, is dependent on the state of initial wealth and subsequent income distribution, consumer preference and value neutral social relations of production. The potential benefit from government intervention under conditions of perfectly competitive equilibrium would be nil (or may even be negative as it may distort existing Pareto optimality conditions). There would be some gain under conditions of partial disequilibrium. The extent of gain would depend on nature and state of such partial disequilibrium. The greater is the extent or more critical is the disequilibrium, the greater is the potential for benefit from appropriate government intervention. The extreme case would be the one of general disequilibrium where maximum benefit would be achieved from government intervention (including public enterprise) which helps to move towards Pareto efficiency condition.

The costs of public intervention involve direct resource deployment. This is the direct cost. This cost may be augmented by unintended deviation from results including organizational failures and reduced by inefficiency/ managerial failures in similar private initiatives and organizations. These gross and net cost of public intervention could be separately treated for public enterprises and other intervention mechanism in order to establish the optimal public enterprise intervention area. In graphical presentation, for the sake of conveniences, we shall assume that benefits and costs could be presented in descending and ascending order respectively and the sectors remain the same for benefits as well as costs of public enterprise and other public intervention.

The benefits of public intervention in condition of non-Pareto efficiency optimum but accepting initial wealth distribution, consumer preference and social production relation is shown by curve No. 1. Costs of public enterprise intervention involving resource costs and costs of deviation is shown by Curve No. 2. Similar Costs of other types of public intervention is shown by curve No. 3 (see Figure 1)

Figure-1: Share of Economy



In the area marked 'A' cost of public enterprise intervention is lowest while benefits from public intervention is highest. In the area 'C' the benefits of public intervention is smaller compared to any kind of public intervention. The sectors in area C would be better off without any kind of public intervention. The sectors (or sub-sectors) in area A would call for public enterprise intervention despite its certain unintended inefficiency. The area B calls for public intervention but other kinds of public intervention is less costly than public enterprise type of intervention. Thus in these sub-sectors private sector would operate but they would be under private ownership subject to control and regulation by the public sector. It should be clear that any economic policy attempt to determine public-private divide and regulated private and uncontrolled private activities would depend on the relative position of these curves in the economies. Without these considerations, there can be no universal prescription for privatisation or de-regulation.

Neo-classical economics as it discusses public policy, which is a product of the power apparatus of the ruling coalition, ignores interlinkages between polity, society and economy. While the neo-classical economists consider public enterprise a deviant solution in the absence of a perfectly competitive economy, the proponents of a politico economic approach consider them to be a positive institution and an important alternative for mobilisation and allocation of resources in a given context. The role and function of public enterprises vary with the nature of the state and only with the marginalization of the state power and management of economic

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resources the role of public intervention, including public enterprises can be marginalized. It is the socio-political exigency as perceived by the ruling interest coalition that determines the size and structure of public enterprises including the mix of public private sectors involving growth or decline of one or the other. Hence the public private divide cannot be fully understood in terms of the theory of optimal economic order; instead an appropriate approach would be to look at the total system consisting economic, political and social sub-systems as well as the configuration of interest groups.

There has been a reversal in the emphasis on the role of public enterprises in the 80s with rise of conservative economics in the dominant developed countries and dethronement of the Keynesian economics which dominated the policy making in those countries since the 50s. The impact of this reversal has spread to the developing economies notwithstanding the LDCs, through the bilateral and multilateral aid conditionalities with the fervour of a theological commitment in contradistinction to ideological predilection of the socialistic countries in the post second world war era. This change has coincided with weakening of the relative economic power of the second world, demise of the leaders of the decolonization movement in the third world, economic shocks emanating from rising oil prices, energy crisis, spiraling of prices of capital goods, adverse terms of trade for third world exports, decline in the real value of official development assistance, consolidation of aid dependent nondemocratic regimes in many of the developing countries, rise of newly industrializing economies which are dependent on the western economies and need for interlinkages between the market barons of the western world with the compradors in the expanding economies of the developing world. This politico-economic context has purposively been underplayed.

Thus privatisation phenomenon in the context of public private divide lead us to two testable hypothesis. First, adhering to the neoclassical economics, the costs of public enterprise intervention in relation to benefits therefrom has shifted in a manner that all or most of the cost curve lie above the benefit curve. To the best of my knowledge except for providing some data on financial loss, nobody has carried out a scientific study in this regard. Second, political and social sub-systems either for changed indigenous configuration for exogenous linkage or both have found that the interest of ruling coalition is better served under a private sector regime with benign helpful patronage of foreign aid donors; some studies on the second have been done, much more remains to be done.

#### MANAGEMENT OF PUBLIC ENTERPRISE IN BANGLADESH

Public enterprises were not established overnight after the liberation of Bangladesh, they existed as part of the developmental strategy during the post independence period (1947-1971) and even before that during the colonial period. It is reported that there were more public enterprises in India before partition than in Britain. Management is a vast area, the handbook on Business Administration delineates it into seventeen major areas and one hundred and seventy sub-topics. The international Center for Public Enterprises through their books, monographs, conference proceedings and the journal have dealt with scores of issues and aspects, often in a comparative perspective. It would be difficult to deal with even those issues adequately. The author himself had touched on many aspects of public enterprise management, it would indeed be difficult to accommodate those. Hence the discussion would be selective and may even be purposive. The primary basis of selection would be the areas underscored by donor agency and national development documents.

#### *PE Management Issues at Liberation of Bangladesh*

It is not true that PEs during Pakistan regime did not face any management problem but official documents or academic research do not adequately reflect them. Even then, viewed as complementary to or supportive of private enterprises, the basic management issues documented were:

1. Cost and time over-run in project implementation coupled with inadequate financial flow for investment from annual development budget,
2. Absence of prioritisation of investment often due to politico bureaucratic intervention,
3. Inadequate government-PE interaction in policy formulation,
4. Secondment of non-professional bureaucratic personnel at top management,
5. Absence of a corporate plan,
6. Lack of Meaningful inter sectoral linkages.
7. Lack of public accountability,
8. Inadequate career planning,
9. Labour management problem including absenteeism and unrest.

The liberation war changed the scenario completely. The zeitgeist of post-liberation Bangladesh was not in favour of a policy of sponsored spoonfed protected and governmentally secured capitalist growth which

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would depend on liberal finance from government institutions, subsidised land, controlled labour, protection from competition, liberal tax concessions and overt or covert subsidy. The political commitment of a people-oriented publicly owned productive sector in the context of abandoned non-Bengali owned production and service units alongwith the rise of radical labour and student groups created the objective conditions for nationalisation of jute and textile industries alongwith financial institutions, taking over of all abandoned units, and adoption of a policy that was purported to check concentration of wealth in few hands even when the ruling party was itself a coalition of petty bourgeoisie. Much of the PE management problems emanated from hesitant governmental psychosis which failed to create a people oriented public sector culture in bureaucracy, PE management, trade unions and other controlling/interest groups.

What management problems were faced because of this change over in policy, ownership pattern and ideological pronouncement, Rehman viewed all of them as problems of managing a transition. Amongst the problems one was of getting professionally competent people in the top management at the newly setup corporations. This was done without much difficulty because of the presence of a group of competent professionals in the public sector. This was not so competently done at the enterprise level due to vacuum created by departure of non-Bengali Managers, political intervention in favour of party-men or relatives, auto promotion claimed by existing lower ranking functionaries, influence of ex-owner lobby who wanted to associate themselves and militant labour who thought they owned the enterprises. The problem created by ad-hoc approaches to enterprise management was not fully over even at the stage when large scale disinvestment was accepted as a policy. Besides the problem of insufficiency of professional managers, there existed a problem of insufficiency of skilled labour, particularly in engineering industries. As a consequence of labour involvement in the autonomy movement and liberation struggle, the problem of labour indiscipline resulting in reduced work efficiency remained and continued due to political dependence of all regimes for their support in mass rallies.

The serious problem in transitional management was getting the production and service units back to pre-liberation level of production. Some of these units were devastated by war. The inventories of raw materials were low, availability of spares and consumables was made difficult in the face of nonexistence of foreign exchange reserve, power supplies needed

to be restored, transport system was disrupted, the markets were lost and finance of abandoned or nationalized enterprises showed a negative balance. Thus, even when professional managers were put in places, rehabilitation of disrupted enterprises and nursing them back to normal state of affairs provided a challenge that was taken up courageously in the expectation that the government would be able to adopt a production oriented institutional and policy mechanism to help them to overcome the crisis of transition. The management of transition of public enterprises in Bangladesh involved all aspects of production, finance, personnel and marketing.

*PE Management Problems and Solutions thereto Under First Plan*

First five year plan of Bangladesh was based on the premise of widespread dislocation in the enterprise sectors, radically changed ownership in those sectors and political commitment to socialism and democracy. The plan recognised the fact that the social and economic objectives of the expanded public enterprise sector was not clearly understood neither at the policy-making level, nor at the top management level nor at the level of employees. This resulted in the continuation of colonial bureaucratic control oriented culture at the ministerial level which in the face of cut in salaries and benefits in the public enterprises created a positive disincentive. The attempts to frame rules of business to reduce discretionary intervention was frustrated by the entrenched bureaucracy.

The public enterprise sector was in need of a cadre of socially committed professional managers so as to harness the best out of the existing production potentials in the enterprise sectors. There was shortage of professionally competent management personnel across the functional lines and hierarchy except for those who came primarily from former public sector units; this vacuum could not be filled overnight. The planners emphasized on an intensive management development programme and creation of management cadres on the basis of competence only. This attempt was frustrated by massive induction of politically chosen youths whose behavioural norms were generally at variance from those required for managerial work in the public sector enterprises.

The plan specifically recognized that in the absence of a committed managerial cadre and work force, motivational climate can only be created through an incentive structure built into wage, salary and benefit system that rewards productivity and efficiency, it also advocated social recognition for exemplary work. The pay commission and the wages commission failed

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to pay adequate attention to these concepts and treated productive and regulatory sectors as well as goods and service sectors alike. Moreover in order to be more pro-labour than called for they failed to link claims for bonus to appropriate productive efficiency and financial viability of the enterprises. This in the face of militant trade unionism patronised by ruling regimes created a positive disincentive for productive work. It goes to the credit of committed management that they performed in spite of such atmosphere of widespread insubordination and indiscipline.

The plan recognized that absence of a professionally competent and socially committed cadre and presence of a illdisciplined trade union would create difficult conditions for management particularly at the enterprise level. In this context plan advocated a participatory management system at the shop-floor and enterprise level where an informed labour group would appreciate the constraints and opportunities of the enterprise and a professional management would cultivate comradarie for achieving production targets. The opposition from the trade union groups and traditional hesitation of the management who believed largely in theory 'x' led to non-adoption of such an approach.

The framers of the plan were firm believers in enterprise autonomy so that responsibility for performance could be fixed at the centres of activity. They viewed the corporations largely as a coordinating, supervising and monitoring unit keeping liaison with government and external bodies on behalf of the enterprises. The ministerial control was to be minimal and the accountability to the parliament was to be performed through the Minister.

This was never achieved. Autonomy and delegation are not matters of rules but a matter of trust and willingness to bear the consequences of a given responsibility. The enterprise management rarely achieved this vis-à-vis the corporations and the corporation management failed to achieve this in the face of bureaucratic opposition and erratic personnel decisions.

For monitoring performance, the planners devised with the help of a consulting firm, a MIS system in place of traditional cumbersome reporting from time to time. MIS was to focus on production, procurement, inventory, employment, machine time and labour time utilization, important cost centres, profit/loss position, liquidity as per cash flow, and financial health of the enterprise of a corporation. The system was introduced but the data so generated was rarely used by top management or Ministry for decision-making. This was largely due to the fact that criterion for performance evaluation was not predetermined and performance and reward were hardly

cor-related. The review meetings at the ministerial or higher level rarely reflected an understanding of the management information vis-a-vis existing or ensuing problems with a view to forestall or solve the problem.

The first plan was basically a rehabilitation plan. The emphasis was on capacity utilization. This required production planning under severe financial constraints. The approach promoted by the planners was to utilize maximally the inter-enterprise, inter-industry and inter-sectoral linkages so as to minimize the need for circulatory capital which was short in supply. This seemed to work fairly well with coordinated assistance from the financial institutions. However, the production planning remained a top down exercise and never achieved an interactive character. As a result after a reasonable degree of rehabilitation, this interlinkage system of production planning in the public sector enterprises lost its effectiveness. Further, being a top-down process, the commitment from the enterprises were lukewarm. At a later stage, aid dynamics alongwith rent seeking opportunity offered by indenter lobby, created a built-in preference for imports, impairing the envisaged production planning and management system.

Production planning required an assured supply of material inputs as well as electricity and transport facilities. The later two were severely damaged during the war but within a reasonable time they were put back to workable level; however, efficiency of these two sectors remained low. Production also required programming for imports, spares and consumables. To minimize foreign exchange requirements, inventory and stores management had to be efficient and inter-unit cooperation in this regard were asked to be maximal. However, in the face of less-than efficient enterprise level management and non-cooperative labour unions such a process hardly worked. Rationing of scarce foreign exchange, in the face of demands from other sectors, were done on the basis of crisis management and it lacked a long term strategy. In the absence of assured power supply and supply of critical inputs, the desired level of productivity could hardly be achieved and trade unions took full advantage of this situation in claiming productivity and efficiency bonus as "non-attainment of target were due to factors beyond their control". This eroded financial viability of the enterprises.

All taken over or abandoned units faced severe financial constraints as its former owners including Bangladeshi owners had incurred huge liabilities with financial institutions and left back only what they could not physically remove. To make these units work, with no inventory of raw

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materials or outputs required large infusion of working capital. The nationalized financial institutions were asked to come to their assistance with the promise that their representatives would sit on the enterprise boards. This in reality never happened. For the units which were able to earn a surplus such liabilities were liquidated within a reasonable period and reserves were built up. But for those which failed to generate adequate surplus or generated no surplus, infusion of funds from nationalized financial institutions under instruction from the Ministry of Finance and with concurrence of Bangladesh Bank became a regular feature. This was particularly true for the jute sector which earned valued foreign exchange but suffered financially due to over-valued nature of the currency.

In the case of procurement of inputs, the public enterprise sector were the prime target of tied commodity aid which often meant high price low-quality of inputs. Insufficiency of free foreign exchange after meeting needs of food and fuel imports, imposed an extra cost on public enterprises. On the other hand, much of the output prices were controlled by the government, be it yarn or edible oil or petroleum or cement or fertiliser. Thus the public enterprises suffered as they failed to pass on the high cost of inputs or cash in the scarcity value of the output. The rent was however, encashed by middlemen as distribution was largely done through private sector dealers. Even though foreign trade was initially state controlled, domestic trade was dominated by private sector. The pricing policy did not help the public sector units to regain their financial health.

The public enterprise sector was considered to be prime mover in providing employment, and thus man-machine ratio, particularly because of infusion of indirect labour or personnel, went against the public enterprises.

Sobhan and Ahmad, after researching on the performance of public enterprises during 72-75, concluded that it was the high sense of commitment on the part of top management in the corporations which made rehabilitation of public enterprise sector possible in the face of severe odds.

### *Public Enterprise Management under Military Bureaucratic Regimes*

The commitment to public enterprise was waning even under the democratic regime of Sheikh Mujib when radical units formed a separate constituency and the economy came under severe pressure from oil-shock, world recession and famine. The protagonists of private sector

made themselves visible and restriction on private sector were relaxed with the change in the governance; the pace of reversal was quickened as the new regime, to launch its campaign for political legitimacy, required support and finance from the existing and emerging bourgeois and petty bourgeois who demanded larger share in trade, transport and industry. Even though the dominant public sector regime (73-78) recorded an annual growth rate of 9.2% in the industrial sector alone despite heavy odds, the two year plan failed to provide a desired policy recommendation for management improvement of the public enterprises. The reversal in state policy created a different perspective for the public enterprise sector. The basic *raison d'être* was taken away by the new regime and the distinctive purpose and underlying principles were lost. In the circumstance the public enterprise management succumbed to the dominant interest group manifested through military bureaucratic regime. Relegation of ideology was not substituted by any clear statement of objectives for public enterprises. Thus the public enterprises became agents without principles and agents with too many interventionist principals. The political expediency and vague liberalisation approach, even with re-structuring of public enterprise sector alongwith strengthening of the ministerial control, did not create an environment for promotion of efficiency to be judged in terms of labour productivity, minimisation of cost, realisation of targets or reduction of wastage which were espoused as desired goals.

The government was set "to promote private investment" through open or hidden subsidy including handing over of public enterprises at an artificially low price to be paid over a long term for which special loan was arranged from nationalised banks. A concerted campaign through inducement, stimulation, subvention and special privileges were mounted. The Zia regime needed public sector for development and political patronage of labour, indentors and distributors, but there was a need to create a power base amongst the middle class through promotion of private sector who were unwilling to take advantage of freelist and restrictions on public sector investment. The regime failed to work out a public private sector divide which would satisfy their espoused ideology of social justice. nsuch a state of public enterprise the development of management culture was halted. As a result the committed top management of public enterprises became vulnerable and they stopped from taking initiative as they did in the earlier regime causing a management and organizational failure, while the market failure in the private sector persisted. The problems in finance, production, personnel and marketing, which were getting under

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control, re-emerged providing basis for 'privatisation' under the régime that followed Zia and Sattar.

#### POLITICAL ECONOMY OF PUBLIC ENTERPRISE IN DIFFERENT IDEOLOGICAL ORDER

It has been noted that reasons for establishing and retaining public enterprises could be due to numerous reasons which may be broadly classified as historical heritage, ideological predilection, acquisition and consolidation of political and/or economic power and pragmatic response to economic problems. The economic motives for public enterprise intervention have been grouped under prevention of market failure and correction of market imperfection, promotion and acceleration of economic growth, creating economic base for socially just and equitable society as well as appropriate provision for public and economic goods and revenue. I have elsewhere argued rational economics is limited in its capacity to explain the public enterprise phenomena which is a joint product of political and economic considerations of the coalition of social interest groups that wield the political power.

In order to explain the diverse public-private enterprise nexus in the post-colonial developing countries, Sobhan and Ahmad independently developed certain broad paradigm. In devising the paradigm they considered two broad variables related to the nature of the state; the first relates to the process of gaining independence i.e. whether it was through negotiation or through armed struggle and the second relates to the dominant ruling class reflecting the class character of the ruling class which was broadly divided into national bourgeois dominant at the one end and mass based populist coalition at the other end with intermediate regime a la Michael Kalecki indicating coalition of petty urban and rural bourgeoisie in the middle. The public-private enterprise relation could be classified as supplantive, substitutive, supplementary or supportive. The rationale for such relationship could be economic, social or political.

Recalling that private enterprise could be of foreign origin we would indeed be dealing with foreign, public and private enterprise nexus. In this context certain propositions can be summarily stated. First, if independence from the colonial power was gained through armed struggle largely participated and directed by mass based non-bourgeois organization which retain power to direct the policies of the state, then enterprises owned by colonial masters and their national collaborators would be taken over requiring the public sector to play an entrepreneurial role for ideological,

social and economic reasons. Thus the relation with foreign and large national enterprises would be supplantive. The public enterprise would be required to play a distinctive role in harnessing domestic resources for development, generate revenue for the government and develop capability to prevent concentration of private economic power and to provide efficiently public and merit goods on an equitable basis. This indicates that the role of private enterprise would be marginalised and role of foreign enterprise would be selective on the basis of economic and political compatibility.

Second, if mass based organization could negotiate independence from colonial power without recourse to armed struggle and if they retained the power of governance, then the take-over of foreign enterprise could also be negotiated and public enterprise would expand to organise production and to break up domestic economic power of the few. The dominant role of expanding entrepreneurial efficiency and distributional equity would ensure survival of much of democratic socio-political revolution.

Third, if a dominant national bourgeois gain independence through negotiation from colonial powers, the role of private sector is enhanced through supportive and supplementary activity of the expanded public sector to assume high risk, high investment and long gestational work. The role of foreign private enterprise when competitive would face limiting restrictions and substitution but when it is complementary and facilitative in favour of dominant ruling group, this would face expansionary phase to provide access to technology and markets abroad.

Fourth, if the ruling group is a national bourgeois coalition but the independence was gained through armed struggle which needed the mass to be mobilised, the foreign private enterprise would face take-over at least initially and public enterprise would expand for employment creation, development of small and cottage industries particularly in rural areas, as well as to provide supportive and supplementary facilities to private enterprise which would become part of the economic policy.

Fifth, in the case of armed struggle for gaining independence and domination of urban rural petty bourgeois combine in the policy making of state, public enterprises would experience an expansionary phase due to take over of foreign enterprises and large private enterprises particularly of the collaborators. Public enterprises would become the focal point for development and for consolidation of their political support base through

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employment generation, for provision of basic need goods, public as well as merit goods, as well as for limitation of concentration of economic power. The Private enterprises would be allowed to operate within defined norms and limits. These however, would not be allowed to grow or grow rapidly and their collaboration with foreign private enterprise would be severely restricted.

Sixth, if the intermediate regime gain independence from colonial power through negotiation and retain the policy making imperative in the absence of dominant national bourgeois group or an organised mass-based party, then take over of foreign private enterprises would not be imminent and friendly foreign private enterprises may indeed be invited for collaboration which may deepen through aid dependence; public enterprise sector however, would expand to assume entrepreneurial and development role with an intent to promote and support local private enterprise so long they grow in influence in accordance with the political need of the ruling power.

Given these proposition, I would like to suggest that in December 1971, a political party of petty rural urban bourgeois gained independence for the people of Bangladesh from an oppressive military bureaucratic combine which was made possible by a popular mass upsurge primarily radicalised by turn of events but leading to a partnership of the party of petty bourgeois with the mass-based populist organizations. This necessitated take over of foreign and selected large private enterprises. Such a policy was largely concentrated in areas of large and medium scale manufactures, finance and foreign trade while the presence of public enterprise in gas, electricity, water, municipal services, transport, post, telephone and telegraph as well as social and physical infrastructure were continued from past developmental approach under a private sector oriented mixed economy regime.

The limited but dominant entrepreneurial presence of public enterprise in finance, industry and commerce faced challenge from growing petty bourgeois who enjoyed patronage in trading and other service sectors when the ruling coalition changed and even before that due to lack of clarity of social and political condition by the leaders. Hence from a position bordering the first and fifth, the shift took place towards sixth and third. The privatisation in Bangladesh is a manifestation of the change in ruling coalition which has gained economic prominence from state patronage under military bureaucratic regime and is in search of a risk free quick accumulation of capital which, however, is not recycled for national development.

*Donor Dialectics*

Bangladesh is heavily dependent on foreign aid. Its development budget is almost totally dependent on donors generosity. No country in the world is so vulnerable to donor pressure than Bangladesh is. In years right after liberation the principal donors were India and the Soviet Union. Bangladesh even announced policies of non-acceptance of foreign aid which compromises its economic sovereignty and thus preferred bilateral to multilateral aid; she even refused overtures of assistance from the World Bank, even though a resident mission was allowed to function. This commitment to economic sovereignty and bilateral aid broke down under pressure of oil shock, international economic recession and domestic crop failure. With the change in attitude towards aid, USA emerged as the single most important donor, only recently the place has been taken over by Japan. However the influence of USA remains paramount because of its dominance in the multilateral agencies like the World Bank, IMF and ADB. The donor policies has been orchestrated through the consortium approach. Because of heavy dependence on aid and nonlegitimacy of military bureaucratic regimes in Bangladesh, the donors particularly the World Bank, IMF and USAID have tended to freely express their views on economic policy measures and the pressure on formulation and conduct of economic policy have been insurmountable. In the past decade the push has been toward privatisation, Raymond Vernon has explained this change in the context of international economic order which is 'an important question for US foreign policy and for the policies of various international institutions in which the US Government participates', because curbing the role of the state and elevating the role of private sector have implications for the international economic order which 'will be markedly different from prospects that seemed likely a decade or so ago'.

This change of policy with respect to privatisation came abruptly in the early 1980s and grew rapidly thereafter. Critics of public enterprises in the developing economies were in search of managerial and operational efficiency under conditions of autonomy and accountability as technical performance of public enterprises have not been found much different from private enterprises and social implication of public enterprise policy with respect to income and employment generation, provision of basic need goods at fair prices and regional dispersal made them essential element in development policy package, particularly in countries where entrepreneurial class was in short supply.

The cash deficits in public enterprise due to political control and

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patronage of the ruling regime deepened in early 1980s and concern about monetary implications of the operation of public enterprises in the face of slow economic growth triggered reactions to Government policies and raised questions about Government's ability to manage their national economic policies. The rise of managerial class in NICs under public enterprise system and their success in facing national and world economic crisis as well as changing international market structure suggested an option of reducing the public enterprise sector. This was considered a panacea by donors for all countries irrespective of their social, economic and political commitment and conditions. The prescription was same for say, Nigeria or Kenya and Brunei or Senegal on the one hand, Bangladesh or Nepal and India or Thailand on the other. This reflects ideological (perhaps theological) predilections in favour of less government rather than pragmatic and economic consideration in favour of efficiency and better society. The ideological commitment of the US government is manifested by USAID directive to its field offices in 1986s "to generate at least two privatisation projects in the succeeding year (s)".

The role of the World Bank and IMF and subsequently ADB in rolling back the public enterprise (and public service sectors), is noticeable. The Bank and the Fund have in their reports identified government intervention in the productive sectors as the villain causing backwardness and instability in the developing economies. The public enterprises have been portrayed as "privileged deadbeats" which inhibit "growth of private initiative" and push state finance to an "unsustainable state". Since the beginning of 1980s privatisation got relatively greater attention of the Bank and the Fund in their lending programme-involving divestiture and liquidation of PEs as part of policy-based finance. In quest of economic liberalisation and stabilisation through structural adjustment policies, the emphasis has been shifted from efficiency promotion in the public enterprises to visionary belief in the primordial superiority of private entrepreneurs who need be promoted and supported through subventions and policy support while such policies of support in favour of private sector small farmers were withdrawn.

From its birth, the World Bank has been wedded to free market economy irrespective of existence of severe market imperfections. The articles of agreement require the recipient countries to promote foreign and local private investment in all conceivable sectors. The Government was to provide institutional framework for the birth and growth of private entities through incentives and development of economic infrastructure which

would provide support to such ventures. The capital-intensive physical overhead capital was defined as the area of governmental operation. The Bank for two decades stubbornly refused fund to public sector productive enterprises irrespective of its socio-economic justification except for those where conditionalities included divestiture and privatisation.

This denied the Bank the opportunity to play greater role in the dynamics of development of many third world countries where local private ownership was a vision and where foreign private investment was anathema due to the colonial exploitation. The requirement of government guarantee for loans to private sector was itself a contradiction as this imposes liability of private persons on to the public in general and his failure would transfer the burden to taxpayers. To avoid this complication IFC was created to extend equity loan without government guarantee, while IDA was created to provide soft loan for infrastructural development. During successive years IFC remained "a relatively insignificant appendage" largely caused by lack of appropriate entrepreneurial interest while IDA assistance to LDCs expanded.

In the 60s and 70s the Bank recognized the role public enterprises can play in developing economies and direct financing of such enterprises, particularly in import substitution sector, took place and the Bank started to place funds with state-owned DFIs. With this change even IFC came forward to extend loan to enterprises where government held majority share capital. The concern was then how the enterprise is run and not its ownership.

In the 80s the Bank developed second thoughts in consonance with changes in USAID policy, the basis for this was the famous Berg report which laid the foundation stone for structural adjustment lending. This report blamed "excessive and misguided" interventions by the governments as the primary cause of national economic backwardness. The report passed a sweeping indictment against public enterprises for their ineptitude, disappointing performance and drain on the scarce economic resources. IMF also devoted its investigative attention to public enterprises simultaneously and concluded that public enterprises constitute an unbearable burden on the economies of the developing countries. It is not the place to get into the date, methodology and appropriateness of analysis. But it has been forcefully argued that such generalized conclusions are tenuous and not sustainable. While the heart of the concern should be economic efficiency, the drive towards

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privatisation under state patronage is rarely the answer in an unstable polity. While the Bank still expresses some ambivalence towards privatisation, the ideology seem to persist as a part of its lending programme.

#### CHANGING INDUSTRIAL POLICY AND PUBLIC-PRIVATE DIVIDE (1972-1990)

The industrial policy of the government of Bangladesh has changed overtime and public-private divide has similarly changed. In terms of the policy, the period could be divided into five distinct time phases i.e. 72-74, 74-76, 76-80, 80-82; 82-86, 86 to date.

##### *The Industrial Policy of 1972*

The policy was premised on the following fact. First, there was no established group of Bengali entrepreneur. Second, a small Bengali capitalist class grew under direct sponsorship of the state and they would continue to require liberal provision of equity and loan capital from public sector DFIs, subsidized land, generous tariff and non-tariff measures for protection against competition, controlled labour, liberal tax concession, etc. Third, abandoned units were denuded of liquid assets and much of the movable production machinery and inventories were run-down, and rehabilitation would require liberal capital infusion. Fourth, most of the trained managers and skilled workers in private units have left the country. Fifth, the objective conditions of the liberation and electoral commitment of the ruling party did not allow for patronization of or assistance for growth of a capitalist class who would wield dominating economic and political power.

As a consequence of these, the objectives of 1972 industrial policy were the following. First, rehabilitation of the war ravaged industrial sector and regaining pre-liberation level of production were accorded topmost priority. Second, it was considered necessary to ensure reasonable supply of essential consumer goods from local sources so as to hold down pressure on prices. Third, increase in supply of agricultural inputs for a breakthrough in the primary sector and ensure food security of the people were considered to be a basic objective. Fourth, development of capital goods industry and growth of indigenous technological capacity were considered vital. Fifth, balanced regional development, and wide distribution of employments and income in all areas were found necessary to meet aroused expectation of the people and for national integration.

In consideration of these, the strategy for private and public sector in manufacturing sector was defined and public sector was accorded the lead role in rehabilitation and development of large and medium scale industries

in order to reconcile with problems of scarce capital, antiquated technology, capacity and capital utilization, managerial and technical efficiency, reduction of labour conflict, streamlining of institutional finance and limiting the probability of the concentration of economic power. Contrary to what has been said so far, private sector was accorded a position within the limits of the law and the constitution of the country. At that time private sector accounted for nearly 40% of industrial output from 4236 units having fixed asset at book value of Tk. 300 crore which was 30% of all manufacturing fixed investment. Further the government earmarked 450 taken over units with an estimated fixed asset of Tk. 50 crores to be disinvested to private sector. The importance of private industrial sector was further recognized through an investment schedule which provided for Tk. 121.60 crores investment in private sector against Tk. 54 crores during 1965-70. However, certain limitations were placed on new private sector industries. Jute, textiles and sugar were out of their bounds. The investment per unit in fixed assets were to be below Tk. 2.5 million excluding land and an exercise by the Planning Commission and BSB produced a list of hundreds of industries where profitable investment within this limit was possible and necessary. There was virtually no sectoral limitation except the above mentioned three; there were no limitation on the ownership of number of units either; however, the growth of existing unit would have to be through reinvested profits. There was a moratorium on further nationalization with the proviso that the government could take over sick units for efficient operation. There was restriction on collaboration with foreign investors beyond licensing. Fiscal incentives, tax concessions and credit arrangement for private sector continued to be as before. The basis of this approach was ability of Bangladeshi investors to undertake entrepreneurial function in an unstable condition and the ideological predilection against the growth of an exploitative capitalist class.

The industrial policy of 1972 came under heavy gunfire. The policy was mostly criticized for stifling the private sector. However, it may be noted, that even during early days of liberation when conditions were not stable, proposals received from private sector by financial institutions and BSCIC were not insignificant. The criticism was against size-limitation, bar on foreign collaboration and exclusion of Jute and textiles. It may again be recalled that very few of the private sector industries, except in Pharmaceuticals, had foreign equity participation anyway. The policy was further criticised for providing limited scope to foreign investors (MNCs) requiring them to hold minority shares but providing for management

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contract in their favour as well as requiring them to collaborate only with public sector and to arrange for total foreign exchange needed for investment. Again, considering the unstable state, proposals received for joint venture with public sector during those days were not inconsequential and many of these, except those from India, have come to fruition later generally under those conditions. This policy was further criticised for taking public sector as prime mover of industrial growth without taking into consideration its managerial and technical limitation as well as possible bureaucratic and political intervention. It was also mentioned that public sector were left in the lurch because its economic and social objectives were not clearly defined and the trade off or compensation policy for accommodating political expediency were not spelt out. The objective conditions at that time, recalling that even before 1971 public sector in the then East Pakistan played the pioneering role in the industrialization process, did require an added dependence on the public sector and this was in consonance with the guiding principles of the state; the failure to promote entrepreneurial culture and a balanced government-corporation relation on the one hand and corporation-enterprise interlinkage on the other were more due to the obstacles created by bureaucracy and administrative inexperience of the Ministers rather than inadequacy of the policy. Finally, the criticism against the strategy for not highlighting the interlinkages within and outside the industrial sector, for not adequately emphasising the role of primary organizations of labour and development of managerial and technical skill, for not placing adequate emphasis on small and rural industries are only partially valid. But these relates to projects and programmes and not to the policy.

To sum up, the criticism was levelled against higher allocation in favour of large scale public sector industries which despite policy changes even continues till today. The criticism of discrimination against small and rural industries cannot be substantiated and there has been no material change in policy in this regard even after the rise of sponsored private sector under new policy. Indeed the indications are that the discrimination may have deepened. The criticism with respect to placing limitations on private sector is only partially valid. Even then it may be recalled that during the early years of liberation, 120 units were divested to private sector as per industrial policy of 1972.

### *Change in Industrial Policy (73-75)*

The private sector lobby within the ruling party remained active. They seem to have defined their strategy well. They did not openly challenge the

policy but emphasized that they wanted scope to make their own contribution to the development of the economy. Recalling that land and agriculture are otherwise wholly privately owned and operated, domestic trade was largely so, even indenting firms were hyperactive, the private sector soon became aspirant for larger visibility in the industrial sector. Mujib was persuaded to raise the investment ceiling from Tk. 2.5 million to Tk. 30 million. The parameters of public sector activity was defined as per Indian industrial policy which implicitly indicated that private sector was free to invest beyond the reserved areas for public sector and within limits in the reserved area. Collaboration with foreign investors was also allowed in the private sector. The limitation on private sector, except for investment size in the reserved sector, was removed. The fund availability to private sector from public sector DFIs was liberalized. Disinvestment of abandoned and taken over units was accelerated. Legal framework for foreign investment was under consideration. Thus the Mujib Government in 1974 adopted a policy of accommodation and accepted the logic of allowing the private sector to play greater role in the industries sector. Available data however does not show any acceleration in private sector investment nor did foreign investors show any discernible response. The only impact was on inflating the cost of investment by the private sector through overpricing of fixed assets leading to over-capitalization and defacto zero investment in the project. However, there was no meaningful policy or administrative attempt to promote managerial and technical efficiency in public as well as private sector. Monitoring and evaluation of industries released to private sector or newly sanctioned ones were totally absent. Thus an opportunist political patronage seeking group emerged and the real entrepreneurs were kept watching. Thus a class of robber barons who had no intention to become entrepreneurs emerged. This trend has been strengthened by subsequent policies.

#### *Further Changes in Industrial Policy*

After the assassination of Mujib, military bureaucratic combine that was ushered, made significant changes in industrial policy. The reserved list for public sector was reduced to utilities, energy and defense industry; thus the private sector was allowed the desired scope as demanded by them and advocated by the donors. Further, the ceiling on investment was first raised to Tk. 100 million and then totally abandoned. The government abandoned the policy of moratorium on nationalization and declared that no take over would take place. The DFIs were asked to provide liberal finance to private sector, in particular ICB was organized to provide equity finance

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and underwriting facilities to private sector. Private Sector DFI (IPDC) was allowed to function to attract foreign investment in joint ventures. The stock exchange was activated to mobilise and channel investible funds to private sector. The black money generated by private sector in trade, indeneing and speculatiton was allowed to be invested or to be utilised in purchase of abandoned units. The disinvestment of taken over units was accelerated and a total of 225 units were handed over to private 'entrepreneurs'. Later, the nationalized units in which there were any amount of share owned by Bangladeshi national were restored to them under an agreement. Additional fiscal and other incentives for export industries were accorded. To promote foreign investment an act was adopted to protect their interest. Thus, the semblance of public sector primacy was at least legally abandoned through reversal of policy during the Zia regime.

As a result of reversal to Pakistan day industrial policy regime, the DFI sanction to private sector was accelerated. The acceleration was done without proper scrutiny of existing capacity, entrepreneurial appraisal and appropriate economic and financial analysis. This has resulted in over capitalisation and over capacity creation in various sectors which has later caused rise in the number of defaulters and of sick industries. Fiscal concessions and easy finance have caused the growth of capital intensive import-dependent sectors in contradistinction to dessired labour intensive and local resource utilising industries. There was no policy or administrative effort to create inter-sectoral and inter-industry linkages and this was left to the market forces. The growth of small industry was also discriminated against as large investment provides access to large amount of free money for the 'entrepreneur'. The assumption that the concessional credit, public underwriting of equity and availability of guaranteed loan, and writing off of penal interest would lead to emergence of a hard core industrial entrepreneurs has been belied. There is no visible sign of the development of industrial investment culture.

The seminal study of Rehman and Ahmad Ahsan on performance of disinvested units has concluded that enterprises which were transferred from public to private control showed mixed trends in production and sales while financial performance was more negative than positive; that employment level has gone down in these enterprises, that they demonstrated poor capability to repay their loans as they failed to generate promised surplus and they paid less tax to the government. They concluded that there is insufficient evidence to support the policy of privatisation from the socially optimal efficiency point of view. The opinion of

Mr. Chisty, based on few jute mills, though expressed in contrary term, lends supports to the findings of Sobhan and Ahsan. A study by CIDA shows that after disinvestment net aggregate loss increased and employment dropped due to poor management practices.

Rehman Sobhan and Binayok Sen had undertaken a study of the emerging private sector entrepreneurs. They concluded that an entirely new class of "entrepreneurs" with no prior experience from the ranks of civil and military bureaucrats, indentors, professionals have emerged through their political linkage or parleyed access. They seem to be very ambitious in size, capital and technological intensity even though they have very little in the way of experience, cognate skill or even liquidity. These resourceless borrowers from DFIs because of their otherwise resourcefulness demonstrate high loan asset ratio and poor debt servicing as gain from over pricing and over-invoicing were their primary aim.

*More Changes in Industrial Policy*

The new industrial policy of 1982 and its further broadened version of 1986 are considered to be a watershed in promoting private sector investment in industries in Bangladesh. The primary objective of NIP '82 was to expand the dominance of the private sector in the manufacturing sector which was supposed to 'provide a new dimension and greater thrust to the industrialization of the country.' Incentives and concessions of greater magnitude were provided to the investors. This included protection against exchange rate fluctuation, nominal payment of duty on imported raw materials used by export industries, tariff protection for domestic industries against competition, low rate of interest on capital for industries in less developed areas and export industries, tax exemption on royalty and technical know-how fees for calculation of income tax liability, excise duty and income tax rebates for additional production etc. The disinvestment of public enterprise industrial units continued and such disinvestment of public enterprise could be in the form of sale for which only a minimal down payment was needed and this fund could be borrowed from DFI/NCB or divestiture could be through public sale of shares. To promote foreign investment liberal payment of royalties, technical know-how fee and for technical assistance etc. were provided, in addition development of special industrial zones were undertaken. The registration, approval process as well as licensing procedures were simplified.

An evaluation of the impact of NIP '82 and RIP' 86 shows that there has been substantial increase in the sanction of investment for private sector whose share in total investment in that sector has increased overtime due

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to restriction placed on public sector. But actual investment by private sector, even overlooking the over-pricing of assets, is far below the sanctioned amount. The increase in actual investment in private sector in nominal terms has not been substantial and in real terms infact it has gone down in recent years.

In terms of production there has been a vital stagnation and in certain years there were decline in production despite generous incentive policy persued by the government. As the production level of the remaining units with public sector corporations have been within expected range, the decline or the stagnation in production has been largely due to the failure of the private sector. An analysis of managerial and technical efficiency comparing private and public sector units showed no statistically significant differences for the years 1978-88.

Recent studies by Professor Sahota of HIID has concluded that private investment has been sluggish and it peaked before NIP '82 and RIP '86. This liberal privatisation and private sector promotion policy seem to have been ineffective. The realised investment has been less than one fifth of the target. Professor Sahota further concluded that there is no evidence of any increase in productivity growth in the private sector based on 'cleaned up' CMI data and survey data of his own. He also found that foreign private investment is still a dribble and net inflow in certain years negative. As a consequence of policy, overall real investment in public sector declined which was not compensated by an increase in private sector investment. Rate of growth of industrial production is much lower in the 80s when private sector became dominant than in the 70s when public sector was dominant. Professor Sahota also found that higher effective rate of assistance has negative impact on investment, production efficiency and total factor productivity.

From these, one is tempted to concluded that despite 'successful' privatisation as lauded by the World Bank and Professor Vernon, the industrial policy of current regime has failed to promote rapid industrialisation as evidenced by the static share of manufacturing sector in the GDP. Nationalization was called a disaster but privatisation has been a greater disaster.

### **WHY THE PRIVATISATION POLICY SEEM TO HAVE RUN AGROUND?**

Dr. Elliot Berg called Bangladesh "a champion performer in the world of privatisation or divestiture" based on the numerical information that 609 industrial units, 2 banks, 465 commercial enterprises, besides 300-400

small commercial trading firms have been unloaded by the government. He however had no time or data to look into the performance of these divested units or even those of newly set up private sector enterprises. Dr. Clare E. Hunplerey writing a report for USAID in August 1988 concluded that "given the shortcomings, it is remarkable that privatisation in Bangladesh has proceeded as far as it has and accomplished as much as it has". If the purpose is to unload with a view to shrink the government, there may be reasons to be elated, but if the purpose is to achieve better economic performance than what it was before under public enterprise, the evidence is at best non-conclusive and their record of production, productivity, employment, labour efficiency, repayment of loan, payment of dues to the government are anything to be complacent about.

*Is their Incentive for the Private Sector to Perform?*

Bangladesh is a country of small traders, small savers, small investors and small production establishment close to home which minimises external contact, risk as well as alienation. Because of this in East Pakistan, industrial scene was dominated by non-Bengali elements. Mr. Clare Humphrey found strong presence of non-Bengali element and "it becomes stronger the deeper you dig under the surface". Thus privatisation and promotion of private sector investment opportunity have benefited this group who have kept a Bangladeshi front man. Public Sector dominance had put a brake on non-Bengali presence and rise of their collaborators. This has now been reserved by the military bureaucratic regime. But the non-Bengali today is not the same as non-Bengali before 1971. Today he perceives the political risk more strongly than he did before 1971. Prior to 1971, he would be satisfied with a 25% ROI and 10-15 years payback period and may have used the facility of 10% overpricing of own and imported assets.

Today, the most profitable operation is smuggling of goods in and out of the country. The return on capital involved, taking the risk of detection and payment to rent seeking controllers into consideration, is considered to be very high (above 1000% according to some estimates). The returns from legal trade, though manipulation, mark-up, monopoly control or policy aberration is said to be above 500%. Thus an investor seeks a minimum of 200-300% ROI and a payback period of 3-5 years; for new investment this is assured through 300-1000% over pricing of imported machinery as has been found by the consultants to BSB and BSRS; for disinvested units this is ensured through under valuation of networth so that through sale of land, office building, accumulated inventory the purchaser makes

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immediate money. In both cases, they have no risk in closure or take over or under utilisation of capacity. They make money through sale of import entitlements or imported raw materials. Given this general condition, the opinion of the private sector entrepreneurs should be considered, because, they are, aggressive' slickers out to make a fast buck in any way possible as noted in Clare Humphreys report to USAID. For this he blames collusion between buyers, bureaucrats and powers that be, absence of "ethical and professional standards" set up by Chambers for their members; and dominance of "unofficial economy" which involves more than 50% of the economic life of Bangladesh.

*Where does the Private Sector lay the blame for their non-performance?*

The private sector is greatly pleased with the thrust of industrial policy under the current regime. This has allowed the emergence of a dozen and a half powerful business houses and possibly another two hundred or so less powerful but visible business houses who virtually control finance, trade and the economy. They are generally satisfied with the incentive package, liberalisation of regulatory measures but express concern with bureaucratic bottlenecks which have grown up in an environment of easy money making game under generous aid regime. Thus pockets of bureaucratic empires are known to have grown up promoting open corruption.

Privatised companies have expressed concern not only about growing bureaucratic lethargy, inertia and inefficiency but also of burgeoning official corruption at all levels. This certainly increases their cost on the one hand and their capacity to manipulate decisions on the other.

The private sector 'entrepreneurs' seem to have come to terms with bribery and kickbacks. It was concluded by Professor Sahota as 55% of private sector entrepreneurs no longer views this as a serious problem but only 4% are willing to ignore it. They however, blame poor performance on low quality of local raw materials, non-availability of adequate foreign exchange to meet import schedule, lack of adequate working capital finance from the financial institutions, erratic power supply, lack of demand for final products, overcrowding of enterprises relative to market size, non-availability of skilled manpower etc. These were the same factors which caused unsatisfactory performance in public sector earlier and this level of poor performance was the *raison d'être* for privatisation. It is an irony of fate that supposedly efficient private sector has not been able to overcome the difficulties but demonstrate similar managerial and technical inefficiency.

AN ENQUIRY INTO THE IDEAL PRIVATISATION PROCESS AND WHAT WAS FOLLOWED IN BANGLADESH

Privatisation process involves many activities and steps. First issue relates to whether to privatise; second to how to privatise, third to how much to privatise and fourth to conditions of privatisation. Assuming that privatisation has been accepted as a policy measure, these questions relate to individual units and enterprises. Each unit has to be seen in the context of benefits from non-privatisation and their costs.

Thus the first step is to conduct a proper feasibility study with respect to privatisation. Such evaluation requires development of appropriate criteria involving a range of political, legal, social-economic, operational, human resource, finance, business and such other criteria. Such privatisation evaluation should be forthright, consistent and generally uniform. The analysis should be conducted by a group in whose integrity and expertise potential buyers and the public must have confidence.

The second step is to indicate priority ranking of the selected units for privatisation on the basis of both macro and micro analysis. In doing so a formal targeted multi-disciplinary analysis using known, visible and appropriate guidelines and accepted methodologies should be employed otherwise it would be difficult to determine and demonstrate whether privatisation is justified and will work. In the first and second step detailed analysis of economic, financial, managerial and human aspects are a must as well as full and accurate statement of analysis, findings and recommendations should be made. There are various ways of privatisation. The most common is divestiture where ownership and management is wholly transferred through a sales agreement, the terms and conditions of which is mutually agreed upon. The second is privatisation of a part of the capital structure through sale of shares in the capital market. The third is privatisation of management where ownership is retained by the government but management is transferred to a private party under a contract. The fourth is privatisation of a part or whole of the total production process e.g. introduction of production contract while retaining procurement and marketing function or vice versa. The fifth is privatisation in the sense that through a profit sharing process the units ownership is partly or wholly transferred to the employees. The sixth is outright liquidation. The seventh is "commercialisation" of the public enterprise where management is vested in professional public sector managers like private enterprise under comparable systems of control and

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incentive and reward structure which precludes arbitrary bureaucratic intervention. This is in a sense a variant of privatisation of management.

The decision regarding privatisation process should be done with due consideration of these alternative methods and their impact on income and wealth distribution, employment, technical efficiency and technology development, improvement of financial health and generation of surplus, consumer interest, production and productivity, sustainability of the policy at political level. It is generally held that system of ownership, as put forward by Robert Millward, has little bearing on profitability or that private sector is more efficient than public sector. It is the culture or management and entrepreneurship as well as labour management relation that matters. Such consideration would also answer the questions related to how much to privatise and conditions of privatisation.

For example, in order to evolve a policy with respect to employees it is necessary to examine the total profile of employees and probable impact scenarios in order to include conditionalities and identify by obligations to reduce negative impacts. It may involve individual counselling of employees by senior management. The privatisation transaction would require ready availability of all relevant operational resources and other background data and the reason for preferred option. In case of sale or management contract it may be necessary to sensitise the interested parties through open meetings which may involve complex solicitation. The proforma for bid-offers need be "scientifically" prepared and timely and impartial review of all proposals need be ensured so that the integrity of final decision is beyond question. This could involve open and public scrutiny of offers and multi-party negotiation in succession so that conditionalities in protecting the reasonable interest of public and employees could be ensured and conditions of payment of price, taxes, insurance etc. are appropriately protected. Finally, a competent machinery with power commensurate with responsibility for taking action against non-performance and violation of terms of contract can be taken.

The case studies undertaken by the author of the privatisation in pre-75, pre-82 and under NIP 82, RIP 86 show that the divestiture, complete or partial, has not been competent, impartial or protective of the interest of public or consumer or employees. This is evident from the survey of the richest people of Dhaka city by Dr. Kamal Siddiqui et al. They report that the richest own on average 2.67 industrial/manufacturing and 2.32 non-industrial/non-manufacturing enterprises of which at least "one-fourth were

acquired at throw away prices through government donationalisation policy." Besides "theft, embezzlement, forcible occupation" of divestable units and "defrauding and permanently defaulting" loans from NCBs and DFIs. were rawpart

#### WHERE DOES THE REMEDY LIE ?

It can be assumed that because of donor dialectics, entrenchment of military bureaucratic regime, diffused thinking and conflict within political parties, privatisation done so far would stay and possibly would continue at a slower pace as the number of units to be divested have become fewer. The initial remedy lies in firming up the privatisation procedure and impartial evaluation of all options. As Raymond Vernon points out that even in the US it is difficult to distinguish between private and public enterprise, almost all enterprises represent a partnership either in equity, internal management, management of external forces, procurement of input or sales of output. It is the nature of the partnership which bestows benefit on some and inflicts costs on other. Thus it befalls on the government to define the nature of partnership so as to reduce social cost and/or optimise social benefit. This is basically a question of increasing total efficiency, not of plunder or political patronage.

The improvement in efficiency, both for public and private enterprises, is possible with the growth of efficiency oriented management culture which requires appropriate responsibility-authority, autonomy-accountability configuration in an atmosphere which promotes equitable and non-discriminatory treatment in terms of regulation or incentives. This involves further raising employee moral through appropriate reward-punishment system and training retraining system which increase their motivation for self-actualisation and opens up their options for performance. These efforts need be backed up by an awareness about technology for absorption and innovation so that obsolescence could be avoided. The problem of performance in public and private sector is no different except for bureaucratic intervention in the case of the former and non-accountability to the society at large in the case of the latter.

#### CONCLUDING REMARKS

We started with a statement of the testable hypotheses. The evidence from the secondary source seem to suggest that the policy of privatisation was not based on greater net benefit from private operation nor of higher net real cost of public enterprises. This was caused by politico-economic consideration of a non-legitimate and dependent military-bureaucratic

regime which was interested to maximise aid flow by appeasing the donors without consideration of entrepreneurial or managerial feasibility. Thus the privatisation policy has caused stagnation in the industries sector despite many concessions and simplification of procedures. The remedy lies in promoting development of human resources so that an entrepreneurial, managerial, technological culture which values efficiency and welfare can gain root in the soil of Bangladesh.

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## চোরাচালানঃ কয়েকটি সমষ্টিগত অর্থনৈতিক দিক

আবদুল গফুর\*

### ভূমিকাঃ

অবৈধ আন্তর্জাতিক বাণিজ্য অথবা চোরাচালান সাম্প্রতিক কালের সর্বাধিক আলোচিত বিষয়। চোরাচালানকে চিহ্নিত করা হয়েছে বাংলাদেশের অর্থনীতির সূষ্ঠ ব্যবস্থাপনার একটি প্রধান প্রতিবন্ধক হিসেবে। বাংলাদেশের বাজারে চোরাচালানকৃত বিপুল পণ্যের উপস্থিতি টের পাবার জন্য সাধারণ পর্যবেক্ষণই যথেষ্ট। শিল্পপতিরা অভিযোগ করছে যে, শিল্পজাত দ্রব্যের অন্তর্মুখী চোরাচালান (smuggling-in) দেশী শিল্পজাত পণ্যের চাহিদা কমাচ্ছে এবং এভাবে শিল্পোন্নয়ন প্রক্রিয়াকে বাধাগ্রস্ত করছে। সরকারের সতর্কণ নীতির আওতাভুক্ত শিল্পসমূহ মুখোমুখি হচ্ছে চোরাচালানকৃত পণ্যের যা বাজারজাত হচ্ছে খুবই কম দামে অর্থাৎ বৈধ পথে আমদানী করা হলে যে দামে বিক্রি হত তার চেয়ে অনেক কম দামে। সরকার বঞ্চিত হচ্ছে কর বাবদ বিপুল আয় হতে যা অবৈধ আমদানিকারকরা ফাঁকি দিচ্ছে। চোরাচালান সহজতর করছে বাংলাদেশ হতে পুঁজি পাচার। অন্যদিকে একথা মনে করারও কোন যুক্তিসম্মত কারণ নেই যে, সকল বাণিজ্য বিষয়ক নিষেধাজ্ঞা ও করের হারের যৌক্তিক ভিত্তি আছে। বাংলাদেশের ও বহির্বিদেশের উৎপাদন ও মূল্য কাঠামোর পরিবর্তিত পরিস্থিতিতে উপরোক্ত অনেক বিধি নিষেধ ও হারই হয়ত শুধুমাত্র তাদের উপযোগিতা হারিয়ে ফেলিনি বরং তা জাতীয় কল্যাণ হ্রাসের কারণ হয়ে দাঁড়িয়েছে। অধিকন্তু যথাযথভাবে আরোপ করা যায় না এমন বাণিজ্য বিষয়ক নিষেধাজ্ঞা ও উঁচু কর হার শুধুমাত্র চোরাচালানী ও তাদের সহযোগীদের বিস্তারিত করে; দেশজ উৎপাদনকারী ও ভোক্তারা (consumers) এতে ক্ষতিগ্রস্ত অথবা সামান্যই লাভবান হয়। এ সব কারণেই বাংলাদেশের প্রেক্ষিতে চোরাচালানের প্রকৃতি ও তার অর্থনৈতিক ফলাফলের বিশ্লেষণ প্রয়োজন।

### চোরাচালান কি ও কেন?

অবৈধ পথে (channel) আমদানী ও রপ্তানী করা অথবা বৈধ পথে বহির্বাণিজ্য করা কিন্তু কর ফাঁকি দেওয়া ও নিয়ম লঙ্ঘন করাকেই সাধারণভাবে অবৈধ আন্তর্জাতিক বাণিজ্য অথবা চোরাচালান বলে। বে-আইনীভাবে ভৌত ও আর্থিক সম্পদের সকল লেনদেন (transaction) এই সংজ্ঞার অন্তর্ভুক্ত। চোরাচালানীর বৈধ পথ, যথা বিমানবন্দর, সমুদ্রবন্দর ও স্থলভাগের শুদ্ধপথ এবং বেআইনী পথ, যথা স্থল সীমান্ত, সমুদ্রতীর ইত্যাদি উভয়ই ব্যবহার করে থাকে। চোরাচালান বিকাশলাভ করে এমন পরিবেশে যেখানে আইন

\* বাংলাদেশ উন্নয়ন গবেষণা প্রতিষ্ঠান

### গফুরঃ চোরাচালান

প্রয়োগ কার্যকর নয়, সীমান্ত পাহারার ব্যবস্থা করা কঠিন এবং সর্বোপরি অন্যান্য আইনসম্মত ক্রিয়াকলাপের তুলনায় চোরাচালান বেশী লাভজনক। চোরাচালানজনিত মুনাফার উৎসসমূহ, অন্যান্যের মধ্যে, (১) শুদ্ধ বিভাগের কর্মচারীদের অথবা সীমান্ত রক্ষীদের উৎকোচদানের মাধ্যমে আংশিকভাবে অথবা পুরোপুরি বহির্বাগিষ্ঠ্য শুদ্ধ ফাঁকি দেয়া; (২) কোন পণ্যের আমদানী ও রপ্তানীর উপর আরোপিত কোটা ও নিষেধাজ্ঞা লংঘন করা; (৩) দেশের বাইরে পুজি স্থানান্তর; (৪) কালোবাজারে বৈদেশিক মুদ্রা কেনাবেচা করা; ইত্যাদি।

বৈধপথে চোরাচালান প্রধানত নিম্নলিখিত রূপ নেয়ঃ (১) আমদানী ও রপ্তানী ক্যাটেগরী, ওজন, গ্রেড ও ডিক্লারেশনের ক্ষেত্রে কারচুপি; (২) জাল ইনভয়েস; (৩) আভার ও ওভার ইনভয়েসিং ও (৪) অননুমোদিত রেমিট্যান্স। বৈধপথে আমদানী অথবা রপ্তানীর চোরাচালান অনেক সময় শুদ্ধ কর্তৃপক্ষের অগোচরে হয়; কিন্তু বেশীরভাগ ক্ষেত্রেই শুদ্ধ ও অন্যান্য আইন প্রয়োগকারী সংস্থার কর্মচারীদের উৎকোচ প্রদানের মাধ্যমেই চোরাচালান হয়ে থাকে।

অবৈধপথে চোরাচালানের পন্থা হচ্ছেঃ (১) অবৈধ সীমান্ত বাগিষ্ঠ্য; (২) হুডি' এবং এ ধরনের বন্দোবস্তের মাধ্যমে বৈদেশিক মুদ্রা কেনাবেচা ও লেনদেন; (৩) সোনা ও বৈদেশিক মুদ্রা অননুমোদিতভাবে বিদেশে পাঠানো। অবৈধ পথে চোরাচালান (১) আইন প্রয়োগকারী সংস্থার যোগসাজসে হয়ে থাকে; অথবা (২) পণ্য বাজিয়াপ্ত ও জেলে যাবার ঝুঁকি নিয়েও করা হয়। প্রথম ব্যবস্থায় চোরাচালানের লাভের অংশ অবশ্যই আইন প্রয়োগকারী সংস্থার সদস্যদের মধ্যে বন্টিত হয়।

প্রত্যক্ষ অবৈধ রেমিট্যান্স ছাড়াও নগদ অর্থ, সোনা, ও অন্যান্য মূল্যবান ধাতু ও পাথর পাচার, পণ্যের বহির্মুখী চোরাচালান, আভার ও ওভার ইনভয়েসিং এর মাধ্যমেও পুজি পাচার হয়ে থাকে। পুজি বিদেশে পাচারের প্রধান কারণ হচ্ছে বাংলাদেশ ও গন্তব্য (destination) দেশের তুলনামূলক ঝুঁকি সমন্বিত নীট লাভের হারের পার্থক্য। উঁচু করের হার, আমলাতান্ত্রিক বিধিনিষেদ; বৈদেশিক মুদ্রা নিয়ন্ত্রণ; অনুমিত অবমূল্যায়ন; রাজনৈতিক অস্থিতিশীলতা; বৈদেশিক ব্যাংকসমূহে নিষ্কর (tax free) এ্যাকাউন্ট খোলার সুবিধা উঁচু মুদ্রাস্ফীতির হার; অসন্তোষজনক বিনিয়োগ পরিবেশ ইত্যাদি পুজি পাচারের প্রধান কারণ। বাংলাদেশে বিদেশী পুজিকে যে ধরনের কর, আমদানী রপ্তানী ও রেমিট্যান্স সুবিধা দেয়া হয় দেশী পুজিকে ততটা দেয়া হয় না। ফলে দেশী পুজি পাচার হচ্ছে এবং বিদেশে অবস্থানরত বাংলাদেশী শ্রমিকদের সম্ভাব্য রেমিট্যান্স বাংলাদেশে পাঠানোর বদলে বিদেশে স্থানান্তরিত হচ্ছে।

### চোরাচালানের রূপরেখাঃ

ভারতসহ আরও কয়েকটি দেশের সাথে প্রধানত চোরাচালান হয়ে থাকে। ভারত সীমান্ত অতিক্রম করা সহজ। পাসপোর্ট, ভিসা ও ট্রাভেল ট্যাক্সের ঝামেলা ও খরচ অনেক। এ সব কারণে অনেকে অবৈধভাবে ভারতে যাতায়াত ও সাথে সাথে কিছু সহজে বহনযোগ্য পণ্য অবৈধভাবে আনা নেয়া করে বাগিষ্ঠ্যিক পর্যায়ে সংগঠিত চোরাচালানে পণ্য বহন করে কুলিরা, সাইকেল, গরুর গাড়ি, দেশী নৌকা অথবা / ইঞ্জিন বোট, এবং সম্ভাব্য ক্ষেত্রে ট্রাক। সীমান্ত

অতিক্রম করার পরে দ্রুতগামী পরিবহনে মাল বড় বিক্রয় কেন্দ্রে স্থানান্তরিত হয় সহজেই। ভারত ছাড়া মধ্যপ্রাচ্যের দেশসমূহ, সিঙ্গাপুর, থাইল্যান্ড ও বার্মার সাথে ব্যাপক চোরাচালান হয়ে থাকে। মাছ ধরার উলার, সমুদ্রগামী নৌকা ও জাহাজ ব্যবহার করে সিঙ্গাপুর, থাইল্যান্ড ও বার্মা থেকে মাল পরিবহন করা হয়। মধ্যপ্রাচ্য, সিঙ্গাপুর, থাইল্যান্ড থেকে আকাশপথেও চোরাচালান পণ্য পরিবহণ করা হয়। চট্টগ্রাম ও চালনা সমুদ্রবন্দর ও ঢাকা বিমান বন্দরের মাধ্যমে বিভিন্ন বন্দোবস্তে পণ্য চোরাচালান হয়ে থাকে।

কিভাবে সংগঠিত? :

চোরাচালান হয়ে থাকে সংগঠিত গোপন দলের দ্বারা। দলনেতারা সাধারণতঃ বড় ব্যবসায়ী ও রাজনৈতিকভাবে প্রতিপত্তিশালী ব্যক্তিগণ। এ দলগুলো নানা স্তরে বিভক্ত এবং ঢাকা-চট্টগ্রাম-খুলনা থেকে সীমান্ত এলাকা পর্যন্ত বিস্তৃত। সাধারণভাবে এরা একশ্রেণীর সীমান্তরক্ষী পুলিশ এবং শুদ্ধ কর্মকর্তাদের যোগসাজসে কাজ করে, এবং প্রায় সবগুলো দলই আশ্রয়স্বস্তি সজ্জিত। পরিবহন শ্রমিকরা ভালো মজুরী পায়, কিন্তু আইন প্রয়োগকারী সংস্থার সদস্যদের কাছে ফাঁস করার মত কোন তথ্য এদের জানা থাকে না। এরাই ধরা পরে এবং সাজা খাটে।

লেনদেনের মাধ্যম :

চোরাচালানের পণ্যের দাম শোধ করা হয়ে থাকে নগদ টাকায়, হাতিতে, সরাসরি বিনিময়ে (barter) ইত্যাদিতে। সবচেয়ে বেশী ব্যবহৃত হয় নগদ টাকা। ভারতের সাথে দাম পরিশোধে ব্যবহৃত হয় প্রধানত বাংলাদেশী টাকা ও ভারতীয় রুপী, যদিও ডলার ও পাউন্ডও কখনও ব্যবহার করা হয়। অন্যান্য দেশের ক্ষেত্রে হার্ড কারেন্সী ব্যবহার করা হয়। খুবই সীমিত হলেও সোনাও কখনও বিনিময়ের মাধ্যম হয়ে থাকে। যদিও অবৈধ লেনদেনের অর্থের উৎস কখনো বৈধ বাণিজ্যিক পুঁজি, কিন্তু এর মোটা অংশ আসে চোরাচালানের মুনাফা থেকেই। অস্থানীয় পুঁজিও এসব লেনদেনের সাথে জড়িত।

পণ্যের সংক্ষিপ্ত বিবরণ?

ভারত ছাড়া অন্যান্য দেশ থেকে অন্তর্মুখী চোরাচালানকৃত পণ্যের মধ্যে প্রধান হচ্ছে সিগারেট, ইলেকট্রনিক দ্রব্য, মদ, সোনা, মাদকদ্রব্য ও বিবিধ শিল্পজাত পণ্য। অবশ্য এসব পণ্যের একটা বড় অংশ শেষ পর্যন্ত ভারতে চলে যায়। ভারতীয় ক্রেতারা বিদেশী ব্রান্ডের ইলেকট্রনিক দ্রব্য, সিগারেট, মদ ইত্যাদির জন্য বেশী দাম দিতে ইচ্ছুক বলেই এ সব পণ্যের ভারতে বহিমুখী চোরাচালান খুবই লাভজনক। এছাড়াও বাংলাদেশে সংযোজিত বিদেশী ব্রান্ডের ইলেকট্রনিক দ্রব্য, দেশে প্রস্তুত বিদেশী ব্রান্ডের সিগারেট, মাছ ভোজ্য তেল, রাসায়নিক সার, কীটনাশক, গুড়ো দুধ, সোনা, পাট, আমদানীকৃত সিমেণ্ট, পেট্রোল ইত্যাদি বিপুল পরিমাণে ভারতে চোরাচালান হয়ে থাকে। অন্যদিকে, ভারত থেকে প্রচুর পরিমাণে বাংলাদেশে আসে গবাদি পশু, চিনি, সূতী শাড়ী, যন্ত্রপাতি ও খুচরা যন্ত্রাংশ, প্রসাধনী দ্রব্যাদি, ঔষধ, ফলমূল, চাল মশলা, ভোজ্য তেল, ইত্যাদি। ভারতে বহিমুখী চোরাচালানকৃত পণ্যকে মোটা দাগে দু'ভাগে ভাগ করা যায়। আমদানীকৃত পণ্য যার সাথে সামান্য কিছু আত্যন্তরীণ Value added

### গফুরঃ চোরাচালান

যুক্ত এবং যে সব পণ্যের মূল্যে আমদানীর অংশ কম। চোরাচালানকৃত পণ্যের সীমান্তমূল্য পরীক্ষা করে দেখা যায় যে চোরাচালান খুবই লাভজনক।

#### প্রশাসনিক ব্যবস্থার সীমাবদ্ধতাঃ

চোরাচালান প্রতিরোধে প্রশাসনিক ব্যবস্থার ভূমিকা গুরুত্বপূর্ণ, কিন্তু প্রশাসনিক ব্যবস্থার সাথে সাথে চোরাচালান হতে লাভের পরিমাণ কমানোর অর্থনৈতিক নীতি গ্রহণ ও তা বাস্তবায়নের উদ্যোগকে যুক্ত করা হলে তা আরও সফল হয়। মুনাফার হার বেশী হলে, চোরাচালানীরা সহজেই আইন প্রয়োগকারী সংস্থাসমূহের সদস্যদের ঘুষ দিতে পারে অথবা অন্যান্য ব্যবস্থা গ্রহণ করতে পারে। বিশেষ দশকে মার্কিন যুক্তরাষ্ট্রে মদ প্রস্তুত ও বিক্রয় নিষিদ্ধ ছিল। ফল হয়েছিল এই যে মদের অবৈধ প্রস্তুতকারক ও কারবারীরা সাফল্যের সাথে আইন প্রয়োগকারী সংস্থার সদস্য, আমলা, রাজনীতিবিদ, এমনকি বিচারপতিদেরও দূর্নীতিগ্রস্ত করে তুলেছিল। এমনকি এদের সশস্ত্রবাহিনীর হাতে নিহত হয়েছে অনেকে। অবস্থা আয়ত্বে আনার জন্য এ নিষেধাজ্ঞা তুলে নেওয়া এবং একই সাথে মদের উপর উঁচু হারে করারোপ করা হয়েছিল। মাদক দ্রব্যের (hard drugs) ক্ষেত্রেও অভিজ্ঞতা একই ধরনের। মার্কিন যুক্তরাষ্ট্রে সবচেয়ে সুসজ্জিত ও দক্ষ প্রশাসন কর্মীরা মাদক দ্রব্য প্রতিরোধে নিয়োজিত থাকা সত্ত্বেও, মার্কিন যুক্তরাষ্ট্রে মাদক দ্রব্যের ব্যবসা কমেনি। যে সব দেশে মাদক দ্রব্যের ব্যবসাতে নিয়োজিতদের মৃত্যুদণ্ড দেওয়া হয় এমনকি সেখানকার চিত্রও ভিন্নতর নয়। চোরাচালান প্রতিরোধে প্রশাসনিক ব্যবস্থাকে খাটো করে দেখার অবকাশ নেই। অন্যদিকে একথাও সত্যি যে, আশু ভবিষ্যতে চোরাচালান প্রতিরোধে প্রশাসনিক দক্ষতা বাড়ার সম্ভাবনাও সামান্যই। এ জন্যই চোরাচালান বিরোধী নীতি প্রণয়নে স্পষ্ট ধারণা থাকা প্রয়োজন যে চোরাচালান কিভাবে আমাদের অর্থনৈতিক বিকল্প প্রতিক্রিয়া সৃষ্টি করছে এবং কি ধরনের কর, বাণিজ্য ও মূল্যনীতি চোরাচালানের ক্ষতিকর প্রভাব হ্রাসে সহায়ক হতে পারে, এমনকি চোরাচালানকে আমাদের অর্থনীতির জন্য লাভজনক করে তুলতে পারে।

#### চোরাচালানঃ সম্ভাব্য বিরূপ প্রতিক্রিয়া শুরুঃ

১। চোরাচালান শুষ্ক ও অন্যান্য কর থেকে রাজস্ব কমায়ে এবং ফলে কম উৎপাদনশীল (Less productive) কর থেকে অধিক রাজস্ব সংগ্রহে সরকারকে বাধ্য করে। এতে সরকারের পরিসেবা ও বিনিয়োগের ব্যয় বৃদ্ধি পায়। এটি অবশ্য সত্যি যে, সরকারের রাজস্ব আয় হ্রাসের পরিমাণ এবং চোরাচালানী, আইন প্রয়োগকারী সংস্থার সদস্য ও ভোক্তাদের লাভের যোগফল প্রায় সমান। সুতরাং টাকার হিসেবে সমষ্টিগতভাবে চোরাচালানের ফলে দেশের নীট ক্ষতির পরিমাণ প্রায় শূন্য। এ যুক্তি দু'টি ক্ষেত্রে প্রযোজ্য নয়। প্রথমতঃ চোরাচালান সরকারের শিল্প সংরক্ষণ নীতির প্রতিকূলে কাজ করে। Infant industry, externality ইত্যাদি কারণে শিল্প সংরক্ষণের যৌক্তিকতা ব্যাপকভাবে স্বীকৃত। দ্বিতীয়তঃ, অনুন্নত দেশে ব্যক্তিখাতের তুলনায় সরকারী খাতে ব্যয়ের সামাজিক (অর্থনৈতিক) মূল্য বেশী। এটা বিশেষভাবে সে সব দেশের ক্ষেত্রে প্রযোজ্য যেখানে সঞ্চয়ের হার optimal level এর তুলনায় কম এবং ভৌত ও সামাজিক অবকাঠামো অনুন্নত।

২) এর ফলে সরকারের শিল্প, বিশেষভাবে আমদানী বিকল্প শিল্প, সংরক্ষণনীতি ব্যাহত হয়। তবে চোরাচালানের ফলে সামগ্রিকভাবে জাতীয় কল্যাণ হাসপ্রাপ্ত হয় কিনা তা নির্ভর করে সংরক্ষণের অর্থনৈতিক যৌক্তিকতার (justification) উপর। প্রসঙ্গতঃ এটিও মনে রাখা দরকার যে, শুদ্ধ অথবা কোটা দ্বারা সংরক্ষণের তুলনায় কর-ভর্তুকীর মাধ্যমে শিল্প সংরক্ষণ অধিকতর দক্ষ ও কল্যাণকর।

৩) চোরাচালানের ফলে আন্তর্জাতিক বাণিজ্য শর্তের অবনতি হতে পারে। উদাহরণ হিসাবে, একটি পণ্য আমদানীর C.I.F. মূল্য হচ্ছে ৩৫ টাকা। শতকরা ১০০ ভাগ আমদানী শুদ্ধ দেবার পর আমদানীর ব্যয় দাড়াচ্ছে ৭০ টাকা। আমদানী শুদ্ধ এড়ানোর জন্য একজন চোরাচালানী এ পণ্যটি প্রতিবেশী দেশ থেকে চোরাচালান করতে পারে। প্রতিবেশী দেশে, ধরা যাক, এ পণ্যের মূল্য ৪৫ টাকা এবং সীমান্তরক্ষীদের উৎকোচের পরিমাণ ১৫ টাকা। ফলে চোরাচালানীর আমদানী ব্যয় পড়ছে ৬০ টাকা। এ ক্ষেত্রে ব্যবসায়ীক দৃষ্টিকোণ থেকে বৈধ আমদানীর তুলনায় চোরাচালান লাভজনক কিন্তু জাতীয় দৃষ্টিকোণ থেকে তার বিপরীত; প্রতিটি পণ্য চোরাচালানের মাধ্যমে আমদানীর ফলে জাতীয় অর্থনীতি ১০ টাকা পরিমাণ ক্ষতিগ্রস্ত হচ্ছে।

৪) বাংলাদেশের অভ্যন্তরীণ অথবা জাতীয় সঞ্চয়ের হার কম। অর্থনৈতিক প্রবৃদ্ধির হার বৃদ্ধির জন্য বাংলাদেশ প্রধানতঃ বৈদেশিক সাহায্যের আকারে পুঁজি আমদানী করে থাকে। অবৈধ পুঁজি রপ্তানী তাই অনভিপ্রেত। অবৈধ পুঁজি রপ্তানী বাংলাদেশের balance of payments ও সরকারী রাজস্বের উপর বিরূপ ছাপ রাখে। অবৈধ পুঁজি রপ্তানী হয়। প্রধানতঃ আমদানী overinvoicing; রপ্তানী underinvoicing; সোনা, নগদ অর্থ, অন্যান্য আর্থিক সম্পদ ও পণ্য চোরাচালানের মাধ্যমে; 'হাভি' এবং এ ধরনের অদৃশ্য লেনদেনের মাধ্যমে।

৫) চোরাচালানের ফলে আয় পুনর্বন্টন হয় সরকার ও বৈধ আমদানীকারকদের কাছ থেকে চোরাচালানী, আইন প্রয়োগকারী সংস্থার সদস্য এবং কিছুটা পরিমাণে ভোক্তাদের কাছে। চোরাচালান হচ্ছে 'কালো টাকার' প্রধানতম উৎস। কালো টাকা ব্যবহৃত হয় রাজনৈতিক প্রভাব কেনার জন্য এবং তা প্রবাহিত হয় এমন সব কার্যকলাপে যা কর বিভাগের কর্মকর্তাদের কাছ থেকে সহজেই গোপন করা যায় কিন্তু কম উৎপাদনশীল। এ টাকা চোরাচালান ও অন্যান্য অবৈধ কার্যকলাপে অর্থ যোগান দেয়। এ ছাড়াও, আইন প্রয়োগকারী সংস্থার একাংশের দুর্নীতি ও লোক দেখানো বিলাসী জীবন অন্যদের দুর্নীতিতে প্রলুব্ধ করে।

**চোরাচালানঃ সম্ভাব্য লাভজনক প্রতিক্রিয়াঃ**

অবৈধ বাণিজ্যকে অবিমিশ্র খলনায়ক হিসেবে চিত্রিত করার কোন অর্থনৈতিক যৌক্তিকতাও নেই। যদি কর, বাণিজ্য ও মূল্যনীতি (পণ্য, বৈদেশিক মুদ্রা ও সুদের হার) সঠিক হয়, তাহলে চোরাচালানের বিরূপ প্রভাবকে যে দূর করা যায় তাই নয় চোরাচালান দেশের উন্নয়নে ও জনকল্যাণে অবদান রাখতে পারে।

### গফুরঃ চোরাচালান

১) চোরাচালান মূলতঃ বৈদেশিক বাণিজ্য অর্থনীতির একটি মূল সূত্র হচ্ছে, নিয়ন্ত্রণের কোন বিশেষ কারণ না থাকলে, অবাধ বাণিজ্য সামগ্রিকভাবে কল্যাণকর। অবাধ বাণিজ্যের ফলে উৎপাদন অধিকতর specialized হয়, রপ্তানী আমদানী দুই-ই বাড়ে। বাজারে অধিক পরিমাণ বিদেশী পণ্যের উপস্থিতি অর্থনৈতিক দুর্বলতা নয় বরং শক্তিরই প্রতীক। যে দেশ যত বেশী রপ্তানীতে সফল, সে দেশ তত বেশী বিদেশী পণ্যের 'বাজারে' পরিণত হয়।

চোরাচালান একটি আইনগত concept আন্তর্জাতিক বাণিজ্য বিষয়ক সব বিধি নিষেধই যে যুক্তিযুক্ত তা নয়। বরং বাংলাদেশের ক্ষেত্রে তার বিপরীতটিই সত্য। অন্যদিকে চোরাচালানকে এদেশে শুধুমাত্র আইনের লংঘন বলেই বিবেচনা করা হয় না, বরং একে একটি অনৈতিক কাজ বলে গণ্য করা হয়। অর্থনৈতিক যৌক্তিকতা ও আইনের বিরোধটি নীচের উদাহরণ থেকে স্পষ্ট হবে। ধরা যাক একটি দেশ পেটোলিয়াম সমৃদ্ধি, কিন্তু খাদ্যে ঘাটতি। দেশটিতে আমদানী-রপ্তানী নিষিদ্ধ। একজন চোরাচালানী (?) অবৈধভাবে কিছু পেটোল রপ্তানী করে খাদ্য আমদানী করলে সে অবশ্যই আইন ভঙ্গ করছে, কিন্তু দেশের অর্থনীতিতে তার অবদান কল্যাণকর।

২) ধরা যাক একটি দেশ অবাধ বাণিজ্য নীতি অনুসরণ করে। প্রতিবেশী দেশটিতে মুদ্রাসহ আমদানী ও রপ্তানী নিয়ন্ত্রিত। ফলে সেদেশের অভ্যন্তরীণ পণ্য মূল্য আন্তর্জাতিক পণ্য মূল্যের সাথে, সামঞ্জস্যহীন। এই অবস্থায় এ দু'টো দেশের মধ্যকার চোরাচালান উভয় দেশের জন্যই লাভজনক হতে পারে। তবে বেশী লাভ হবে সে দেশের যে দেশ অবাধ বাণিজ্য নীতি অনুসরণ করে। উদাহরণ হংকং যেখানে অতিসামান্য ব্যতিক্রম ছাড়া আমদানী-রপ্তানী শুল্ক, বাণিজ্য নিষেধাজ্ঞার কোটা অথবা মুদ্রা নিয়ন্ত্রণ নেই। তাই সেখানে আন্তর্জাতিক বাণিজ্য ও চোরাচালান সমার্থবোধক। চোরাচালান (!) সেখানকার অর্থনীতিকে সমৃদ্ধই করে।

বৈদেশিক মুদ্রা আয় করা হয় আমদানীর জন্য। বাংলাদেশ ১০০ ডলার দিয়ে, ধরা যাক, একটি পণ্যের ২০ ইউনিট আমদানী করতে পারে। অন্যদিকে যদি বাংলাদেশ এমন পণ্য বিদেশ থেকে আমদানী করে যার প্রচুর চাহিদা আছে ও ভালো দাম পাওয়া যায় প্রতিবেশী দেশে; এবং ১০০ ডলার মূল্য পরিমাণ এ পণ্যটি প্রতিবেশী দেশে পাচার করে প্রথমোক্ত পণ্যটির ২০ ইউনিটের বেশী চোরাচালানের মাধ্যমে আমদানী করতে সক্ষম হয়, তাহলে তা সামগ্রিক দৃষ্টিকোণ থেকে লাভজনক।

৩) যদি প্রতিবেশী দেশে কোন পণ্যের উপর বিপুল আবগারী কর থাকে, যা বৈধভাবে রপ্তানীকালে মণ্ডকুফ পাওয়া যায়, তা হলে বাংলাদেশ প্রতিবেশী দেশ থেকে সেই পণ্যটি বৈধভাবে আমদানী করে, কিছু আমদানী শুল্ক সংগ্রহ করে, প্রতিবেশী দেশে লাভজনকভাবে পাচার করতে পারে। এ প্রক্রিয়াকে কর রপ্তানী করা বলা হয়।

৪) ধরা যাক একটি পণ্যের আন্তর্জাতিক বাজার মূল্য ১০০ ডলার। প্রতিবেশী দেশে পণ্যটি বিক্রি হয় ৩০০ ডলারে। এর কারণ হতে পারে একাধিক-পণ্যটির আমদানী নিষিদ্ধ, আমদানী

শুল্কহার বেশী অথবা উৎপাদন ব্যয় বেশী। আন্তর্জাতিক বাজার মূল্য ও প্রতিবেশী দেশের বাজার মূল্যের পার্থক্যের সুযোগে বাংলাদেশে পণ্যটি আমদানী করে, শতকরা ১০০ ভাগ আমদানী শুল্ক সংগ্রহ করে, প্রতিবেশী দেশে লাভজনকভাবে পাচার করতে পারে। এই প্রক্রিয়ায় বাংলাদেশের লাভ হবে ১০০ ডলার অথবা আমদানী শুল্কের সমান। এটিও কর রপ্তানীর একটি উদাহরণ।

সাধারণভাবে, যদি প্রতিবেশী দেশের অভ্যন্তরীণ পণ্য মূল্য আন্তর্জাতিক বাজারের তুলনায় বেশী থাকে তাহলে বাংলাদেশ সে সব পণ্য আমদানী করে, আমদানী শুল্ক সংগ্রহ করে, প্রতিবেশী দেশে পাচার করে লাভবান হতে পারে। একইভাবে যদি প্রতিবেশী দেশের অভ্যন্তরীণ পণ্য মূল্য আন্তর্জাতিক বাজারের তুলনায় কম হয় তাহলে প্রতিবেশী দেশ থেকে সে সব পণ্য চোরাচালানের মাধ্যমে আমদানী করা বাংলাদেশের জন্য লাভজনক। কিছু ক্ষেত্রে এভাবে সংগৃহীত পণ্যের বিদেশে রপ্তানীর সুযোগও থাকতে পারে। কর রপ্তানী প্রসঙ্গে অবশ্যই মনে রাখা দরকার যে বাংলাদেশের অভ্যন্তরীণ মূল্যনীতি সঠিক না হলে ক্ষেত্রবিশেষে ভর্তুকী রপ্তানীও সম্ভব এবং তাতে বাংলাদেশ ক্ষতিগ্রস্ত হবে। এই ভর্তুকী রপ্তানীর সবচেয়ে গুরুত্বপূর্ণ উৎস সম্ভবত বৈদেশিক মুদ্রা বিনিময় হার।

#### টাকার অতিমূল্যায়ন :

আন্তর্জাতিক বাণিজ্যে opportunity cost একটি খুবই গুরুত্বপূর্ণ concept একটি পণ্যের opportunity cost হচ্ছে পণ্যটির উৎপাদনের যে সম্পদ ব্যয় করা হয় তা দিয়ে সর্বোচ্চ মূল্যের যে পণ্যটি প্রস্তুত করা যায়। আন্তর্জাতিক বাণিজ্য থেকে সর্বোচ্চ পরিমাণ লাভ হয় তখনই যখন পণ্য মূল্য তার opportunity cost এর সাথে সামঞ্জস্যপূর্ণ হয়। এই অবস্থার বিকৃতি একটি দেশের জন্য খুবই ক্ষতিকর হতে পারে। মধ্যপ্রাচ্যের সেই দেশটির কথাই ধরা যাক। দেশটির comparative advantage হচ্ছে পেট্রোল রপ্তানী ও খাদ্য আমদানীতে। কিন্তু কোন বিদ্রোহ তত্ত্বের বশবর্তী হয়ে দেশটি প্রচুর ভর্তুকী দিয়ে বিপুল পরিমাণ খাদ্য উৎপাদন ও কিছু পরিমাণ খাদ্য রপ্তানী করতে পারে। এ ক্ষেত্রে সে ভর্তুকী রপ্তানী করছে এবং ক্ষতিগ্রস্ত হচ্ছে। স্পষ্টতঃ, অভ্যন্তরীণ মূল্যনীতি যদি comparative advantage এর পরিপন্থী হয় তাহলে কোন দেশ অবাধ বাণিজ্যের মাধ্যমে ক্ষতিগ্রস্ত হতে পারে।

বৈদেশিক মুদ্রা মূল্যবান, কিন্তু অমূল্য নয়। সাধারণভাবে, কর ও নিয়ন্ত্রণ মুক্ত বাজারে এক একক (unit) বৈদেশিক মুদ্রার অবাধ প্রতিযোগিতামূলক বাজার মূল্যই হচ্ছে বৈদেশিক মুদ্রার opportunity cost। ভোগ্য পণ্যের ক্ষেত্রে ক্রেতারা এক ডলার মূল্যের পণ্যের জন্য যে দাম দিতে ইচ্ছুক, অথবা কাঁচা মালের ক্ষেত্রে এক ডলার আমদানীতে নীট বাড়তি উৎপাদনকে এক ডলারের 'অর্থনৈতিক' মূল্য ধরা যেতে পারে। বাংলাদেশী টাকা বৈদেশিক মুদ্রার তুলনায় অতিমূল্যায়িত অর্থাৎ এক ডলারের অর্থনৈতিক মূল্য সরকার নির্ধারিত ৩৬.৬ টাকা নয়, বরং বেশী। ধরা যাক, টাকার অতিমূল্যায়নের পরিমাণ শতকরা ২০ ভাগ; তাহলে ১ ডলারের অর্থনৈতিক মূল্য দাঁড়ায় ৪৪ টাকা। স্পষ্টতঃ যদি কোন পণ্যের উপর আরোপিত শুল্ক হার

### গম্ফুরঃ চোরাচালান

শতকরা ২০ ভাগের কম হয়, তাহলে সে পণ্যের আমদানী ব্যয় 'অর্থনৈতিক' মূল্যের তুলনায় কম হবে। সেক্ষেত্রে যদি সে পণ্যটি বিদেশ থেকে আমদানী করে ভারতে পাচার করা হয়, তাহলে বাংলাদেশ ক্ষতিগ্রস্ত হবে। অন্যদিকে যদি কোন পণ্যের c.i.f মূল্য + শুদ্ধ তার অর্থনৈতিক মূল্যের তুলনায় বেশী হয় তাহলে সে পণ্য আমদানী ও পাচার সাধারণভাবে বাংলাদেশের জন্য লাভজনক। অন্যান্যের মধ্যে, সরকারী মূল্যকে দু'ভাবে অর্থনৈতিক মূল্যের কাছাকাছি নিয়ে যাওয়া যায়—টাকার অবমূল্যায়ন অথবা আমদানী শুদ্ধ আরোপের মাধ্যমে।

টাকার অতিমূল্যায়ন রপ্তানীর ক্ষেত্রে অনেক ধরনের সমস্যা সৃষ্টি করে; এর ফলে রপ্তানীযোগ্য পণ্য চোরাচালান হতে পারে। এ অবস্থা নিরশনের একটি পন্থা হচ্ছে রপ্তানী ভর্তুকী দেয়া; অপরটি কর-ভর্তুকী কাঠামোর ব্যাপক পরিবর্তন। টাকার অতিমূল্যায়ন অবৈধ পুঁজি রপ্তানী উৎসাহিত করে। বড় ধরনের অতিমূল্যায়ন দীর্ঘস্থায়ী হতে পারে না; এতে রপ্তানী নিরুৎসাহিত হয় ও আমদানী চাহিদা বাড়ে। ফলে এ ধারণা সৃষ্টি হয় যে, টাকার অবমূল্যায়ন আসন্ন। যাদের সুযোগ আছে তারা টাকা বিদেশে পাচার করে এবং টাকা অবমূল্যায়নের পরে যথাযথ সময়ে টাকা দেশে ফেরৎ নিয়ে এসে capital gain অর্জন করে।

### পুঁজির অবৈধ রপ্তানী :

আমদানীর overinvoicing এর মাধ্যমে রপ্তানী সবচেয়ে কম costly হয় তখনই যখন প্রযোজ্য আমদানী শুদ্ধ হার হচ্ছে শূণ্য। শুদ্ধ হার যত বেশী, আমদানী ক্ষেত্রে প্রযোজ্য কার্যকর মূদ্রাবিনিময় হার তত বেশী, এবং ফলে পুঁজি স্থানান্তরের ব্যয়ও তত বেশী। যদি শুদ্ধহার শতকরা দশভাগ হয় তাহলে কার্যকর মূদ্রা বিনিময় হার অথবা অবৈধ পুঁজি রপ্তানীর cost হবে ১ ডলার=৪০.২৬ টাকা; শুদ্ধ হার শতকরা ২০ ভাগ হলে তা হবে ১ ডলার=৪৪ টাকা। পুঁজি রপ্তানীকে নিরুৎসাহিত করার জন্য শুদ্ধ হার বাড়ানো যেতে পারে, কিন্তু তা আবার চোরাচালানে উৎসাহ যোগাবে। টাকার অবমূল্যায়ন অবৈধ পুঁজি রপ্তানীকে নিরুৎসাহিত করা প্রকৃষ্ট পন্থা।

রপ্তানীর underinvoicing এর মাধ্যমে অবৈধভাবে পুঁজি রপ্তানী সহজ, জনপ্রিয় ও কম costly। রপ্তানীতে নিয়োজিত পাবলিক সেক্টর প্রতিষ্ঠানের কর্মকর্তা ও প্রাইভেট সেক্টরের রপ্তানীকারকরা অনেকে এর সুযোগ নেয়। যেহেতু রপ্তানীর উপর সাধারণতঃ কোন শুদ্ধ নেই সুতরাং এক ডলার পুঁজি পাচারের cost হচ্ছে মাত্র ৩৬.৬ টাকা অথবা সরকারী হারের সমান। সরকারী হার বেশী হলে পুঁজি পাচার আরও ব্যয়সাধ্য হত।

অবৈধ পুঁজি রপ্তানীর সবচেয়ে সহজ পন্থা বিদেশ থেকে পাঠানো রেমিট্যান্সের সাথে টাকা বিনিময়। ওয়েজ আর্নার্স স্কীম (অথবা সেকেন্ডারী এক্সচেঞ্জ মার্কেট) এর হার সরকারী হারের তুলনায় কিছুটা বেশী। রেমিট্যান্সকে কেন্দ্র করে একটি চমৎকার কার্যকর ও নির্ভরযোগ্য নেটওয়ার্ক গড়ে উঠেছে যার মাধ্যমে বিদেশ থেকে পাঠানো ডলারের সাথে সহজেই টাকা বিনিময় করা যায়। এ বিনিময় হার সেকেন্ডারী এক্সচেঞ্জ মার্কেটের হারের কাছাকাছি।

সোনা চোরাচালান :

সোনা হচ্ছে একাধারে পণ্য ও আর্থিক সম্পদ। বাংলাদেশ, ভারতসহ এ অঞ্চলের অন্যান্য দেশে সোনা ব্যাপকভাবে ব্যবহার করা হয় অলংকার তৈরীর উপাদান হিসেবে। সোনা কখনও চোরাচালানের পণ্য লেনদেনের ও অবৈধ পুঁজি পাচারের মাধ্যম হিসেবে ব্যবহৃত হয়। তবে এ দু'টো কাজের জন্য সোনার ব্যবহার কম। রেমিট্যান্স অর্থের সাথে টাকা বিনিময় সহজতর হওয়াতে সোনার মাধ্যমে পুঁজি পাচার এখন তুলনামূলকভাবে অনেক বেশী ঝুঁকিপূর্ণ ও ব্যয়বহুল হয়ে পড়েছে। পুঁজি পাচারের একটি পন্থা হতে পারে সোনা কোন ভারতীয় operator এর কাছে এ শর্তে বিক্রি করা যে সে পরবর্তীকালে প্রবিন্দিষ্ট বিদেশী account এ বিনিময়যোগ্য মুদ্রায় চুক্তিবদ্ধ অর্থ জমা দেবে। এই বন্দোবস্তের আকর্ষণ কম এ জন্য যে, সোনার তুলনায় অন্য সব পণ্যের ভারতমুখী চোরাচালানে মুনাফার হার বেশী।

বাংলাদেশ, ভারত প্রভৃতি দেশে সোনা আমদানী প্রায় নিষিদ্ধ। কিন্তু এ সব দেশে সোনার প্রাপ্যতা বাড়ছে যার উৎস নিঃসন্দেহে সোনার অন্তর্মুখী চোরাচালান। অন্যদিকে, সোনা আমদানী নিষিদ্ধ হওয়াতে এসব দেশে সোনার বাজার মূল্য আন্তর্জাতিক বাজারের তুলনায় বেশী। সোনা তাই দেশী ও ভারতীয় বাজারের আকর্ষণে বাংলাদেশে আসে; পরে এর একাংশ সোনা ভারতে পাচার হয়। ভারতে সোনা চোরাচালান হয় কয়েকটি বন্দোবস্তে। একজন ভারতীয় operator বিদেশে সোনা সংগ্রহ করে ঢাকা বিমান বন্দর ও পরে বাংলাদেশ-ভারত স্থল সীমান্ত পথে সোনা চোরাচালান করতে পারে। এখানে কোন বাংলাদেশের সম্পদ যুক্ত নেই, তাই বাংলাদেশের অর্থনীতির উপর এর প্রভাব কম, বাংলাদেশী সাহযোগীদের লাভের অংশ বাদ দিলে। ভারতীয় operator সোনা বাংলাদেশেও বিক্রি করতে পারে, তবে সে ক্ষেত্রে তাকে বাংলাদেশ থেকে অণ্য পণ্য ভারতে চোরাচালান করতে হবে। উল্লেখ্য যে, বাংলাদেশ অপেক্ষা ভারতে সোনার দাম বেশী হলেও, অন্যান্য অনেক পণ্যের চোরাচালানে লাভ অনেক বেশী। একজন বাংলাদেশীও বিদেশ থেকে সোনা সংগ্রহ করে ভারতীয় চোরাচালানীর কাছে বাংলাদেশের অভ্যন্তরে অথবা সীমান্তের ওপারে বিক্রি করতে পারে। এক্ষেত্রে বাংলাদেশের অর্থনৈতিক লোকসান হবে যদি দেশী বাজারে সোনার দাম আন্তর্জাতিক বাজারের তুলনায় অন্ততঃ শতকরা ২০ ভাগ বেশী না হয়। এখানে সোনার দাম কম হলে একজন ভারতীয় চোরাচালানী কম পরিমাণ ভারতীয় পণ্যের বিনিময়ে ১ আউন্স সোনা পেয়ে যাবে। আগের আলোচনা সূত্র ধরে বলা যায় যে, সোনার অভ্যন্তরীণ বাজার মূল্যে অবশ্যই বৈদেশিক মুদ্রার opportunity cost প্রতিফলিত হতে হবে, অর্থাৎ সোনার দাম আন্তর্জাতিক বাজার অপেক্ষা অন্ততঃ শতকরা ২০ ভাগ বেশী হতে হবে। এ বিষয়ে জনতম যাই হোক না কেন, যে নীতির কার্যকর প্রয়োগ হচ্ছে না এবং যা কেবলমাত্র চোরাচালানী ও তাদের সহযোগীদের লাভবান করে তার অনুসরণ জাতীয় স্বার্থবিরোধী। সোনা আমদানী করতে দেয়া যেতে পারে, তবে শতকরা অন্তত ২০ ভাগ শুল্ক আরোপ সাপেক্ষে।

## গফুর : চোরাচালান

### মূল্যনীতির একটি রূপরেখা :

বাংলাদেশ কর্তৃক বৈধভাবে আমদানী ও পরবর্তীতে ভারতে চোরাচালানকৃত পণ্যের মূল্যনীতির বিষয়ে সংক্ষিপ্ত আলোচনা আগেই করা হয়েছে। এ ধরনের পণ্যের অভ্যন্তরীণ বাজার মূল্য কমপক্ষে প্রতি ডলারে ৪৪ টাকা (=১ ডলারের economic cost) হতে হবে। তবে যদি আমরা অন্তর্মুখী ও বহির্মুখী চোরাচালানকে একসাথে বিবেচনা করি তাহলে আমাদের উপরোক্ত ব্যক্তব্য কিছুটা সংশোধন করার দরকার হতে পারে। বাণিজ্য শর্ত মানদণ্ডে এক ডলার ব্যয় করে বিদেশ থেকে নিয়মিত আমদানী করে যে পরিমাণ পণ্য পাওয়া যায়, প্রতিবেশী দেশ থেকে চোরাচালানের মাধ্যমে তার চেয়ে বেশী জিনিষ না পেলে চোরাচালান দেশের জন্য অবশ্যই ক্ষতিকর। অর্থাৎ এক ডলার ব্যয় করে কোন পণ্য আমদানী করে তা ভারতে পাচার করে অর্জিত ভারতীয় রূপিতে যদি আন্তর্জাতিক বাজারে সরাসরি এক ডলার ব্যয় করে যত পরিমাণ পণ্য পাওয়া যেত তার চেয়ে বেশী পরিমাণ পণ্য পাওয়া যায় তাহলে তা সমষ্টিগত দৃষ্টিকোণ থেকে লাভজনক।

উদাহরণ হিসেবে, ধরা যাক একটি পণ্য বৈধভাবে আমদানী ব্যয় ১ ডলার এবং প্রযোজ্য শুল্ক হার শতকরা ২০ ভাগ। যদি ভারতে চোরাচালান হয়, তা হলে এর মূল্য হবে কমপক্ষে ভারতীয় ২৪.৬৪ রুপী (=টাকা ৩৬.৬ x ১.২০ x .৫৬; বর্তমান সীমান্ত বিনিময় মূল্য অনুসারে ভারতীয় ৫৬ রুপী=বাংলাদেশী ১০০ টাকা) যা ভারতীয় সরকারী বিনিময় হারে (১ ডলার = ১৭ রুপী)- ১.৪৪ ডলার। যদি চোরাচালানকৃত ভারতীয় পণ্য সামগ্রীর গড় মূল্য আন্তর্জাতিক বাজার মূল্যের তুলনায় শতকরা ৪৪ ভাগ বেশী না হয় তাহলে বাংলাদেশ এই operation থেকে লাভবান হচ্ছে। এ থেকে দু'টি সিদ্ধান্ত টানা যায়: (১) নিয়মিত আমদানীর তুলনায় চোরাচালানের মাধ্যমে প্রাপ্য পণ্য সস্তা হতে পারে; (২) চোরাচালানের মাধ্যমে আমদানি পণ্যের মূল্য পরিশোধে নগদ অপেক্ষা পণ্য অধিকতর সুবিধাজনক হতে পারে।

সাধারণভাবে, সরকারী মূদ্রা বিনিময় হারে ভারতীয় পণ্যের দাম আন্তর্জাতিক বাজার দর অপেক্ষা কম কিন্তু সব পণ্যের ক্ষেত্রে তা প্রযোজ্য নয় কারণ, অন্যান্যের মধ্যে অভ্যন্তরীণ বাজার মূল্যের মধ্যে অন্তর্ভুক্ত থাকে আবগারী কর যা রপ্তানীর সময় ছাড় পাওয়া যায়। অ-রপ্তানীযোগ্য পণ্যের মূল্য আন্তর্জাতিক বাজার মূল্যে তুলনায় বেশী অথবা (রপ্তানীর উপর নিষেধাজ্ঞা থাকার ফলে) কম হতে পারে। প্রাথমিক বিশ্লেষণে দেখা যায় যে ভারতের অভ্যন্তরীণ বাজারে গবাদি পশু, কৃষিজাত পণ্য ও কিছু কিছু শিল্প দ্রব্যের মূল্য আন্তর্জাতিক বাজার মূল্য অপেক্ষা কম।

### সরকারী রাজস্বের উপর প্রতিক্রিয়া :

চোরাচালানের একটি ফলাফল (consequence) হচ্ছে সরকারী রাজস্বের হ্রাসপ্রাপ্তি যদিও এ রাজস্ব এবং চোরাচালানী, আইন প্রয়োগকারী সংস্থার সদস্য ও তোক্তারেন্দ লাভের যোগফল প্রায় সমান তবে সরকারের রাজস্বের সামাজিক মূল্য প্রাইভেট সেক্টরের আয়ের তুলনায় সাধারণভাবে বেশী।

যে সব পণ্য চোরাপথে আমাদানি হয় কিন্তু যাদের মূল্য শোধ করা হয় বৈধভাবে আমদানীকৃত পণ্য দ্বারা, সে সব পণ্যের অন্তর্ভুক্তি চোরাচালানে রাজস্ব ক্ষতি কম হয়। অর্থাৎ রাজস্ব ক্ষতির পরিমাণ হচ্ছে, বৈধভাবে আমদানীকৃত পণ্যের (যা পরবর্তীতে পাচার হয়) উপর প্রদত্ত আমদানী শুল্ক ও চোরাপথে আমদানীকৃত পণ্যের উপর প্রযোজ্য আমদানী শুল্কের ব্যবধান। অর্থাৎ কোন কোন ক্ষেত্রে চোরাচালান সরকারী রাজস্ব বৃদ্ধির সহায়কও হতে পারে। একইভাবে, যে সব পণ্য, যথা বিদেশী সিগারেট, মদ, ইলেকট্রনিক সামগ্রী, ইত্যাদি বাংলাদেশের মাধ্যমে ভারতে চোরাচালান হয় তাতেও বাংলাদেশের কোন রাজস্ব ক্ষতি হয় না।

#### শিল্প সংরক্ষণ ও চোরাচালান :

অন্তর্ভুক্তি চোরাচালান সরকারের শিল্প সংরক্ষণ নীতির পরিপন্থী। অন্যান্যের মধ্যে সিগারেট, সুতা শাড়ী, চিনি শিল্পে বিশেষভাবে চোরাচালানের বিরূপ প্রতিক্রিয়া হয়। এ সব শিল্প সম্পর্কে বিস্তারিত আলোচনার অবকাশ এখানে নেই। তবে এ বিষয়ে কিছু মন্তব্য প্রাসঙ্গিক হবে। নানা কারণে একটি শিল্প সংরক্ষণের দাবী করতে পারে। কিন্তু এ সংরক্ষণনীতি আবার অপচয়মূলকও হতে পারে। ধরা যাক, একটি শিল্পের কার্যকর (effective) সংরক্ষণের হার শতকরা ২০০ ভাগ এবং এই শিল্পজাত পণ্যটির আন্তর্জাতিক বাজার মূল্য ১ ডলার। পণ্যটির উৎপাদনে প্রান্তিক ব্যয় (১ ডলার=৩৬.৬ টাকা হিসেবে) ১১০ টাকা; রপ্তানী শিল্পে এ পরিমাণ সম্পদ নিয়োজিত হলে তা দিয়ে ৩ ডলার আয় সম্ভব। অর্থাৎ এই অতি-সংরক্ষণের ফলে অর্থনৈতিক লোকসান হচ্ছে ২ ডলার। রপ্তানী পণ্যের নিচু চাহিদা-স্থিতিস্থাপকতা, বিদেশে আরোপিত আমদানী কোটার সমস্যা বিবেচনা করা হলেও উচ্চ সংরক্ষণের হার জনিত লোকসানের পরিমাণ খুব বেশী হয়ে থাকে। Comparative advantage এর পরিপন্থী শিল্পোন্নয়ন প্রচেষ্টা শিল্প বিকাশের উদ্দেশ্যকেই পরাস্ত করে।

কিছু পরিমাণ দূরবর্তীভাবে সম্পর্কিত হলেও দেশে সংযোজিত বিদেশী ব্রাভের ইলেকট্রনিক সামগ্রী এখানে প্রসঙ্গিক। এ সব পণ্যের উপর বিদেশী ছাপ থাকে তাই ভারতে এ সব পণ্যের চাহিদা এবং দাম বেশী। এ ধরনের পণ্য ব্যাপকভাবে ভারতে চোরাচালান হয়। প্রায়ই উল্লেখ করা হয় যে, এ সব শিল্প মূলতঃ 'জু-ড্রাইভার' শিল্প এবং এতে অভ্যন্তরীণ মূল্য সংযোগ (value added) খুবই কম। এ সব অভিযোগ সত্যি হলেও, যেহেতু ইলেকট্রনিক খুচরা যন্ত্রাংশের উপর আমদানী শুল্কের হার শতকরা ৫০ ভাগের বেশী, তাই এমনকি অভ্যন্তরীণ মূল্য সংযোগ শূন্য হলেও, এসব পণ্যের ভারতে চোরাচালান বাংলাদেশের অর্থনীতির জন্য ক্ষতিকর নয়।

#### শিল্পায়নের লক্ষ্য :

শিল্পায়নের লক্ষ্য জাতীয় আয় বৃদ্ধি। কোন শিল্প যদি লাভজনক না হয়, তাহলে তা শিল্পোন্নয়নের মূল লক্ষ্য বিরোধী, এবং এ ধরনের শিল্প সচল রাখা জাতীয় সম্পদের অপচয়। কোন শিল্প লাভজনক কিনা তা অবশ্য তার আর্থিক লাভের ভিত্তিতে নয় বরং অর্থনৈতিক লাভের মানদণ্ডে বিচার্য। অর্থনৈতিক মানদণ্ড অনুসারে, একটি শিল্পের সব উৎপাদনের

### গফুর : চোরাচালান

উপকরণ (inputs) ও উৎপন্ন দ্রব্য (outputs) কে সীমাস্ত মূল্যে (border price) অথবা সাধারণভাবে আন্তর্জাতিক মূল্যে মূল্যায়ন করে শিল্পটির প্রকৃত লাভের পরিমাণ তথা জাতীয় অর্থনীতিতে তার অবদান নির্ণয় করা হয়। তবে একটি শিল্প লাভজনক হওয়াই যথেষ্ট নয়। জাতীয় উৎপাদন অথবা আয় সর্বোচ্চ করণের লক্ষ্যে শিল্পায়ন দক্ষ হওয়ার প্রয়োজন। যদি বিনিয়োগযোগ্য সম্পদের পরিমাণ ১০০ কোটি টাকা হয় তাহলে তা এমন সব শিল্পে বিনিয়োগ করতে হবে যেখানে তা অর্থনৈতিক মানদণ্ডে সর্বোচ্চ মুনাফা অর্জন করতে পারবে। দুর্ভাগ্যক্রমে বাংলাদেশের শিল্পায়নে এ নিয়ম অত্যন্ত স্থূলভাবে লংঘন করা হচ্ছে। উপরোক্ত মানদণ্ডে বিচার করা হলে দেখা যাবে যে, বেশ কয়েকটি চারু শিল্পই আমাদের অর্থনীতির জন্য বোঝা। দ্বিতীয়তঃ, দেশের কর কাটামো ও বৈদেশিক মুদ্রা বিনিময় হারের ফলে রপ্তানী শিল্পে বিকশিত হতে পারছে না, যদিও অর্থনৈতিক মানদণ্ডে সামগ্রিকভাবে আমাদেশী শিল্পের তুলনায় রপ্তানী শিল্প অধিকতর লাভজনক।

### তুলনামূলক সুবিধাতত্ত্ব (comparative advantage) ও শিল্পায়নঃ

তুলনামূলক সুবিধাতত্ত্বের কিছু প্রাথমিক ধারণা আগেই দেওয়া হয়েছে। কিন্তু এ স্তরের জন্য এ তত্ত্বের আরও বিশদ আলোচনা প্রয়োজন। ধরা যাক, ১ হেক্টর জমিতে একজন কৃষক ১০ টন চাল অথবা ১৫ টন গম উৎপাদন করতে পারে। অর্থনীতির ভাষায়, ১০ টন চালের opportunity cost হচ্ছে ১৫ টন গম (অথবা ১৫ টন চাল অথবা ১৫ টন গমের opportunity cost হচ্ছে ১০ টন চাল)। স্পষ্টতঃ, যদি চালের বাজার মূল্য গমের তুলনায় দেড় গুণের কম হয়, তাহলে কৃষকটির পক্ষে গম উৎপাদন লাভজনক হবে। যদি চাল ও গমের মূল্য সমান হয় তাহলে কৃষকটি (১৫ টন) গম উৎপাদন করে ১৫ টন চাল কিনতে পারবে; অথচ সে মোট মাত্র ১০ টন চাল উৎপাদন করতে পারে। চালের দাম গমের দ্বিগুন হলে চাল উৎপাদন কৃষকটির জন্য লাভজনক হবে সে ক্ষেত্রে সে ১০ টন চাল উৎপাদন ও বিনিময়ে ২০ টন গম পাবে। সহজেই দেখানো যায় যে উৎপাদন বিনিময়ের (অথবা বাণিজ্যের) এ প্রক্রিয়ায় কৃষকটি কোন অবস্থায়ই ক্ষতিগ্রস্ত হতে পারে না।

যদি বিদেশী উৎপাদকরা বাংলাদেশী উৎপাদকদের তুলনায় বেশী উৎপাদনশীল হয় তাহলে তাদের আয় আমাদের তুলনায় বেশী হবে। কিন্তু উৎপাদন-বাণিজ্য প্রক্রিয়ায় আমাদের উৎপাদকরা ক্ষতিগ্রস্ত হবে না। এখানে উৎপাদক কথটির ব্যাখ্যা প্রয়োজন। অবাধ বাণিজ্যে উৎপাদকরা সামগ্রিকভাবে অবশ্যই লাভবান হবে, তবে কিছু কিছু উৎপাদক এতে ক্ষতিগ্রস্ত হতে পারে। ধরা যাক একটি অর্থনীতিতে মাত্র দু'জন কৃষক উৎপাদক আছে সেখানে প্রথমজন আগে বর্ণিত এবং দ্বিতীয় কৃষকটি তার জমিতে ৫ টন চাল অথবা ১২ টন গম উৎপাদন করতে পারে। ধরা যাক, নিয়ন্ত্রিত আন্তর্জাতিক বাণিজ্য অবস্থায় অভ্যন্তরীণ বাজার মূল্য ১ টন চাল = ২ টন গম হয়, তাহলে প্রথম কৃষকটি চাল উৎপন্ন করে আগের তুলনায় বেশী গম কিনতে পারবে, কিন্তু দ্বিতীয় কৃষকটি গম উৎপন্ন করে আগের তুলনায় কম চাল কিনতে পারবে। অর্থাৎ উন্মুক্ত বাণিজ্যের ফলে দ্বিতীয় কৃষকটির আয় কমে যাচ্ছে। নিয়ন্ত্রিত বাজার থেকে উন্মুক্ত বাজারে অবস্থান পরিবর্তন করলে সামগ্রিকভাবে জাতীয় আয় বৃদ্ধি পায় কিন্তু

আন্তর্জাতিক বাজার মূল্যে অদক্ষ উৎপাদকদের লোকসান হয়। সংরক্ষণের ফলে অদক্ষ উৎপাদকরা লাভবান হয় কিন্তু দক্ষ উৎপাদকরা তথা রপ্তানীকারকরা ও জাতীয় অর্থনীতি ক্ষতিগ্রস্ত হয়। শিল্প সংরক্ষণ নীতি অদক্ষ উৎপাদকদের লাভবান করে ও দক্ষ রপ্তানী শিল্প বিকাশে বাধা সৃষ্টি করে।

এ প্রসঙ্গে একটি ব্যতিক্রম বিশেষভাবে গুরুত্বপূর্ণ। কোন দেশ যদি কর ও ভর্তুকী দ্বারা অভ্যন্তরীণ আপেক্ষিক মূল্যকে খুব বেশী বিকৃত করে তাহলে অবাধ বাণিজ্যনীতি সেদেশের জন্য কল্যাণকর নাও হতে পারে। প্রথমতঃ, ধরা যাক যে সরকার চালের উৎপাদনের উপর শতকরা ১০০ ভাগ আবগারী কর আরোপ করেছে, সেক্ষেত্রে প্রথম কৃষকটি চালের বদলে গম উৎপাদন করবে। এর ফলে, যেমন আগের উদাহরণে দেখানো হয়েছে, জাতীয় অর্থনীতি ও প্রথম কৃষকটি ক্ষতিগ্রস্ত হবে দ্বিতীয়তঃ, যদি অতি উৎসাহী হয়ে সরকার রপ্তানী বৃদ্ধির লক্ষ্যে দ্বিতীয় কৃষকটিকে চাল উৎপাদনে উৎসাহ দেবার জন্য শতকরা ৪০ ভাগ ভর্তুকী দেয়, তাহলে কৃষকটি চাল উৎপাদন করবে, যার পরিমাণ ৫ টন। দেশটি এ চাল রপ্তানী করে মাত্র ১০ টন গম আমদানী করতে পারবে, যেক্ষেত্রে এর বদলে দেশটি ১২ টন গম উৎপাদন করতে পারত। কৃষকটি অবশ্য এতে লাভবান হবে, কারণ সে ২ টন চাল ভর্তুকী পাচ্ছে। গমের হিসাবে এ ৭টন (উৎপন্ন ৫ টন+ভর্তুকীপ্রাপ্ত ২ টন) চালের মূল্য ১৪ টন, যেখানে সে মাত্র ১২ টন গম উৎপাদন করতে পারে। যেহেতু ভর্তুকীর ২ টন চাল সরকারের লোকসান, সুতরাং জাতীয় দৃষ্টিকোণ থেকে সরকারের লোকসান ও কৃষকের ২ টন ভর্তুকীর চাল কাটাকাটি হয়ে যাবে।

তাহলে দেখা যাচ্ছে যে, দেশজ উৎপাদনের উপর অপ্রত্যক্ষ কর ও ভর্তুকী সামঞ্জস্যহীন হলে, অবাধ বাণিজ্য একটি দেশের জন্য ক্ষতিকর হতে পারে। কর ও ভর্তুকীর যে উদাহরণটি উপরে দেওয়া হয়েছে, তা আংশিক (Partial) কর ও ভর্তুকী। যদি কর ও ভর্তুকী সার্বজনীন (general) হয় তাহলে উপরে উল্লেখিত সমস্যার সৃষ্টি হয় না চাল ও গমের উপর একই হারে কর আরোপ করা হলে অথবা একই হারে ভর্তুকী দেওয়া হলে কর-ভর্তুকী পূর্ব আপেক্ষিক লাভের তথা উৎপাদনের অনুপাতের কোন তারতম্য হবে না কৃষকরা কর ও ভর্তুকীর আগে যা উৎপন্ন করতো পরেও তাই করবে। অর্থাৎ এ ধরনের সার্বজনীন কর আপেক্ষিক মূল্যের বিকৃতি ঘটায় না এবং অবাধ বাণিজ্য এ ক্ষেত্রে দেশের জন্যে সামগ্রিকভাবে মঙ্গলজনক হয়। সাম্প্রতিককালে প্রস্তাবিত value added tax এমন একটি কর যা আপেক্ষিক মূল্যের সবচেয়ে কম বিকৃতি ঘটাবে।

তুলনামূলক সুবিধা তত্ত্ব অনুসারে উৎপাদন করা হলে এবং বাজার মূল্যে প্রত্যেকটি পূণ্যের opportunity cost প্রতিফলিত হলে আন্তর্জাতিক বাণিজ্য থেকে সর্বাধিক লাভ অর্জন করা যেতে পারে। বিপরীতে, যদি এ দু'টি শর্ত পূরণ না হয় তাহলে আন্তর্জাতিক বাণিজ্যের ফলে একটি দেশ কম লাভবান এমনকি ক্ষতিগ্রস্তও হতে পারে। প্রথমেই দেখা যাক বাংলাদেশের শিল্পায়ণ তুলনামূলক সুবিধা তত্ত্বের সাথে সামঞ্জস্যপূর্ণ কিনা? সাধারণভাবে দু'টি পূণ্যের আন্তর্জাতিক মূল্যের অনুপাতের সাথে তাদের opportunity cost এর অনুপাতে

### গফুরঃ চোরাচালান

সামঞ্জস্যহীন হলেই সমস্যা সৃষ্টি হতে পারে। অন্ততঃ দু'টি ক্ষেত্রে এ নিয়মের লংঘন ইদানিং বহুল আলোচিত হচ্ছে। বাংলাদেশের কয়েকটি শিল্প অতি সংরক্ষিত (over protected)। অতি সংরক্ষণের সমস্যা হচ্ছে দু'ধরণের। প্রথমতঃ, সংরক্ষিত শিল্পের মধ্যে অতি সংরক্ষিত শিল্পসমূহ তুলনামূলকভাবে কম সংরক্ষিত শিল্প অপেক্ষা অনেক বেশী অভ্যন্তরীণ সম্পদ ব্যয় করে ১ ডলার পরিমাণ বৈদেশিক মুদ্রা বাঁচায় (save)। দ্বিতীয়তঃ, অতি সংরক্ষিত শিল্পসমূহ রপ্তানী শিল্পের তুলনায় অর্থনৈতিক বিচারে কম লাভজনক হলেও আর্থিক দিক থেকে বেশী লাভজনক হওয়াতে বিনিয়োগকারীরা রপ্তানী শিল্প এসব শিল্পে বিনিয়োগে আগ্রহী হয়। ফলে শিল্পে বিকাশ অপচয়মূলক হয়। অর্থাৎ ১ ডলার আয়ে অথবা বাঁচানোতে অধিক পরিমাণ দেশজ সম্পদ ব্যয় হয়।

বাংলাদেশ রপ্তানী শিল্প বিকাশের জন্য কয়েকটি বিশেষ সুবিধা দিয়ে থাকে। সাম্প্রতিককালে এক প্রতিবেদনে এ সব উৎসাহদানের (incentive) এর কার্যকরীতা বিশ্লেষণ করা হয়েছে [১]। এ প্রতিবেদনে বলা হয়েছে যে, রপ্তানী শিল্পের জন্য প্রদত্ত সুবিধা সমূহের তুলনায় বাংলাদেশ টাকার সাথে বৈদেশিক মুদ্রার বিনিময় হার রপ্তানী শিল্প বিকাশে অধিকতর সুবিধা সৃষ্টি করছে। বিষয়টি সংক্ষেপে এরকম। এক ডলারের shadow price, ধরা যাক, ৪৪ টাকা; অন্যদিকে ১ ডলারের সরকারী বিনিময় হার হচ্ছে ৩৬.৬ টাকা। সরকার প্রতি ডলার মূল্যের রপ্তানীর জন্য রপ্তানীকারকদের যে সব সহায়তা (assistance) দিয়ে থাকে তার মূল্য যদি ৭.৪ টাকার কম হয় তাহলে সরকারের রপ্তানীনীতি প্রকৃতপক্ষে রপ্তানীকারকদের নিরুৎসাহিত করছে।

### বৈদেশিক বাণিজ্যের উপর কর ও শিল্পায়নঃ

কাঠামোগত দিক থেকে টাকার অতিমূল্যায়ন (over valuation) ও আমদানী বাণিজ্যের উপর শুদ্ধারোপ অঙ্গাঙ্গীভাবে জড়িত। বাংলাদেশের কর কাঠামো বৈদেশিক বাণিজ্যে শুদ্ধের উপর বিশেষভাবে নির্ভরশীল—মোট করের শতক ৫৫ ভাগই আসে এ উৎস থেকে। আমদানী শুদ্ধ যত বেশী হবে ডলারের (অথবা বৈদেশিক মুদ্রার) চাহিদা তত কমে যাবে এবং তার দাম ও shadow price এর তুলনায় কম হবে। অর্থনীতির বিচারে আমদানী শুদ্ধ এবং বৈদেশিক মুদ্রার উপর কর চূড়ান্ত বিচারে এ ই ফলাফল সৃষ্টি করে। তাই আমদানীর উপর শুদ্ধ অপ্রত্যক্ষভাবে রপ্তানী শিল্পে বিকাশের প্রতিবন্ধক এবং তা রপ্তানী ও আমদানী শিল্পের মধ্যে নিরপেক্ষতার শর্ত ভঙ্গ করে।

আমদানী শুদ্ধ আরোপ করা হয় এ ধারণা থেকে যে এতে আমদানী বিকল্প শিল্প গড়ে উঠবে এবং দেশ শিল্পায়িত হবে। এ অনুমান, আমরা দেখেছি, দু'টি কারণে সঠিক নাও হতে পারে। প্রথমতঃ এর ফলে আমদানী বিকল্প শিল্প গড়ার সাথে সাথে রপ্তানী শিল্প বিকাশে প্রতিবন্ধকতা সৃষ্টি হয়। ফলে এ নীতি নীট শিল্পায়ণে কতটা সহায়ক হয় বলা যায় না। দ্বিতীয়তঃ, এ পদ্ধতিতে শিল্পায়ন খুবই অদক্ষ হয়ে থাকে। বাংলাদেশে যেমন ঘটছে, আমদানী বিকল্প শিল্পের উৎপাদন ব্যয় বেশী হওয়াতে দেশী ক্রেতাদের পক্ষে তা বেশী পরিমাণে কেনা

সম্ভব হচ্ছে না। শেষ পর্যন্ত, অভ্যন্তরীণ বাজারের 'সীমাবদ্ধতার' উপর শিল্পোদ্যোগের ব্যর্থতার দায়ভাগ চাপানো হচ্ছে।

#### ক্রেতাদের অধিকারঃ

অতি সংরক্ষণ নীতির ফলে ক্রেতাদের স্বাভাবিক অধিকার ব্যহত হয়। রবিনসন ক্রেশোর দ্বীপের অর্থনীতিতে কোন স্বার্থের সংঘাত ছিল না। একটি আধুনিক অর্থনীতিতে ক্রেতারা আশা করবে কম দামে উন্নত মানের পণ্য আর উৎপাদকেরা চাইবে তাদের উৎপন্ন পণ্যের জন্য সর্বাধিক দাম। সাধারণভাবে, ক্রেতাদের স্বার্থ রক্ষিত হয় একটি উন্মুক্ত, প্রতিযোগিতামূলক বাজারের মাধ্যমে আর উৎপাদকদের স্বার্থ রক্ষিত হয় যথাসম্ভব সংরক্ষিত বাজারে। এ প্রতিযোগিতায় সাধারণতঃ উৎপাদকরা জয়ী হয় কারণ তারা ধনী ও সংগঠিত এবং বিপরীতে ক্রেতারা পরস্পর বিচ্ছিন্ন ও অসংগঠিত। এ জন্যই দেখা যায় যে, দেশী উৎপাদকরা প্রায়ই এমনসব পণ্যের জন্য বৈদেশিক প্রতিযোগিতা হতে সংরক্ষণ পেয়ে যায় যার মান খুবই নিচু এবং দাম খুবই বেশী। ক্রেতারা এ সব পণ্য কিনতে বাধ্য হয় শিল্পায়নের, এমনকি দেশপ্রেমের নামে।

#### উদ্যোক্তাদের দক্ষতাঃ

প্রায়ই বলা হয়ে থাকে যে, বাংলাদেশী শিল্প উদ্যোক্তারা যথেষ্ট অভিজ্ঞ ও দক্ষ নয় এবং ঐতিহাসিক কারণে আমাদের প্রযুক্তির মান যথেষ্ট উন্নত নয়। সুতরাং আমাদের শিল্পোদ্যোগকে বৈদেশিক পণ্যের প্রতিযোগিতা থেকে সংরক্ষণ না করা হলে তা গড়ে উঠবে না। আমরা আগেই এ বিষয়ে আলোচনা করেছি। নিরপেক্ষ কর কাঠামোতে প্রতিযোগিতামূলক বাজারে বৈদেশিক মুদ্রার বিনিময় হার রপ্তানী ও আমদানীর মধ্যে ভারসাম্য রক্ষা করে। আন্তর্জাতিক মূল্যমানে রপ্তানী ও আমদানী শিল্পের বিভাজন হয়ে থাকে বাজার প্রক্রিয়ার মাধ্যমেই। তুলনামূলক সুবিধা অনুসারে শিল্পায়ন হলে আমাদের অদক্ষতার মাত্রা অনুযায়ী বাংলাদেশের জাতীয় আয় কম হবে, তবে তা আমাদের শিল্পোদ্যোগকে ব্যাহত করবে না। অবশ্য এ জন্য প্রয়োজন হবেঃ (১) যথাযথ অথবা ভাসমান (floating) মুদ্রা বিনিময় হার যা আমাদের রপ্তানী ও আমদানী বিকল্প শিল্পকে সংরক্ষণ করবে, এবং (২) শিল্প সংরক্ষণের লক্ষ্যে বিদ্যমান আমদানী করের বদলে অধিকতর নিরপেক্ষ কর, যথা value added tax এর প্রবর্তন। এ দু'টি শর্ত পূরণ হলে তা এখনকার তুলনায় দ্রুত ও দক্ষ রপ্তানী ও আমদানী বিকল্প বিকাশে সহায়ক হবে।

এ আলোচনার এখানেই সমাপ্তি টানা যেতে পারে। অবাধ বাণিজ্য অথবা চোরাচালান নয়, বরং আমাদের মুদ্রা বিনিময় হার এবং প্রধানতঃ শিল্প সংরক্ষণের লক্ষ্যে আমদানী কর<sup>১</sup>

১. দেশে প্রস্তুত হয় না এমন সব আমদানীকৃত বিলাস দ্রব্যের উপর করের বোঝা বহন করতে হয় প্রত্যক্ষভাবে ধনী ভোক্তা ও অপ্রত্যক্ষভাবে রপ্তানীকারকদের। এ ধরনের কর যে কাম্য নয় তা নয়, তবে রপ্তানীকারকদের আয় ও রপ্তানী হাসজনিতে নেতিবাচক দিকটা অপসারণ করাও গুরুত্বপূর্ণ। প্রসঙ্গঃ, উঁচু আবগারী কর ও ফলে উঁচু আমদানী শুল্ক হার যেসব পণ্যের উপর আরোপিত হয়, সেসব পণ্য উৎপাদন অদক্ষ হলে অবাধ বাণিজ্য সরকারের রাজস্ব ক্ষতির সাথে তুলনা করতে হবে আমদানীকারক, ক্রেতা ও সমষ্টিগত অর্থনৈতিক (১) ডলার পরিমাণ উৎপাদনে অদক্ষ শিল্পে নিয়োজিত সম্পদের মূল্য বিয়োগ গড় দক্ষ শিল্পে নিয়োজিত সম্পদের মূল্য লাভের। এ ক্ষেত্রে পণ্যটির উৎপাদন বন্ধ এবং আমদানীর উপর যথাযথ হারে আমদানী কর আরোপ হলে রাজস্ব আদায়ে হেরে হবে না কিন্তু অর্থনীতির পক্ষে তা লাভজনক হবে।

### গফুরঃ চোরাচালান

(যা অপ্রত্যক্ষভাবে রপ্তানীকে নিরুৎসাহিত করে) বাংলাদেশের শিল্পায়নের প্রধান প্রতিবন্ধক। চোরাচালান দেশের অর্থনীতিতে অনেক সমস্যা সৃষ্টি করে, কিন্তু সঠিক কর ব্যবস্থায় তা শিল্পায়নে বাধা সৃষ্টি করে না। অথবা বলা যায় যে, বর্তমান কর ও মুদ্রা বিনিময় নীতি এবং অন্যান্য শিল্পনীতি বিদ্যমান রেখে যদি চোরাচালান সম্পূর্ণ বন্ধও করা যায়, তাহলেও দেশের শিল্পায়নের হারের তেমন পার্থক্য হবে না। চোরাচালান বন্ধ করার নামে আমরা সাধারণভাবে স্বাভাবিক বাণিজ্য সংকুচিত করছি। আন্তর্জাতিক বাণিজ্য সংকুচিত করে, এমনকি তা সম্পূর্ণ বন্ধ করেও একধরনের শিল্পায়ন সম্ভব, কিন্তু তা আমাদের অর্থনীতিকে দুর্বল ও দরিদ্রতরই করবে।

### শেষ মন্তব্যঃ

আন্তর্জাতিক বাণিজ্য অথবা চোরাচালান বিষয়ক তত্ত্ব বাংলাদেশের ক্ষেত্রেও প্রযোজ্য। তবে একটি নয়, বাংলাদেশ দু'টি সেট আন্তর্জাতিক মূল্যের মুখোমুখি হচ্ছে—একটি বৈধ ও অপরটি চোরাচালান সীমান্ত মূল্য। এ দু'টি সেট সেই সীমান্ত মূল্যের উপস্থিতি বাংলাদেশের অর্থনীতির জন্য সহায়ক হতে পারে, যদি তার অভ্যন্তরীণ বাজার মূল্য যথাযথভাবে opportunity cost কে প্রতিফলিত করে। বাংলাদেশ সেক্ষেত্রে এ দু'টি বাজারের সাথে দ্বিপাক্ষিকভাবে এবং অথবা যোগসূত্র হিসাবে লাভজনক ভাবে বাণিজ্যে অংশগ্রহণ করতে ও লাভবান হতে পারবে।

বাংলাদেশ-ভারত সীমান্ত মূল্য নিরীক্ষণ করা হলে দেখা যাবে যে, চোরাচালান খুবই লাভজনক। প্রশ্ন হচ্ছেঃ এ লাভ কিভাবে বাংলাদেশ ও ভারতীয়দের মধ্যে ভাগ হচ্ছে অথবা চোরাচালানের বাণিজ্যশর্ত কতটা আমাদের অনুকূলে? দু'ভাবে এ সমস্যার মোকাবেলা করা যায়। এক, চোরাচালানে নিয়োজিত ভারতীয় পুজি ও ব্যক্তিদের অবস্থান দুর্বল করার জন্য প্রয়োজনীয় সকল ব্যবস্থা গ্রহণ। দুই, টাকার অবমূল্যায়ন ও নির্বাচিত পণ্য সামগ্রীর উপর যথাযথ হারে আমদানী শুল্ক আরোপ। দু'একটি ব্যতিক্রম ছাড়া যে সব আমদানীকৃত পণ্য ভারতে চোরাচালান হয় তাদের উপর আরোপিত আমদানী শুল্কনীতি (অথবা সে সব পণ্যের অভ্যন্তরীণ মূল্যনীতি) প্রতিবেশী দেশের অভ্যন্তরীণ মূল্যের সাথে সামঞ্জস্যপূর্ণ হতে হবে। অর্থাৎ প্রতিবেশী দেশে কোন পণ্যের দাম বেশী হলে আমাদের ঐ সব পণ্যের উপর আমদানী শুল্কও বেশী হারে ধার্য করা অথবা আমাদের অভ্যন্তরীণ বাজারে তাদের মূল্যবৃদ্ধির অন্য ব্যবস্থা নেওয়া যায়। তবে এ বিষয়ে অবশ্যই সতর্ক হতে হবে যে, অতিরিক্ত শুল্কহার যেন বিদেশ থেকে চোরাচালান উৎসাহিত না করে এবং এ হার এমন একটি optimal level এ ধার্য করা হয় যাতে অবৈধ বাণিজ্য থেকে বাংলাদেশের লাভ সর্বোচ্চ হয়।

বাংলাদেশী টাকার অবমূল্যায়ন অথবা প্রস্তাবিত শুল্কহার দেশে প্রস্তুত পণ্যের তুলনায় আমদানীকৃত পণ্যের দাম বৃদ্ধি করবে। ফলে চোরাচালানের মাধ্যমে আমদানীকৃত পণ্যের মূল্য পরিশোধে দেশে প্রস্তুত পণ্য অধিকতর পরিমাণে ব্যবহার করা হবে। এভাবে বাংলাদেশী টাকার বর্তমান বেসরকারী বিনিময় মূল্য টাকা ১০০=৫৬ রূপী হতে কমে ধরা যাক টাকা ১০০=৪৫ রূপীতে নেমে আসবে। এই বিনিময় হারের ফলে বাংলাদেশের কিছু শিল্প যথা, সুতী শাড়ী, চিনি ইত্যাদি আরও বেশী সংরক্ষণ সুবিধা পাবে।

বাংলাদেশকে চোরাচালান বিরোধী নীতি ও বাস্তবায়ন ব্যবস্থা গ্রহণ হবে অত্যন্ত সতর্কতা ও সুবিবেচনার সাথে। আইন প্রয়োগকারী সংস্থা সমূহকে selectively intervence করতে হবে নির্বাচিত পণ্যের চোরাচালানের বিরুদ্ধে। এ ধরনের selectivity যে শুধু কাম্য তাই নয়, বরং তা চোরাচালান বিরোধী প্রশাসনকে সহজতর করবে। সবচেয়ে, চোরাচালান বাংলাদেশের অর্থনীতিকে ক্ষতিগ্রস্ত করবে কিনা তা নির্ভর করবে আমাদের কর ও মূল্য নীতির উপর। যদি আন্তর্জাতিক বাণিজ্য মূল্য বাংলাদেশের পণ্য সমূহের opportunity cost প্রতিফলিত করে তাহলে উন্মুক্ত বাণিজ্য অথবা চোরাচালান আমাদের অর্থনীতিতে কোনভাবেই বিরূপ প্রতিক্রিয়ার সৃষ্টি করতে পারবে না। চোরাচালানের সমস্যা তাই মূলতঃ বাণিজ্য, মূল্য ও করনীতিরই সমস্যা।

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## APPROACH TO INDUSTRIAL DEVELOPMENT IN DRAFT FOURTH FIVE YEAR PLAN : A COMMENT

ZAID BAKHT\*

DEBAPRIYA BHATTACHARYA\*\*

### 1. THE ROLE AND STRUCTURE OF THE INDUSTRIAL SECTOR

The Draft Fourth Five Year Plan (DFFYP) recognised that "acceleration of growth of GDP in the long run depends critically on the growth of the industrial sector". In the medium run, a "supporting role" has been designated to the industrial sector in the "agriculture sector led growth scenario" envisaged by the Plan. The Plan stipulates a harmonious and mutually reinforcing growth of agriculture and industrial sector. Such a phased approach to the industrialization process seems to be in order given the countries resource endowments and structural features. However, one has to remain cognisant of the extent to which the current structural dynamics of the economy is commensurate to this envisaged approach of transition to an augmented role of the industrial sector.

One of the main features of the structural change taking place in the Bangladesh economy over the last two decades is the declining relative contribution of the agriculture in GDP<sup>1</sup>. During this period all other sectors of the economy, excepting industry, have enhanced their shares in GDP. A scrutiny of the sectoral contribution to incremental GDP exposes that the shares of trade and services, transport and communication, etc. surpassed that of the industry during the last five year<sup>2</sup>. As a result the sectoral share of manufacturing has remained virtually stagnant over the recent past. It appears that the on-going structural transformation of the Bangladesh economy has virtually by-passed the industrial sector thus prolonging the process of long-term transition of the economy.

\* Senior Research Fellow and

\*\* Research Fellow, Bangladesh Institute of Development Studies (BIDS).

1. Only during the last five years the share of agriculture has come down from 43.32% (1984-85) to 39.15% (1989-90).
2. The contributions of trade and services, and transport and communication to incremental GDP during 1984/85- 1989-90 were 26.54% and 16.90% respectively in comparison to 9.63% of industry.

According to the Draft Fourth Five Year Plan (DFFYP), the share of manufacturing sector in total GDP is around 10% and with extended coverage the share might be around 12%<sup>3</sup>. A recent national estimate of value added in the manufacturing industries prepared by the BIDS puts the concerned figure in the range of 12.6% for the year 1987-88, where the matching official figure was 8.49% [1]. Thus, the plan quoted figure of 12%, while still suffering from underestimation, may not be very off the mark.

The DFFYP states that the industrial sector provides employment to 3.09 million people (11% of total employment) of which one-third each is employed in i) large, medium and modern small industries, ii) handloom sub-sector and iii) other cottage industries. Although the Plan does not mention the source of this information, but it appears that this industrial employment structure has been derived from the Economic Census (1987-88)<sup>4</sup>. On the other hand, elsewhere (p. 1-19) the benchmark estimate of manufacturing employment for 1989-90 has been mentioned as 2.52 million man-years.

However, for a proper assessment of the state of affairs in the industrial sector and its trends, it is necessary to take a close look at the emerging intra-sectoral structural features. Such an analysis is supposed to have strong bearing on the articulation of plan strategy as well as on formulation of concrete measures for industrial development. The structural attributes of the industry sector may be analysed, at least, from the following five vantage points: a) scale of operation or size of the units, b) end-use of the products, c) market orientation of the units, d) factor intensity of the manufacturing processes, and e) form of organisation or legal ownership pattern of the units. Admittedly, a comprehensive analysis of the industrial structure of Bangladesh, encompassing all the aforementioned aspects, is seriously handicapped by the absence of adequate and reliable data-base. However, this does not mean that attempts should not be made to collect and collate available evidence and make, within limits, meaningful interpretations.

Among the aforementioned five elements of analysis of industrial structure, the DFFYP takes note of the first two only. The DFFYP presents distribution of manufacturing employment and value added by large and

3. Although it has been mentioned elsewhere in the Plan that the share industry in GDP (1989-90) is 7.49% (p. 1-20) and 9.17% (p.11-2).

4. Unfortunately, the DFFYP never mentions its sources of information while citing figures, thus making it difficult to assess the reliability of the data, particularly given the definitional problems.

small/cottage industries for the year 1981-82. One is surprised to find that Planning Commission has mentioned such dated figures. According to a recent BIDS estimate in 1987-88, large scale industries (with 20+workers) accounted for 46.6% (whereas the DFFYP states 57.5%) and small and cottage industries—53.4% (whereas the DFFYP states 42.5%) of the manufacturing value added [1]. Regarding the manufacturing employment there is a strong possibility that the large-scale industries employments (17.8%) mentioned by the DFFYP is an understatement, if we recall that it was mentioned earlier that the large, medium and small modern units provide 33% of the manufacturing employment. Notwithstanding the quality of these data, the plan document does not attempt to analyse the figures and offer any observation.

The other structural aspect of the manufacturing sector mentioned in the Plan relates to composition of value-added by end-use of products. The information presented in the concerned table (Table - 6.2) is suspect<sup>5</sup>. The tables shows that the share of consumer goods decreased within a span of two years from 59% (1979/80) to 52% (1981/82) and which was again restored to 59% in 1985/86. On the other hand, during the same time intervals the share of capital goods jumped from 6% to 12% and was dramatically diminished to mere 2%. Such structural shifts, in an otherwise stagnant sector, is quite difficult to explain. The only possible explanation which comes to mind is that, the sustained relative importance of the intermediate goods (35%—39%) is due to commissioning of new fertilizer production capacities, whereas the figures relating to consumer goods to some extent reflect upsurge of the RMG sub-sector. However, one feels confused reading the observation made in the Plan in this regard, where in the same breath it has been said that "significant growth" has occurred in the share of intermediate goods industries and there is "absence of any remarkable change in the structural composition".

However, in this context, the most disquieting aspect is that, the section on industrial structure has remained totally oblivious about such issues as changes in relative shares of the units producing for domestic and external markets, incidence of labour and capital intensive units, extent of private and public control over the production capacities in the sector. It is reckoned that, absence of information on an analysis of these issues in the dynamic context have deprived us from very pertinent insights relevant for designing the future industrial strategy.

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5. Once again, there is no mention of source or basis of these estimates.

## II REVIEW OF THE PAST PERFORMANCE

The DFFYP presents its discussion on past performances of the industrial sector in two parts. In order to put the analysis of past achievements of the industrial sector in proper perspective, a synopsis of the earlier mid-term plans has preceded the detailed review of the Third Five Year Plan (TFYP). One can only but agree with the general assessment elaborated in the DFFYP regarding the state of industrial growth in the country. The DFFYP mentions that the First Five Year Plan (FFYP) was characterised by a rapid growth of industrial output growing at an average annual growth rate of around 9% per annum<sup>6</sup>. It further says that, "infact the rates of growth of industrial production is significantly lower in the 1980's (about 2.5% per year since 1980/81) than in the 1970's (4.3% per year during 1975/76 through 1979/80)<sup>6</sup>.

Characterisation of the state of affairs in the industrial sector during the 1980's in the DFFYP is replete with such observations as -"rise- in capital output ratio" "falling capital productivity", "increase of average incremental value added ratio", "decline in total factor productivity", "decline in rate of growth of manufacturing output", "fall in labour productivity".

Analysing the production performance of selected major industries during the TFYP, the Plan document has noted that the jute industry has continued to stagnate, growth rate of cotton yarn production fell drastically while mill-made cloth production registered marginally positive growth, the substantial increase in fertilizer production was mainly due to launching of two big factories, the growth of paper and newsprint production slowed down considerably, production of steel ingot declined in physical term. The only significant recovery achieved was in the sugar and cement sub-sector, although they were still far below the targeted production figures.

The financial performance analysis of the public sector corporations indicated that, during 1985-90 period, the net loss of the 8 corporation amounted to about Tk. 845.18 crores, of which the two major agencies BJMC and BTMC accounted for 96% of the total loss<sup>7</sup>. During this period the contribution of these 8 corporations to the national exchequer has been estimated to be Tk. 1210.28 crores.

6. The growth rates of manufacturing sector value added during the FFYP, Two Year Plan (TYP), Second Five Year Plan (SFYP) and the Third Five Year Plan (TFYP) were 9.24%, 2.26%, 4.76% and 4.32% per year respectively.

7. It appears that there is computational problem in Table-6.4 of the Plan which presents the financial performance of the sector corporations.

The TFYP envisaged creation of 5.30 lakh of industrial employment (10.41% of new job opportunities) of which small and cottage industries were to generate 2 lakh direct employment. Unfortunately the DFFYP does not mention the progress made during the last plan period in achieving these targets. The DFFYP only indicates that, under the public sector industrial investment programmes, not more than 10 thousand direct employment might have been created and that disbursement of about Tk. 515.20 crore in the small and cottage sector is expected to have created employment opportunity for 2.00 lakh people.

Among the indicators of industrial performance, obviously the extent of realisation of the investment programme is of paramount importance. An amount of Tk. 5800 crores (at 1984/85 prices) was earmarked for investment in the industries sector during TFYP, of which allocation for public sector was Tk. 2600 crores (45%) and projection for private sector was Tk. 3200 crores (55%). According to the DFFYP, the quantum of realised investment by the government agencies relating to the industry sector is to the tune of Tk. 4933 crores (at 1984/85 prices) indicating 88% achievement of the target. However, one can not miss that this relatively 'high' aggregate rate of target fulfilment was achieved thanks to over-investment by a number of agencies (e. g. BEPZA—206%, TIP—129%, BCIC—118%, BSB—113%, IBA—111%), many of which are not directly production oriented agencies.

However, the most perplexing aspect of the investment programme analysis is the treatment of private sector investment. The DFFYP states that during July '85 to June '89, against a total sanction of Tk. 4285.22 crores, Tk. 1700 crores (40%) was disbursed to large and medium scale industries (LMI), although it is maintained that the actual investment would be much lower. Concurrently, for the small and cottage industries (SCI) during the first four years of TFYP about Tk. 515.20 crores has been "disbursed", whereas it has been expected that during 1989-90 "an additional amount" of Tk. 351 crore would be "invested". It becomes quite impossible to extract from this labyrinth of investment figures ('provision', 'sanctioned', 'disbursed', 'expected equity', 'actual', 'realised' etc.) in real terms the quantum of resources which has gone into the private sector industries during the last five years. Furthermore, while no figure of actual total industrial investment has been cited in the Industry section of the Plan, it has been mentioned elsewhere that private investment (excluding non-monetised investment) during the TFYP period in the manufacturing sector amounted to Tk. 1314 crores (at 1984/85 prices) indicating 41% target

achievement (p.11-4)<sup>8</sup>. One fails to relate this figure with those presented in Table-6.7.

The nature of and trend in private sector investment in Bangladesh have recently become an issue of vigorous debate. Presently various sources are citing diverging numbers, derived from different data base and using non-comparable methodologies. Unfortunately Plancom did not attempt to reconcile these figures and come up with a set of reliable estimates. However, the qualitative observations made in the DFFYP regarding the private investment trend (e.g. "private sector investment in large and medium scale industries is not encouraging") correspond with the assessments provided by other sources relating to industrial private investment.

The performance indicators of the industries sector obviously prompt us to relate them with the policies pursued during this period. The major industrial policy initiatives of this period emanated from the New Industrial Policy (NIP) of 1982 and Revised Industrial Policy (RIP) of 1986. The contents of these documents are well known to us. It is almost a decade, since when we are trying foster our industrial development within these policy designs. All sources (planning commission, Board of Investment, HIID/ESEPP, World Bank) indicate that the investment, and particularly private investment, as percentage of GDP has declined during the 1980s- the whole investment debate now centres around in ascertaining the extent of this decline [1]. The promised foreign investment did not trickle in<sup>9</sup>. The DFFYP acknowledges that "on the

Whole the production and capacity utilisation have deteriorated during the plan period". the DFFYP preferred to remain silent about what went wrong with generous funnelling of credit to the sector which have resulted into an amount of Tk. 3000 crores overdue loans (Tk. 1200 to the DFIs and Tk. 1800 to the NCBs), virtually paralysing the financial sector. The number of sick units continues to swell, while the denationalised industries continue to incur losses. Under such a circumstances, it could be justifiably expected that, after doing the necessary stock taking, the DFFYP would take a hard, hard look at the prevailing situation and decide on the root of

8. This figure will still be a suspect because of the methodology used by the plancom to estimate private investment. Plancom derives private sector investment figures by adding an expected equity generation with the industrial credit disbursement figure. It is well known that in Bangladesh a large share of industrial credit are channelised to conspicuous consumption and equity figures indicated are highly over-valued.

9. Interestingly, the DFFYP regarding achievement in attracting foreign investment mentions only of holding of the Investors Forum and signing of only 6 MOU.

the frustrated industrial development efforts-whether the ill lies in the policy framework or in the implementation. Or is it really the structural features which have remained beyond the influences of the policy variable. This assessment was even more important because the government has promised a modified industrial policy by the end of the year. To our total dismay we find that, the plan has shown total insensitivity to this critical situation which is overtly demonstrating non-responsiveness to the declared policy stimuli<sup>10</sup>.

### III CONSTRAINTS FACING THE INDUSTRIAL SECTOR AND INDUSTRIAL STRATEGY IN THE DFFYP

The DFFYP contains a long list of factors inhibiting the growth of industrial sector, omitting perhaps only one factor, the state of private entrepreneurship development in Bangladesh. The constraints mentioned are well-known and the presentation has a bookish flavour. It is a haphazard compilation of standardised issues without any systematic attempt to analyse the aspects and establish the causality derived from the past experience. Possibly the only honourable exception in this regard is the treatment of the issues relating to development of small and cottage industries.

While we broadly agree with the identification of the barriers to industrial growth, the question remains regarding the relative emphasis to be attached to each of them while designing the strategy, sequencing the policy measures and prioritising resource allocation. Available evidence and research tend to suggest that, within a demand-supply framework, demand failure happens to be the most critical constraint of industrial development in Bangladesh. On the supply side, the major factor impeding industrial growth is low factor productivity. Besides these two, credit disbursement in a proper manner has proved to be a critical element. Obviously, for formulating any meaningful industrial development strategy, concrete and feasible policy measures taking note of these elements, should constitute the crux of the package. The recently completed HIID/ESEPP project at the plancom also underscores these aspects [2].

In order to realise such a package, it appears the economic role of the state in Bangladesh needs to be reconsidered. marginalisation of the public sector, manifesting in hasty denationalisation and reduction in allocation for public manufacturing enterprises, has not only depleted

10. Paradoxically, the DFFYP, as success parameter of the NIP and RIP has to mention increase in export earning, but it is well-known that enhancement in export performance is primarily attributable to RMG which is a specific phenomenon based on shifts in the international division of labour.

aggregate investment, but has also dampened the aggregate demand. Given the present level of development Bangladesh it is the state which will be providing the much needed resources for R&D. It is the state which is making international market space for the private sector. As a matter of fact, the circumscribed direct economic role of the state has become counter-productive for the growth of the private sector., depriving the latter from the benefits of linkage effects. Economic history of the developing countries, including that of the newly industrialised ones bears testimony to the fact that, over and above a guiding and facilitatory role of the state, its direct entrepreneurial role is highly desirable. Surprisingly, the DFFYP regarding its future strategies did not have even a word to say about the residual public sector, particularly relating to its autonomy and accountability, pricing policy of products, productivity and efficiency etc.

It appears from the DFFYP that the private sector will be the prime mover of the industrialisation process in Bangladesh. Even regarding the understanding the privatisation strategy the DFFYP has let us down. The DFFYP did not have nothing more to add to a simple statement that, "encouragement will be provided to local, foreign and joint venture private investment through appropriate incentive and policy regulation". Privatisation in the present world is a sophisticated process demanding more intricate policy designs and their efficient implementation. Unfortunately, the DFFYP, drawing lessons from the past experience of private sector performance and taking note of the real problems faced by the entrepreneurs, did not attempt to elaborate and provide fine tuning to its specific approach to this important issue. Thus aspects of privatisation as contents of deregulation, entrepreneurship development, capital market development remain unaddressed.

It seems that the DFFYP has elaborated industrial strategy in isolation from the prevailing general policy-framework, as a result the interface of the envisaged strategy with the macropolicy variables are not distinct. To cite example: a financial sector reform is presently being implemented in the country the industry section of the plan demonstrates total lack of awareness regarding how this reform is going to affect the sector regarding access to credit, cost of borrowing etc. It also seems that the DFFYP did not pay attention to the impact which the structural adjustment programme is going to have on the industries sector, particularly on the SCI sub-sector. While efficient, import substitution is the objective, is it really beneficial for development of the indigenous industrial unit to have such across the board import liberalization, particularly when the principle of free trade is

being flouted by the developed countries. Besides the disjuncture between the sectoral policies and the macroeconomic framework, it appears that, there is a mismatch between the sectoral policy design of the plancom and the operational policy initiatives of the line ministries. The recent attempt in the budget to do away with differential import duty structure for the industrial units located in less-developed region indicates that.

A couple of words about some of the other strategies. We very much appreciate that the plan has identified development of national technological capacities as an important strategic variable. The two-pronged thrust of "make-some and buy-some" is possibly the optimal way to handle the issue. However, one has to seriously think whether a KIST type institute or a national level design engineering company is the answer to the problem. We understand, instead of ambitious fundamental research in industrial technology development, gradual technological transition (not adversely affecting the employment possibilities) bringing about upgradation and diversification of product and contributing to skill development should be emphasised. The other issue relates to efforts of the government to develop industrial infrastructure. This relates particularly to the development of industrial zones and estates, including for the exported oriented enterprises. It is unfortunate that the plan document has failed to take note of the outcome of the "White elephant" of BSCIC, its industrial estates. Similar caution may be also mentioned regarding EPZ, which has been allocated about 10.5% of allocation for the new projects.

It has pleasing to see reflections of some of the BIDS studies on the DFFYP, particularly relating to cotton textile, handloom, sericulture and SCI sub-sectors. But the point is whether all these envisaged programmes and recommendations will be materialised. If yes, how? The DFFYP fails to assure us in this regard. For example, to best of our knowledge, the GOB is not contemplating to set-up neither the proposed National Textile Design and Training Centre (NTDTC) nor the handloom Marketing Organisation (HMO), accordingly no resource allocation has been made to these ends. Similarly, till date reorganisation and revitalisation of the promotional bodies, i. e. BHB, BSB, BSCIC etc. are not in the active agenda of the government. It appears to us that, the bright ideas espoused by the DFFYP will end up as a document of good intentions due lack of operational policy support and absence of resource allocation, particularly by the donors.

The sub-sector programmes, once again excepting for the SCI, is full of sweeping and general observations. For example, regarding the chemical and mineral industries it has been mentioned that "factors like non-availability of raw materials, high cost of production, management deficiencies, inability to identify bankable projects and default of foreign exchange for investment" are affecting these industries. Research indicate that different types of industries, usually grouped under the common head of chemical and mineral industries, have different types of bottleneck. For example, the fertilizer plants (particularly urea) do not have raw material problem, its basic ill is liquidity crisis and high cost of production. The DFFYP did not take the pains to relate specific problems of each type of industries to their future programme direction.

#### IV. FINANCIAL OUTLAY FOR FFYP TARGET RATE OF GROWTH

A cursory look at the objectives of all past the mid-term plans of the country will reveal that, there is hardly any basic difference among them. While all the objectives were derived from a common set of generic policy, the rest is a question of semantics. The DFFYP did not also mark any departure from this trend. The whole point is whether adequate resource allocation has been made to achieve these objectives and to what extent the strategies are conducive towards their realisation and whether necessary institutional support and operational measures are being initiated.

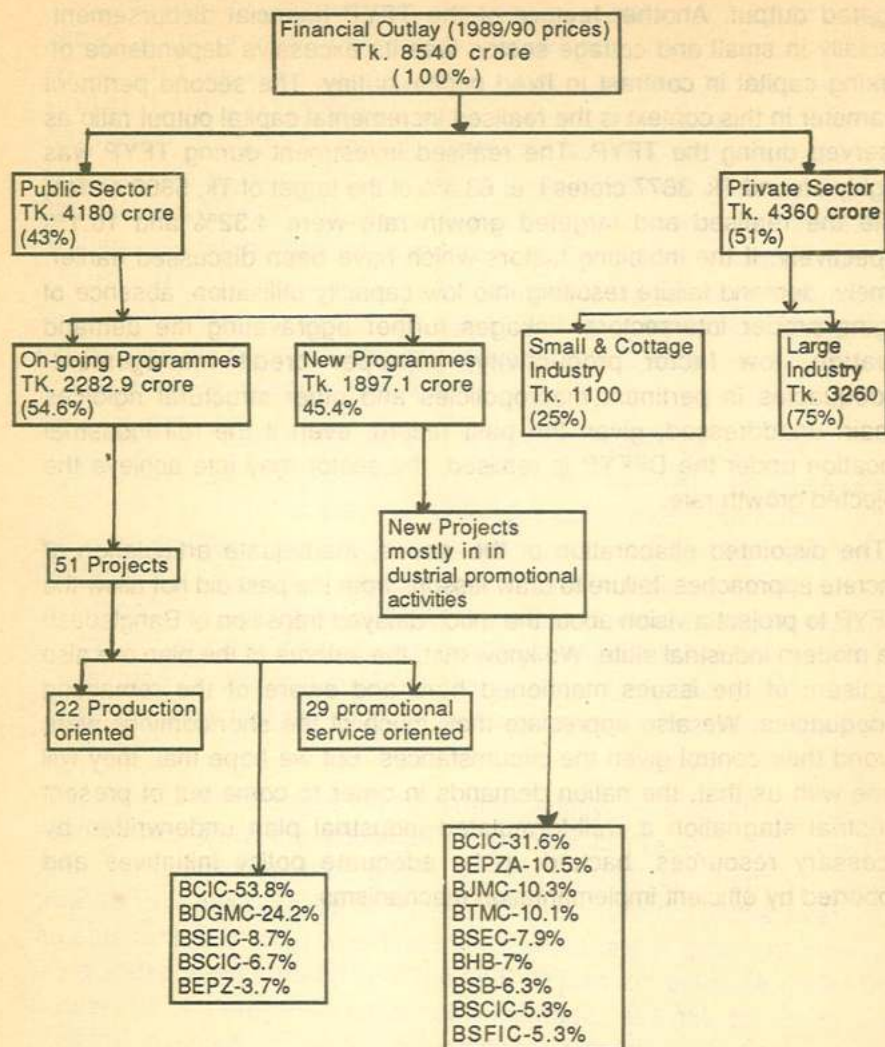
The DFFYP envisages an investment outlay of Tk. 8540.00 crore (at 1989/90 prices) for the industries sector of which Tk. 4180.00 crore has been allocated for the public sector and the (indicative) investment for the private sector has been set at Tk. 4360.00 crore (see fig). If this investment target is achieved, what would be the expected rate of growth of industrial value added during the FFYP? The DFFYP puts the estimate of average annual rate of increase of industrial value added at 9.1%, but there is no explanation regarding how this growth rate is estimated. The implicit capital output ratio used in this estimation seems to be of the magnitude of about 2. While this figure close to what is often quoted on the estimate of capital output ratio in the manufacturing sector of Bangladesh one could raise questions about the legitimacy of use of such figures on several grounds.

First, the level of incremental output is critically dependent on the composition of investment. If a significant component of the investment outlay is not directly production oriented (as has been the case in the TFYP

and as is also likely to be so in DFFYP) this would have its bearing on the targeted output. Another feature of the TFYP financial disbursement, specially in small and cottage sector, was its excessive dependence on working capital in contrast to fixed capital outlay. The second pertinent parameter in this context is the realised incremental capital output ratio as observed during the TFYP. The realised investment during TFYP was roughly around Tk. 3677 crores i. e. 63.4% of the target of Tk. 5800 crores, while the realised and targeted growth rate were 4.32% and 10.1% respectively. If the inhibiting factors which have been discussed earlier, namely, demand failure resulting into low capacity utilisation, absence of forging proper intersectoral linkages further aggravating the demand situation, low factor productivity, improper credit management, inadequacies in pertinent macropolicies and other structural rigidities remain unaddressed, given the past record, even if the full industrial allocation under the DFFYP is realised, the sector may not achieve the projected growth rate.

The disjointed elaboration of the issues, inadequate articulation of concrete approaches, failure to draw lessons from the past did not allow the DFFYP to project a vision about the much delayed transition of Bangladesh to a modern industrial state. We know that, the authors of the plan are also cognisant of the issues mentioned here and aware of the remaining inadequacies. We also appreciate that, much of the shortcomings were beyond their control given the circumstances. But we hope that, they will agree with us that, the nation demands in order to come out of present industrial stagnation a well-formulated industrial plan underwritten by necessary resources, backed up by adequate policy initiatives and supported by efficient implementation mechanisms.

Fig. Breakdown of the Financial outlay of the DFFYP for the Industry Sector.



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## EMPOWERMENT AND DEVELOPMENT : TOWARDS LIVELIHOOD SECURITY

ATIUR RAHMAN\*

Most professionals – politicians, bureaucrats, scientists, academics and others, and including ourselves – have plunged into debate and action in the middle, without questioning what has brought us there, what we are conditioned to see and to believe, or what others see and believe. We have had neither time nor incentive to examine ourselves and our predispositions, nor the poor and theirs [4; 7].

### 1. INTRODUCTION

The implementation philosophy of the Draft Fourth Five Year Plan of Bangladesh is explicitly based on among others promotion of decentralized participatory planning through empowerment of the people [10;1-17]. The Fourth Plan 'intends to bring the poor and the disadvantaged from the periphery to centre of development process' [10;1-16], by implementing the philosophy of 'extended self-interest' in which the government officers would require to improve the delivery system so that benefits of development reaches the poor and the disadvantaged [10; 1-17]. The intention of reaching the poor is further emphasised in the section on social welfare programmes. The draft Fourth Five Year Plan reiterates: "The ultimate objective of the integrated and comprehensive approach of social welfare programmes is to encourage effective participation of these groups (i.e. socially and economically disadvantaged in the national development process both as contributors and as beneficiaries and ensure their access to and control over development inputs rather than being passive recipients of relief and charity" [10; xii-i].

The Fourth Plan also aims at "mainstreaming women in development planning" and thus empowering a group which have been traditionally disadvantaged [10; 1-8,9]. The Third Five Year Plan too intended to bring in the disadvantaged groups into mainstream development [9:393]. The second plan was even more explicit:

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\* Senior Research Fellow, Bangladesh Institute of Development Studies.

"Traditional social welfare programmes have given emphasis on providing limited assistance to vulnerable groups like physically handicapped vagrants, destitutes and criminals and these services had the basic character of charity and relief the current outlook at social welfare stresses on providing welfare not only as provision of benefit to deserving people, but also to bringing about changes in the elements of social structure which are responsible for their deprivation and exploitation"[8: xvii-25].

The First Plan had the objectives 'to improve the existing social environment ..... (and)..... to protect the existing social order from the threat of disruption or from being burdened by those members of the society who cannot satisfy social needs on their own' [7: 530].

Besides, all the plan documents have always highlighted poverty alleviation as one of the most important objectives. Human resource development too became an explicit goal in the later plan documents. And this is nothing surprising. The constitution of Bangladesh is quite unequivocal about the emancipation of the disadvantaged ones. "The emancipation of the toiling masses—the peasants and workers and backward sections of the people from all forms of exploitation" has been enshrined in Article 14 of the constitution as one of the basic goals of Bangladesh State. Article 16 mandates "effective measures to bring about radical transformation in the rural areas" as constitutional responsibilities of the state. Article 19 instructs the state to take measures to remove social and economic inequality between man and man". Strengthening of local government institutions and the participation of women in national life were also prescribed as fundamental principles of state policy by the 1972 constitution of Bangladesh. No government, whatever means by which they may have come to power, ever attempted to negate these fundamental state policies. Indeed most governments avowed to strengthen these aspirations of the nation in their policy statements.

However, achievements in most of these fields fell far short of the hopes and aspirations. The affliction of poverty is now much deeper than what it was in the pre-independence days. Benefits of expanding public services in general and special programmes in particular have not reached those for whom the constitution gave explicit directives. Instead power (economic and political) has concentrated into a few hands who care very little about institutionalisation and political democracy, which were the fondest dreams of the struggling millions of Bangladesh.

The paper seeks to examine why those dreams of gradual empowerment of all instead of "the one, the few, the well-born or the many" could not be materialized [3]. In section two, a macro scenario (both short-term and long-term) of degeneracy of those earlier hopes will be presented depicting everincreasing deprivations of the majority. Section three will critically examine the major strategies of various plans for promised 'empowerment of the people.' With particular emphasis on those which have been highlighted in the draft Fourth Plan. In Section four we will try to relate the above empirical findings with an analytical framework of empowerment within the broad contour of successive theories of development. Section five will concentrate on the perception of the people themselves about empowerment and livelihood aspirations, a neglected theme in literature. Section Six concludes the paper.

## 2. A MACRO SCENARIO OF DEGENERACY

### 2.1 *Empowerment of a Few*

Despite lofty objectives of poverty alleviation most governments in Bangladesh lacked coherent development policies which are not arbitrary and personalised. The results have been promotion of highly centralized bureaucratized authoritarian structures intended mainly to rationalize the grabbing of scarce development resources by a few away from the majority. This has helped empower politicians, bureaucrats (civil and military) and economic elites to capture control of most national, (and even external) resources, mostly resulting in unproductive use within the country or outright transfer to other countries. The poor, whose needs were promised to be addressed, in the process further lost their grounds and became more vulnerable to crises, natural and man-made.

### 2.2 *Planned Targets Unfulfilled*

The planned targets of growth of GDP have never been achieved and investment programmes have hardly kept pace with those targets [14]. First plan targeted a GDP growth rate of 5.5%. But the achievement was only 4.0% (73% of the target). The second and third plans achieved only 60% of what they targeted to achieve in term of growth of GDP. The shortfall in growth rates may be related to the failure of investment plans to achieve their targets (see Table 1 for the status of public investment plans). The shortfall of investment target during the first plan was 4.7%. The figures were 15% and 30% during second and third plans [14; 3]. Both private and public sector miserably fail to achieve their investment targets.

However, what is more alarming is that: "the underfulfilment of the investment targets was more severe for the soft sectors such as agriculture education, health and population control and socio-economic infrastructure. These are sectors from which the low income group may benefit proportionately more. For agriculture and education sectors only 50 per cent of the public investment targets were realized. The target was over fulfilled for physical planning and housing, which involves construction activities. The situation was also better for energy and industry sectors which are import-intensive and are dominated by pressure groups. These are also sectors with high capital-output ratios and low labour intensity. This differential pattern of implementation of the investment programme is not consistent with the stated objective of alleviation of poverty reduction of underemployment and human resource development," [14:8].

Available evidence aptly confirms most of the apprehensions made in the above paragraph.

Table 1: Allocation and Realization of Public Sector Investment

(Tk. crores. 1989/90 prices)

| Sectors                            | Second Five Year Plan |        |                  |         | Third Five Year Plan |                  |        |
|------------------------------------|-----------------------|--------|------------------|---------|----------------------|------------------|--------|
|                                    | Fourth                | Actual | Achieve-<br>ment | Targets | Actual               | Achieve-<br>ment | Plan   |
|                                    | Targets               |        |                  |         |                      |                  |        |
|                                    | Allocation            |        |                  |         |                      |                  |        |
|                                    | rate                  |        |                  |         |                      |                  |        |
| rate                               |                       |        |                  |         |                      |                  |        |
| Agriculture and Rural Development  | 10,014                | 7,553  | 75               | 10,652  | 5,444                | 51               | 11,021 |
| Industry                           | 3,661                 | 2,283  | 62               | 3,923   | 3,084                | 79               | 4,180  |
| Energy and natural resources       | 5,405                 | 5,572  | 103              | 8,562   | 6,001                | 70               | 8,350  |
| Transport and communication        | 4,014                 | 3,790  | 94               | 4,564   | 3,318                | 73               | 6,810  |
| Physical planning and housing      | 1,502                 | 1,358  | 90               | 830     | 954                  | 115              | 1,241  |
| Education, STR                     | 1,506                 | 1,230  | 75               | 1,931   | 944                  | 49               | 2,477  |
| Health and popula-<br>tion control | 1,575                 | 1,305  | 83               | 2,142   | 1,273                | 59               | 2,777  |
| Socio-economic infrastructure      | 532                   | 421    | 79               | 463     | 267                  | 58               | 548    |
| Others                             | 1,017                 | 1,945  | 191              | 4,651   | 4,558                | 98               | 3,326  |
| Total                              | 29,236                | 25,357 | 87               | 37,718  | 25,843               | 69               | 40,730 |

Source: [ 14: 8 ]

### 2.3 The Short-term Evidence on Poverty and Unemployment

The per capita income in Bangladesh is one of the lowest in the world (\$170 in 1988-89) [39:1,2] and the poorest 40% of its population had as

low as Tk. 2450 or \$82 per capita income in 1986 [20;5]. Much more disturbing are other indicators of per capita standard of living.

The Fourth Plan finds poverty situation of Bangladesh still overwhelming and reveals that 51 per cent of the rural population and 65 per cent of urban population are 'poor' [10; 11-4].

According to 1983/84, HES, 37% of our people consumed less than 1800 k.cals per capita per day. Many received much less than 1800 k.cals. It is therefore clear that between a quarter and a third of our people have much lower food consumption for prolonged periods.

They are thus exposed to serious risk of health damage. The malnutrition among children is even more serious and 94% of them suffer from some degree of malnutrition.

Widespread poverty, malnutrition and hunger have also been reported by a 62 village survey (1989-90) of BIDS. Using head count ratio, it was found that 60% of the sample were below poverty line [39;60]. It was further noted that there is a distinct underclass averaging roughly to a quarter of the population which may be categorized as "hardcore" poor. The 'hardcore' poor live in extreme distress i.e. on an income level of a full 50% below the poverty line. Those who subsist on or around the poverty line may be categorized as 'vulnerable'. There is more extreme level of distress within the 'hardcore' poor representing roughly a tenth of the rural population who are not only extremely poor but are virtually shelterless on a regular basis.

Employment generation has been much lower than expected. It has been estimated that about 3.93 million person years of employment were generated during the third plan period as against planned target of 5.1 million. The slowdown in economic growth, and investment may have affected employment generation. This is also reflected in the declining of real wage. Since wage constitutes a significant portion of the income of rural households (31% of income of bottom 37% of rural households in 1973/74; 44% of income of bottom 55% of rural households in 1978/79), its decline means falling purchasing power of the poor.

It has been estimated that average real wages in the five years ending in 1987/88 were about 25 per cent lower than in the second half of the 1960s [20;15a]. According to this estimate there was small increase in real wage (both in terms of coarse rice and purchasing power) since 1981/82 to 1985/86 and then reversed, showing a decline of 4 to 5 per cent annually

during last few years.

Compared to 1969/70 real wages in manufacturing dropped by more than a third immediately after independence and since then may not have reached to preindependence level [20;15b]. Since late 1970s, there has been no substantial change in the movement of real wages in manufacturing industries. The wages of unskilled construction workers would be about the same as in manufacturing sector. The recent floods and the macro-economic adjustment programmes may have actually deteriorated the real wage situation both in agricultural and non-agricultural sector. The on-going Gulf crisis may have further accentuated the processes of deprivations especially in areas where there is concentration of unskilled return migrants.

The situation could have been worse in the rural areas had there been no improvements in jute acreage, HYV rice and wheat acreage and of course, Food-for-Work Programme. Also there has been some success in rural credit system through a few selective specialised institutions. But all these may have made only marginal impact on the real wage situation and could not contain the deteriorating poverty syndrome.

The less favourable situation in the employment and real wage have forced donors and government to expand special programmes often stretching too much upsetting the normal public expenditure pattern. The programmes, mostly relief oriented may not have real effect on the poverty situation as major beneficiaries are often the poorly trained and motivated public employees and involved power elites.

#### *2.4 Long-term Scenario on Poverty Situation*

Besides this short-term scenario in the poverty front, Khan and Hossain [20;166] have emphasized to keep an eye on some of the long-term forces tending to accentuate poverty situation. The forces which may aggravate poverty situation include:

- i. Due to high growth of population and very slow growth of non-agricultural employment, the supply of labour has been increasing rapidly.
- ii. There has been virtually no increase in net land acreage. The increase in cropping intensity is at best modest because of inadequate investment in irrigation and water management. The land-man ratio has been nearly halved during 1951-81 accompanied by further concentration in landownership. More people have thus been forced out of cultivation, further increasing the supply of wage

labour.

- iii. Demand for labour has increased at a very slow pace. The spread of HYV may have contributed to some increase in demand for labour, but the increase was not as much as would have been possible due to lack of appropriate policies. Unemployed person-days as proportion of total person-days of agricultural labourers available increased from 20% in 1974 to only 23% in 1983/84.

Given this worsening of the overall poverty situation, it is quite likely that the conditions of hardcore poor in particular women and children may have further deteriorated.

There is evidently widespread discrimination against women in terms of access to services, employment and income. Growing number of women have been forced to join labour market due to increase in landlessness just to supplement family incomes. A great many of them are now effective household-heads and primary earning member as divorces and desertions by men in the face of mounting economic crisis are on the increase. However, as wage labourers they get only about half the wage of their male counterparts (according to 1983/84 Labour Force Survey). In the manufacturing sector, though in recent years wage employment for women has expanded substantially (for example in garment industry), their working conditions are far worse than an average urban worker in other industries. Their long working hours, modest wage and virtually no job security make them a distinct class of disadvantaged work-force. They do not have appointment letters and can be hired and fired at the sweet will of employers.

Besides these quantifiable indicators of poverty, there are a number of missing dimensions of poverty which centre around issues like vulnerability and insecurity [28]. While vulnerabilities may be physical, social and motivational, the issue of insecurity originates from violence and structural tensions perpetuated by state. Also the gradual shrinkage in access into common property resources (i.e. grazing grounds, water bodies, forests etc.) For them, coming together in an organisation breaking isolation is perhaps a very important resource. The quality of life which is the ultimate goal of development can only be ensured if they can take control over the changes and circumstances through, say development of horizontal organisations networks rather than vertical ones.

The currently available government or donor documents never consider these missing dimensions of poverty, as these involve much more complex

and wider political issues, including the one on empowerment

### *2.5 Deteriorating Human Resource Development Indication*

In the field of human resources development, measured in terms of basic indicators of literacy, health and nutrition, Bangladesh's achievement is extremely dismal.

The adult literacy rate is one of the lowest in the world (29%) [39]. The primary and secondary enrolment rates are roughly 58% and 27% respectively. These rates are significantly below the levels achieved in other LDCs. Even though primary schooling provides highest rate of social returns (not always perceived by beneficiaries). The public expenditure has been the lowest here. According to Khan and Hossain government expenditure and subsidy per student at the primary level have been less than 2 per cent of the corresponding amounts at the university level [20; 142]. Again, the slow growth of primary school enrolment is accompanied by a high dropout rate (50% of entrants after first year; 25% in subsequent years). Again, the dropout rate is higher among the landpoor groups as their opportunity cost of sending boys to school is greater than that of others.

In the health sector, the picture is not very healthy either. According to a BIDS survey only 32.5% of households have access to government health-care facilities [19]. Maternal and child health services are among the worst in the world, causing 6 maternal deaths per 1000 live births, 110 infant deaths, 80 neonatal deaths and 168 child deaths per 1000 live births. Only 12% of the sickness are treated by government health centres and 26% by qualified doctors. The rest are treated by unqualified indigenous practitioners. There is only one doctor for 5546 persons and the proportion of nurses to doctor is 50% as against 148% in India and 428% in Sri Lanka.

Public expenditures for human resources development have remained roughly constant at about 2.4% of GDP between [39;155]. The current average annual current expenditure on education during 1975/76-1977/78 was 13.5% of total Government expenditure [20;139]. This was 11.2 per cent during 1982/83 to 1984/85.

This figure is substantially below the average of 16.4% for Africa, 12.7% for Asia and 14.7% for developing countries (figures are for 1980).

The share of health sector in the total current government expenditure for those in the above two periods are 4.3% and 3.8%.

The pattern of public expenditures indicates that households below

poverty line reap much less compared to those above the line. Thus an average household below poverty line got Tk. 190.40 on account of current public expenditure for human resource development as opposed to Tk. 782.60 by an average household above the poverty line during FY 1986 [39;129]. In education alone, non-poor household received Tk. 671.55 as against an ultra-poor household (income below Tk. 1500 month) which received only Tk. 12.27.

In the case of transfer (relief & subsidy), the former household received Tk. 493.17 as against Tk. 25.53 by the latter. Thus major beneficiaries of the subsidised agricultural inputs (e.g. irrigation equipment) have been the rural rich. While subsidies are being withdrawn from fertilizer, the rich continues to get benefits from higher subsidy given to irrigation equipment (who as waterlords also earn higher rents from land poor water users).

Even the WB Report confirms that: "while the poor constituted 52% of all households in FY 86, only 34% of public expenditures benefited households above the poverty line. Despite the rapid increase in current expenditures in recent years the social sectors and programmes that benefit the poor have remained underfunded because of inadequate prioritization in the use of resources. Most programmes that benefit the poor are financed largely from external resources while domestically mobilized revenues show little evidence of redistribution in favour of the poor. This indicates... weak linkages between government policy statements and the actual allocation of budgetary resources, poor implementation performance and inadequate domestic resources mobilisation to support major social sector programmes". [39;155-6].

### 3. STRATEGIES OF EMPOWERMENT

The draft Fourth Plan clearly identifies three major strategies for involving the poor and the disadvantaged in development and thereby empowering them. These are:

- i. Strategies for community participation through local level planning and resource mobilization [10; 1-14].
- ii. Strategies for community participation through NGOs. [10; 1-13].
- iii. Bringing women in the mainstream of development planning [10; 1-8].

These specific strategies have again been subsumed under the broad general strategy of 'integration of sector-based planning with socio-economic group based planning [10; 1-5]. This strategy aims at creating 'necessary conditions' 'so that the poor and the disadvantaged themselves are able to prepare projects for their own upliftment through proper

organization [10; 1-6]. This general strategy has not been developed overnight. There is a long history of grass-root cooperative organizations for rural development in Bangladesh and the present strategy is, in fact, an extension of this historically evolved policy intervention in the field of rural development. The previous plans too have pursued this strategy in one form or the other.

For our convenience, we would like to discuss about the strategies for people's empowerment in the following order:

- i. Grass-roots cooperative organizations for rural development.
- ii. decentralization for rural development.
- iii. mainstreaming women in development.
- iv. NGO model for rural development.

### *3.1 Cooperative Organizations*

Through the Fourth Plan underplays the role of cooperative organizations, the first and second plans did highlight them prominently as one of the major strategies of rural development for Bangladesh.

#### *3.1.1 The Comilla Model*

The first noteworthy experiment for rural development in Bangladesh was undertaken in the sixties by BARD under Akhter Hamid Khan's leadership in Comilla. This became wellknown as "Comilla Model". It had four constituent elements:

- establishment of a Training and Development Centre (TTDC) in every thana;
- a Rural Works Programme (RWP) for construction of road, drainage and embankment;
- a thana based decentralized small scale irrigation programme called Thana Irrigation Programme (TIP);
- a two-tier cooperative system under the Thana Central Cooperative Association (TCCA).

The Comilla model was, in fact, a blend of traditional and development institution. It tried to integrate law and order with development administration. A new tier of local government i.e. thana council (a precursor to present day Upazila Parishad) comprising of both official and elected representatives. The model also emphasized on integration of various components of rural development i.e. simultaneous development of physical infrastructure (roads), technical infrastructure (i.e., irrigation) and

social infrastructure (cooperatives). It did not opt for trained outside extension agents, rather used six types of change agents (e.g., manager of cooperative society, model farmer, accountant, teacher, women organizer and shop keeper) from within the village. This was done with a belief that villagers can solve their own problems. In order to increase their efficiency, a strong emphasis was given on their training at the TTDC. There was thus a clear shift from multi-tier traditional cooperative societies to single purpose two-tier cooperative. The traditional multipurpose cooperatives had the following weaknesses:

- i. These were too big, embracing as many as 10-15 villages and the group cohesion in them used to be very weak.
- ii. They were based on a wrong assumption of 'social harmony'. The rural Bangladesh was always torn apart in lines of economic conflicts.

The Comilla cooperatives were, therefore, developed as two-tier organizations. These organizations though encouraged thrift but expected public investments in the field of irrigation facilities, electrification, institutional credit etc.

Comilla model was later institutionalized as an Integrated Rural Development Programme (IRDP) and then as Bangladesh Rural Development Board (BRDB) and replicated nationwide.

The Comilla model though contributed to a significant rise in agricultural productivity in the Comilla region, pioneered irrigation technology for HYV cultivation, helped expand physical infrastructure, is still strongly criticized for its following limitations [16; 17-9].

- i. The localized increase in production may have been made possible due to heavy agricultural subsidisation.
- ii. The cooperative members are not necessarily more efficient than non-members.
- iii. The programme offer no direct relief for the landless except the trickle down effect of RWP and increased employment through HYV cultivation. But the negative impact brought in by greater inequality was no less alarming. Akhter Hamid Khan himself was no less concerned: "...better drainage, link roads and irrigation substantially enhanced the value of land and its rent. The unearned increment of the landowners was a hundred times more than the wages earned by the labourers [18; 151].
- iv. It ignored regional variations and the cooperation of small farmers

- (being majority in Comilla) was not suitable for other region.
- v. The two-tier cooperatives meant for primarily small farmers are now dominated by large farmers. It has become a 'closed club of Kulaks' [1; 197].
  - vi. Discipline has been vastly eroded in these cooperatives with no more regular savings, meetings audit. As a result, the recovery rate of credit disbursed is very low.
  - vii. It is hopelessly dependent on the government for survival and could not attain financial self-sufficiency despite liberal patronage from the public exchequer.
  - viii. The model is not viable. "The whole exercise constitutes a lesson in futility of cooperation in a situation of inequality [17;144].

Given the failure of Comilla model in addressing the issue of growing poverty and landlessness, a number of additions to the original programme plus some new experimentations became visible during the seventies and eighties. The separate landless societies (e.g. the Bittahen Samabaya Samity and Mahila Samabaya Samity) have been organized as an appendix to the two-tier cooperative system. However, the success of such societies has been very limited [5]. This was mostly because of bureaucratic hurdles, elements of tokenism involved and for being too much of a donor driven programme.

### *3.1.2. Deedar Cooperative Society*

Another experiment called 'Deedar Cooperative Society' located just within the periphery of BARD, based on the assumption of social harmony, though showed remarkable promises, could not be replicated for its inherent limitations. The success of the programme is attributed to:

- i. locational advantage
- ii. charismatic leadership of Mr. Yasin
- iii. the preponderance of non-farm residents
- iv. lavish patronage of Comilla Academy.

### *3.1.3 Grameen Bank*

Yet another experimentation deserves special emphasis, which though grew out of public auspices, now claims itself private initiative. Even though it has some similarities with NGOs, it does not want itself to be bracketed with them as well. It started as an action research project with the hypothesis that it is not risky to extend the normal banking facilities to the landless who cannot provide collateral for loan. This is known as Grameen

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Bank, an exclusive organization for the poor, mostly women.

There are two significant differences between the Grameen Bank and Comilla model: "First, the Grameen Bank bypasses the formal set-up cooperatives. This facilitates the operation of group activities without the encumbrances of a bureaucratic organization. Secondly, Comilla emphasizes continuous training and the integration of various components of rural development projects. The Grameen Bank concentrates only on the supply of credit. This singleness of purpose makes the operation of Grameen Bank much simpler. Despite these divergences, there is at bottom striking similarity between the two-tier Comilla model and the GB of small groups of like-minded people. However, a group in Grameen Bank Model consists of only closely supervised five members each. The experiments in Grameen Bank also showed that larger groups tend to lack discipline, and cannot stay together. All groups in a village are affiliated to a village centre. The village centres and groups are supervised by Bank Workers (BWs) of a GB branch" [16; 20-1].

So far GB has covered more than 17,746 villages serving as many as 7.7 lakh members, 90% of which are women (see Table 2). A number of evaluations have recorded success of GB in terms of high recovery rate, reaching the target group, improving the economic base including housing situation, nutritional status etc. [12, 13, 23, 25, 26, 27, 35].

Table-2: Grameen Bank: Coverage and Performance (as of July 31, 1990)

| Item   | Nos     | Item   | Million Taka | Million US \$ |
|--|---------|--|--------------|---------------|
| Number of branches   | 735     | 6 Cumulative amount disbursed                      | 8,149.89     | 254.68        |
| Number of villages   | 17,746  | 7 Amount disbursed during this month               | 227.98       | 7.12          |
| Number of centres  | 31,154  | 8 Cumulative amount of Housing Loans               | 716.76       | 22.40         |
| Number of Members  | 770,693 | 9 Housing Loans disbursed during this month        | 10.73        | 0.34          |
|  | (-)     | 10 Cumulative amount of savings in Group Fund      | 561.13       | 17.54         |
| Female   | 695,855 | 11 Balance of total savings (Excluding Group Fund) | 213.40       | 6.67          |
|  | (90.29) |  |              |               |
| Male   | 74,838  |  |              |               |
|  | (9.71)  |  |              |               |
| Cumulative number of houses built with Grameen housing loans | 82,474  | 12 Recovery rate                                   |              | 97.73%        |

Source: Grameen Bank.

However, these evaluations were done on field surveys carried out almost half a decade back and it will not be wise to be complacent with those findings at the present times when the programme has expanded significantly. One should not be surprised at the signs of bureaucratic tensions. Some lack of motivation among a section of the workers since the organization has already expanded beyond comprehension. As regards its impact on empowerment, there were initial signs of positive gains enabling the poor to bypass the traditional power structure [23]. This was possible due to Bank's initial emphasis given to raising of consciousness level of the poor, though indirectly. But with the expansion of the programme and increased emphasis given on its economic content (i.e. recovery of loans), the initial importance given to social development may have been on the wane. The mad race for loan disbursement and recovery and the alleged dichotomy in the incentive structure among the bank officials and workers may have affected the processes of empowerment witnessed earlier. There is no comprehensive evaluation on this interface of economic and social empowerment in GB programmes. The viability of the GB Deep Tube Well project, which made an attempt at confronting the traditional power structure to some extent is also in difficulty because of its operation problems, negative effect of withdrawal of subsidy from agricultural inputs by the government (which has made agriculture a non-profitable enterprise). The involvement of the poor too is quite marginal in this programme. The stray signals coming from different villages where GB is in operation, especially on the weakening of the social development programme, do not speak very high about the process of empowerment of the poor. Anyway time has not yet come for making definitive comments until one has looked into these issues more closely.

### *3.2 Decentralisation for Rural Development*

'Decentralized participatory planning would be the most critical input and as well as the output of the Fourth Five Year Plan' [10; 1-14]. The fourth plan envisages to: ".....organize the different socio-economic groups in the village in their own interest-cum functional groups, and would also like to integrate the activities of these various groups through a central village coordinating mechanism. The various village development programmes can on their turn, be integrated at the union level to prepare a Union Development Plan. The Union Development Plan can finally be integrated and coordinated at the upazila level" [10; 1-14].

The high hopes pinned on the performance of Upazila Parishads may not be realistic, especially for achieving the goal of empowerment of the poor. The poor have very little opportunities for effective participation in the decision-making process of Upazila Parishads. Bangladesh in the past experienced a plethora of decentralization experiments, with not much record of effective empowerment of the poor. Most of these decentralisation programmes were politicised by the ruling parties and 'the power that be for tiding over political exigencies. The model developed by one regime, was quickly changed without giving a fair trial. The district governor scheme and swanirvar Gram Sarkars are cases in point. This only proves that there is no ideological commitment of decentralization. As a result, there is no continuity in decentralization measures. Policies have been changed hastily and local institutions were often 'manipulated to create political base for authoritarian regimes at the top' [16; 39]. Such politicisation in turn proved legitimacy crisis in local institutions with every change of government.

Continuity of decentralization programme though may be necessary but not sufficient for empowerment of the majority. Most of the decentralization programmes were initiated from above and have always been controlled by local power elites. The present upazila system is no exception. However, given a fair trial, especially a fair election, the upazila system may yield some benefits for the poor if it can be made accountable to broad sections of the masses.

The present structure does not allow representation of various disadvantaged groups and is still dominated by bureaucratic and political elites who are closer to the interests of rich.

It was observed in a BIDS survey (1985) on 130 upazila chairman that: "they are comparatively younger in age, well educated, own large amount of land (73% of them more than 10 acres), have (also urban land, belong to higher brackets of income (groups), joined the ruling party changed parties for convenience, favour investment for infrastructure and social institutions rather than agricultural development per se and do not consider agricultural development as a priority area for intervention" [30; 149].

Simultaneously the system is totally depended on the central bureaucracy and its fate still looks uncertain given the partisan attitude towards it, especially after a sizeable number of opposition leaders have been elected as chairmen.

Most of the common people perceive them as 'dalals' (brokers) of the government in power and only an insignificant proportion of them think that they are true representatives of the people. Most of the chairmen have grabbed institutional rural credit meant for the farmers and their repayment performance is also the worst [2]. Even though a sizeable proportion of the current UZ chairmen belong to opposition political parties, they do not differ much in class terms either. When asked about what specific programmes they had for the development of their upazilas, most candidates (68% of 437 sample respondents) of 1989 UZ elections informed that they did not think about them. Only seventeen per cent of them had some special promises to make with the voters, but those were not necessarily concerned with poverty alleviation.

So they are nothing but local bases of the state who negotiate on behalf of the richer sections (irrespective of political affiliations) of the society with the centre, mainly for their own class interests. Common people, if not organized, can hardly share any benefits from the so-called decentralized planning. The upazila chairmen in the present set up are merely not separating the poor from outside world, even if some of them may not be individually corrupt. The system does not simply permit them to be otherwise.

### *3.3. NGO Strategy for Rural Development*

'The Fourth Five Year Plan recognizes the importance and contribution of all the different types of NGOs.....and seeks to utilize their services in a most cost-effective and coordinated way' [10; 1-13]. The Fourth Plan expects that NGOs would supplement government's main thrust towards decentralized participatory planning and they should 'aim at increasing the capability of the poor and the disadvantaged to save and invest over time so that NGO can gradually withdraw its activities from the concerned area at an early date' [10; 1-13].

The growth of NGOs has been, quite phenomenal in the eighties. While there were only 9 members listed in ADAB in 1973, the figure shot up to more than 700 by 1988 [37]. Despite this ever increasing coverage, the role of NGO in development is not yet that visible and not beyond 'suspicion' of academics, politicians and the bureaucrats. The major limitations of the NGOs have been succinctly summarized as follows by Khan in following terms: "First most of the NGOs are absolutely dependent on external assistance. The unbridled operation of NGOs may pose a serious threat to the political sovereignty of a country. Secondly, NGOs often

duplicate the activities of government agencies. There may, therefore, be unhealthy competition between NGOs and the government. Thirdly, NGOs very often undermine and subvert the programmes of the government. NGOs attract better personnel by providing higher emoluments and facilities. The government employees are often underpaid and there is unhealthy rivalry between the employees and the government. Fourthly, as self-governing institutions, the NGOs are responsible for themselves. There is no system of political accountability" [16; 35].

Despite these limitations, one cannot just write off the role of NGOs in development in Bangladesh. It is true that all NGOs cannot be equally successful (as is true for government organizations). But it is also true that many NGOs have demonstrated some successes in the field of devising a target group approach, in making poor bankable, the potentials using conscientization as a strategy for empowerment, appropriate technology and flexibility in management. However, these features of NGOs have been proved to be suitable only in a small geographical space. With no legitimacy and political leverage to their sides, there is still doubt about their acceptability as a new strategy for development. Though quite effective at the micro level, how far they can articulate their presence and views at the macro level is not yet clear.

The role of NGOs in empowerment has also been seriously questioned by radical academics [11]. While giving some credit for raising consciousness among the poor about some basic human needs they do not think NGOs have gone quite far in empowering the poor. According to one evaluator: "NGOs with their conscientization and consciousness raising efforts have been able to promote a greater awareness of health and nutritional issues. NGOs members, especially woman, have, because of their training, become more vocal and more assertive. However, their using of terms reflecting power of the poor should not be taken as symptomatic of a new grass-root awakening. NGOs have not identified either the ruling elite or the ruling ideology, let alone wage a struggle against either.....NGOs, by failing to posit the state in its analytical framework, actually fail to fight out against the real basis of oppression" [11; 77-8].

However, there are contrasting views as well. Reviewing the social mobilization activities of one NGO (GSS), one evaluator comments: "Over the past few years a fairly large scale organization of the rural poor has developed across the entire Tetulia upazila .....GSS has defined its role primarily as that of a catalytic agency, or an auxiliary force facilitating, supporting and promoting an organization of the poor—who are historically

condemned to take charge of their own development—economic, socio-cultural and political. Moreover, it must be mainly the onus of the rural poor themselves to buildup their own organization for their empowerment and emancipation" [34; 21].

The NGO concerned though has brought in its fold as many as about five thousand people in one upazila contested in the recent upazila election and bagged most of its votes from amongst its own rank and file, is still not an acceptable organization among larger number of landless labourers and other poor who are not its members. It is seen more as an 'externally promoted depoliticizing agency' by 'many politically conscious members of the public' [34; 33].

This is true for most other NGOs as well. It must be admitted that because of the proximity of most NGO leaders to unrepresentative regime and their 'leivish' life style, costly management practices and involvement of some NGO leaders with some controversial policy moves (e.g. the health policy) the NGOs are greatly suspected by academics and political leaders.

Despite these gaps, between big NGOs and political and academic quarters, smaller local NGOs, especially the ones fighting for human rights are gradually emerging as legitimate partners in fight for empowerment and human rights. One must add with them several professional organizations, as for example lawyers associations, women's groups, journalists' unions, the actors' association, which have been fighting hard to make legal guarantees of human rights enshrined in the constitution meaningful. There has not yet been much appreciation for the role of myriads of such peoples' voluntary organizations which are struggling to empower the people at the grass-roots level.

My own impression is that we have not always differentiated NGOs while criticising their role. The bureaucrats have successfully used this pitfall and created a gap between various groups fighting for empowerment of the people from various platforms.

It is in this context that there should be attempt bringing together as many networks of people as possible in the every struggle for establishing a just accountable society. Along one is quite vulnerable. But together people are much stronger and better off.

### *3.4 Mainstreaming Women in Development*

The draft fourth plan envisages to undertake special programmes for 'women on a priority basis in order to integrate them in the overall planning

process' [10; 1-8] . While an attempt at highlighting the women's role in development planning process is a welcome move, there is not enough matching efforts at implementing this objective in terms of actual projectisation and fund allocations.

In a recent paper one scholar has questioned the very premise upon which the mainstreaming of women in national planning has been espoused [21; 3]. The plan, according to Mahmud, apparently fails to address the issue from the social perspective: "Although the case can be made quite convincingly on economic grounds (and that seems to be the approach of the FFYP), it is much more difficult to make a case on equity grounds, where investments on women are justified as an inherently desirable goal, where the elimination of gender differentials in access to food, education, health care, employment opportunities, community participation, freedom of mobility etc. is seen as a fundamental objective to be achieved as a part of ensuring basic human rights" [21; 3].

Mahmud further elaborates on this.

1. The plan apparently has taken absolute position of women, and their relative position vis-a-vis men in the society, the community and the family levels and thus hides that the disadvantage of women is actually a process and not a condition.
2. Development programmes cannot be gender neutral and that men and women are impacted upon differently.
3. The idea of women belonging to a homogeneous functional group across socio-economic classes and that small farmers, fishermen and women are mutually exclusive groups is highly questionable. Both men and women can have small holder, fishing or irrigation groups.
4. The plan lacks commitment as such. Targets and financial allocations do not reflect the commitment made in the objectives sub-sections. There is no disaggregation of allocation genderwise at any level.
5. The implementation strategy does not also take up gender equity as a central concern. Nowhere constraints of mainstreaming of women in development are adequately spelt out.
6. The plan document is also not explicit about the monitoring and evaluation mechanism with regards to achievement of the objective of mainstreaming women in development.
7. It also lacks political will, courage, commitment, realism and action.

The statements make it abundantly clear how hollow are the planned objective of mainstreaming women in planning mechanism and thus empowering them.

The discussions made in the foregoing subsections focusing on planned strategies of cooperative organizations, decentralization, NGO model and mainstreaming women in development make it quite evident that the empowerment of the poor and the disadvantaged lack of conceptual rigour and realism in order to be effective. We will, now try to place these empirical findings in the context of a theoretical discussion focusing on empowerment and development.

#### 4. EMPOWERMENT AND DEVELOPMENT: A THEORETICAL LOOK

There is an element of patronisation in the term empowerment. Can people be empowered unless they empower themselves? The concept of empowerment, apparently has some similarity with modernization, a concept borrowed from the west. In the paradigm of modernization more and more representative and responsive political systems proceed step by step with stages of economic development: spread of commercialization, transformation of the traditional landed elite, growth of the middleclass, expansion of communications, urbanisation, secular values, rational behaviour, specialization and so forth [6; 210].

Popular sovereignty is equivalent to consumer sovereignty: free choice is exercised through electoral system. The free market is in command here. Empowerment is, therefore, equated here with consumer sovereignty.

However, the consumerist view on development cannot always capture the growth of poverty and the abundant human misery and the rise of repressive, authoritarian regimes which may result as by product of drive of modernization.

In reaction to these frustrations came the dependency theory. The crux of the theory is that development in the periphery is not autonomous, but is dependent on international capitalism. The underdevelopment in the Third World does not reflect a transitional stage towards modernisation but is conditioned by imperialism. Here clientist elites maintain local control in the service of their international masters. Democracy, even it exists, does not have power to transform the bonded economic system. The state, for its urge for legitimacy makes coalition with groups which are not interested in emerging as an entrepreneurial class. The people in general loose both economically and politically in the process.

But some people questioned this orthodoxy on the ground that there has been new international division of labour, multinationals are active all over the world, they are relocating capital and utilizing labour of the periphery for the consumption needs of a growing middle class. Some sectors based on elite demand may grow in such a set up but the home market cannot develop for shrinking purchasing power of the majority.

In reaction to this some scholars began to argue in hardcore Marxist terms that autonomous capitalism is possible even in third world country, the national bourgeoisie is possible even in Third World country, the national bourgeoisie may assert themselves and state intervention may be crucial. But variations in the development paradigm in the Third World combined with their poor economic performance cast doubt to the replication of western cycle of capitalism in these countries.

In reaction to the above, there may, in fact, emerge a developmental-authoritarian regime which considers democratic system a source instability and may impede long-term aspirations of the people. Social stability then becomes imperative for development.

But economic development creates new social forces strengthening the middle class, concentrating the working class, differentiating the peasantry. These new forces may not be always willing to be permanently excluded from structures of decision-making. During crises, these regimes tend to lose their performance legitimacy and those new forces may assert for empowerment. There are four types of social forces in such a society:

- i. Military and civil bureaucracy, who may be either neutral or hostile to democracy. If democracy does not interfere with so-called national management' i.e. does not challenge their power and privilege they will remain neutral. If not, they will be hostile.
- ii. The middle class, which may accept authoritarian rule for so-called 'social stability' (for safeguarding capitalist development) or may assert its autonomous interests through representative institutions, provided they feel confident that they can dominate them as well in a democratic set up.
- iii. Working class, which is either militant or moderate or marginal. If they can form a united front with peasants and middle class they can be militant. They can be moderate when in coalition with reformists belonging to middle class. They can be marginal once ineffective.

- iv. The peasantry, which is differentiated. Usually they remain marginal to state power, may even be eliminated as a social force if they cannot sustain (in coalition) as an interest group.

In most third world countries, including Bangladesh, the above scenario of relative positions of social forces prevail. The issues of empowerment has to be seen in the context of this comparative scenario. The power and privileges of the working class or the peasantry or for that matter middle class has to be located within a structure in which a regime is sustaining as per requirements of accumulation within the world market system.

The Bangladesh state is currently struggling hard to maintain the so called performance legitimacy. The civil and military bureaucracy have clearly taken side for such a state. The middle class is also supportive to such a state not only for so called social stability but also for the fact that they do not find any clear signal from the political elite about their possible dominance over the representative institutions as well.

The working class have become ineffective and opportunistic. Their leaders are behaving more as client elite rather than radical agents of change. The peasants have been completely marginalized. The state policies do hardly reflect the empowerment of the poor and the disadvantaged in such a situation. This is because the sustenance of the state is dependent more on so called management performance, and not on people's power.

The concept of empowerment does not, therefore, fit in squarely with the classical notions (either Weberian or Marxist) of power and has to be seen in the context of a state which is more authoritarian but disguised as developmental, not necessarily democratic. The vast majority of the people, by definition are, therefore, powerless within such a structural matrix.

#### 5. PEOPLE'S PERCEPTION OF EMPOWERMENTS

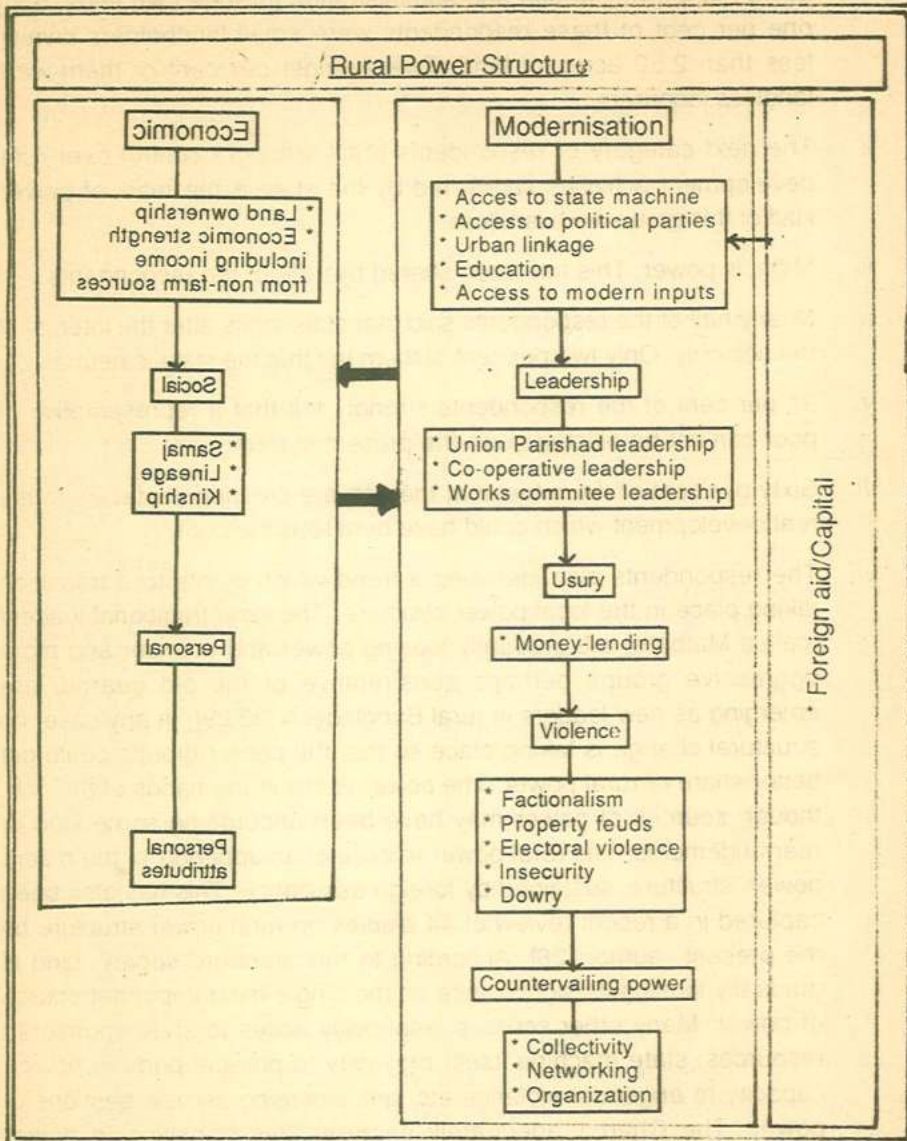
The concept of empowerment may get new dimensions if people are allowed to speak for themselves. The notion of power structure as perceived by the people may not correspond with what we as professionals try to articulate.

In the specific context of rural Bangladesh a cross section of 90 sample respondents perceived power in various ways depending on their own material positions [24].

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- i. Forty per cent of the respondents perceived power as the capacity of using manpower, wealth and administration for their own ends. Sixty one per cent of these respondents were small landholders owning less than 2.50 acres of land. Twenty eight per cent of them were landless labourers.
- ii. The next category of respondents (14%) thought control over rural development activities sponsored by the state is the mark of power. Half of this group were landless.
- iii. Might is power. This has been shared by 1.2% of the respondents.
- iv. Nearly half of the respondents said that state looks after the interest of the rich only. Only two per cent of them felt that the state is neutral.
- v. 91 per cent of the respondents strongly felt that a representative of poor can not be elected given the present system.
- vi. Sixty per cent of them feel that the rich are creating obstacles to the real development which could have benefited the poor.
- vii. The respondents also identified a trend which points to a transition taking place in the local power structure. The local traditional leaders (called Matbars) are gradually losing power and younger and more aggressive groups perhaps sons/relative of the old guards) are emerging as new leaders in rural Bangladesh [32,29]. In any case, no structural change is taking place so that the poorer groups could get better share of rural power. The power is still in the hands of the rich, though sources of power may have been undergoing some kind of rearrangements. The rural power is more of an appendix of the macro power structure, sustained by foreign assistance. This has also been captured in a recent review of 44 studies on rural power structure by the present author [26]. According to this literature survey, land is gradually losing its significance as the single most important source of power. Many other sources, especially access to state sponsored resources, state machine itself, proximity to political party in power, capacity to engender violence etc. are emerging as new bastions of power. The Chart-1 adequately captures this transition in power structure.

Chart 1:



Some government supported development policies, instead of empowering the rural poor, are in fact dislodging them from whatever security they used to command earlier. For example, Shrimp Culture in the

coastal area, actively supported by the government, while strengthened the hands of a few with strong commercial interests, has seriously affected the economic and social security of the poor. The Shrimp Culture is dominated by large farmers coming from outside (sometimes known as 'Gulshan' or 'Kulshi' peasants). They force the local people to lease out their lands at terms dictated by the former. The state, especially the police has been actively supporting this enclavisation of the coastal belt. The Shrimp Culture has created problems for raising livestock, goats and poultry birds as most grazing grounds are now under saline water. The trees and sources of drinking water too are being affected. The sources of fuel and fodder are getting squeezed gradually. The employment opportunities for the poor has declined and the violence is rampant in the locality. The security of women is in danger. The safety net provided by traditional structure is being gradually ruptured due to the presence of state and other outside interest. But the latter forces are not giving the poor any security. The net result has been a gradual loss of power, both economic and social from the poor. Government has only made limited intervention in the form of a Shrimp Culture Project, which too has not been entirely successful ensuring the interests of the poor.

Indeed the 'survival', 'Security' and 'self respect'—the three most important basic needs of the poor as theorised by Jodha [15] may very well be integrated with the concept of empowerment as perceived by them. Since their needs have been prioritised by the poor themselves, any constraint towards fulfilment of these needs may be interpreted as a sign of de-empowerment.

#### 6. SUMMARY AND CONCLUSION

In this paper we have tried to look into a number of issues relating to empowerment and development in the context of draft fourth five year plan. The discussions may now be briefly summarized in the following way:

1. Despite planned objective of poverty alleviation, the ugly faces of poverty are still glaringly visible.
2. The fourth plan has identified a number of strategies for empowerment of the poor and the disadvantaged. These include integration of sectoral planning with group based planning, decentralized planning, community participation through NGO approach and mainstreaming WID. The indepth scrutiny into each of these strategies does not leave much room for complacency. The effectiveness of these strategies in realizing the goals for which they were set is still questionable and in

the past the poor and the disadvantaged have hardly benefited out of these exercises.

3. The nature of the state dictates the relative positions of the pivotal social forces. While civil and military bureaucracy dominate the state for so called marginal performance, the middle class, which also include the politicians, behave opportunistically for their own interests. The working class and the peasantry are gradually becoming marginalized due to lack of coalitions between them and the militant segment of the middle class.
4. The perception of the people about empowerment broadly correspond to the above conclusions. The poor themselves think that benefits of the above strategies are primarily grabbed by the rich and the powerful. They also feel that the local power elites are but poor reflection of the greater power structure prevailing in the centre. The state itself mainly supported by foreign capital, nurtures this symbiotic power structure.
5. The poor are gradually losing grounds from the common property resources and their sources of vulnerabilities and deprivations are gradually increasing in number.
6. Given these grim realities, it is very difficult to become optimistic. What is needed is perhaps a self-development strategy as argued by Anisur Rahman [33], which negates consumerist view of development.

As distinct from conventional perceptions of professionals, popular perceptions of development emphasize the value of organic life with nature, standing up and moving forward in communal solidarity, in search for life and self-determination, and the primacy of human dignity [33].

This is called creativist view of development, which is nearer to Sen's concept of 'capabilities'. Sen is also more concerned with standard of living or positive freedom [36]. The emphasis here is on search for non-conventional resources for development, resources which evolve out of people's collective engagement for life. The non-conventional resources [22; 68] may include among others:

- i. Social awareness
- ii. Organizational know-how and managerial ability
- iii. Popular creativity
- iv. Solidarity and ability to provide mutual aid.
- v. Dedication and commitment from internal and external agents.
- vi. Pride in national history and struggles.

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These resources can only be appreciated by a political leadership which is involved in people's self-development activities long before the macro structural changes. Empowerment, in the ultimate analysis may be equated with the process of gaining control over those non-conventional resources. Only through such a control one can reduce vulnerabilities and expand options of life. A move towards that direction is indeed a step forward towards achievement of security of livelihood. This is again possible only when the people can find more collective spaces and come together in more numbers under horizontal organizations/networks. Organization is perhaps the greatest resource of the poor, mainly because it increases their capability of gaining more power, both economic and political. Empowerment is thus a process of breaking up of isolation and development of organizations.

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## FOCUSING ON THE RURAL POOR: THE CASE OF THE DRAFT FOURTH FIVE YEAR PLAN

BINAYAK SEN\*

### INTRODUCTION: THE PLAN AND THE RURAL POOR

The draft Fourth Five Year Plan envisages poverty alleviation as one of its main objectives. However, there is a conspicuous absence of analysis of trends in poverty, the profile of the poor, the causalities underlying the poverty process, specific objectives and special guidelines needed to address the issue of poverty alleviation for various sub-groups of the poor. The stunning lack of evidence on poverty situation in the draft plan is manifested both in its treatment of urban and rural poverty, and thus stands in sharp contrast to the stated intention of the Plan. The latter briefly mentions at one place that '51 per cent of the rural population and 65 per cent of urban population are poor' and further comments that 'during the early eighties the incidence of poverty seems to have declined' [14; 11-4]. The discourse on poverty in the Plan is restricted to these brief albeit unsubstantiated remarks, without providing the conceptual basis either for understanding the poverty process or for analysing the relative efficacies of the existing policy instruments designed to implement the strategy of poverty alleviation.

Yet another missing dimension of the plan document regarding the issue of poverty alleviation lies in the lack of transparency as to how the planned allocation of resources would make a dent on poverty. The Plan should clearly delineate allocation of resources and set specific programmes for the bottom 50% of the population. Towards that end, the Plan should clearly specify the position of the ten social groups (mentioned in the chapter on the macroeconomic framework for the Fourth Five Year Plan) with respect to income, employment, savings and consumption at the beginning and the terminal year.

In view of the aforementioned limitations of the plan exercise and keeping with the plan objective of poverty alleviation, an attempt has been made in the present paper to focus on the trends and issues relating to the

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\* Bangladesh Institute of Development Studies

rural poverty situation. A clearer understanding of the social profile of the rural poor, the emerging trends in rural poverty and the nature of state intervention in arresting the growth of poverty may provide the analytical basis for a comprehensive discussion on the monitoring of rural poverty and the policies to be adopted for implementing the strategy of poverty alleviation.

#### RURAL POVERTY: A BRIEF FACT-SHEET

Three aspects of the rural poverty situation constitute the focus of this section, namely, (1) income measures of poverty, (2) non-income measures of poverty and (3) the profile of the rural poor.

##### *1. Income Measures of Poverty*

The Household Income and Expenditure Surveys (HES) periodically carried out by the Bangladesh Bureau of Statistics (BBS) from the main source of information for most of the studies on rural poverty. Diversity in the methods of imputation, lack of panel data at household level, lack of uniform methods of recording data flow, lack of careful time sampling, short-fall of the memory recall method, the problem of 'missing cases', etc. are some of the limitations of these surveys. However, there is no disagreement that the quality of the 1983/84 and 1985/86 data are more reliable than the earlier years.

Gleaning through the studies on rural poverty carried out over that last decade, one comes across various estimates of poverty ratios. Most of the studies have used the head count ratio as measure of poverty. However, the discrepancies amongst the head count estimates recorded for the same year have been quite substantial. The variations in the estimates are attributable to differences in underlying assumptions relating to minimum calorie requirement for physical survival, items to be included in the minimum diet, prices to be used for costing of the minimum diet, etc. [10].

Given the limitations of the previous estimates on rural poverty, and in the face of difficulties in forming a clear idea about the trends in poverty from the existing studies using different methods of computation, the need for developing an alternative set of estimates on poverty ratios can hardly be exaggerated. To this end, an attempt has been made to re-calculate the poverty line for each of the successive observations for which the data are available, and to re-estimate on the basis the corresponding head count ratios and other poverty indices [11].

Operating within the limitations in the HES data source provided by the

BBS, and being restricted to the normative criterion of 'minimum consumption bundle' leading to bare physiological survival, a poverty line (expenditure level) has been computed on the basis of a minimum diet of 2112 kilo calories to which was added a 30% allowance for non-food diet basic needs. Prices to be used for costing the minimum diet are taken from the HES data itself. Information on per capita consumption of various food items and per capita expenditure actually incurred to procure these items are available for 4 years, namely, 1973/74, 1981/82, 1983/84 and 1985/86. Data relating to 1987/88 (a flood-affected year) have been used mainly to generate some idea on changes in poverty level in the late '80s. All the relevant information pertaining to 1987/88 has been called from the 62-village survey carried out by the BIDS in 1987 in connection with a Differential Impact Study of Agricultural Modernisation (henceforth, referred to as the DIS data).

Since a distribution of the rural population on a per capita scale would be more sensitive to changes in the level of absolute poverty vis-a-vis a distribution of population grouped on a 'per household' basis, head count ratios are computed on a per capita basis. Both expenditure and income classifications have been used to focus on underlying changes in the head count ratios since the mid '70s. It should be noted that, given the aforementioned limitations of the HES data provided by the BBS, we would be more concerned in this section with the broad directionality of changes in the absolute poverty level rather than to explain the quantitative fluctuations in the magnitude of absolute poverty recorded in the inter-temporal data.

Two trends have broadly emerged from this exercise. First, the percentage of rural population living absolute poverty appears to have declined during the period between the mid '70s and the mid '80s. Second, the subsequent movement of head count ratios, indicates that absolute poverty has increased in the late '80s almost to the level prevailing in the early '80s. It must however be remembered that 1987/88 and 1988/89 were two consecutive years severely affected by the flood. A sharp increase in absolute poverty since the mid '80s seems to be caused more by the natural shock rather than as an outcome of a structurally-determined dialectic leading to an intensified pauperisation process in the late '80s. If one consider both the series, the underlying trend seems to point to at least some modest decline in the head count ratio over the period between 1973/74 and 1987/88 (71% and 60%, respectively). This trend is also confirmed by a simple sensitivity analysis which attempts to

capture the impact of a certain (say, by 10%) reduction (or increase) of the estimated poverty line on changes in the level of absolute poverty.

The sensitivity test also points to another important feature of population distribution with implications for those subsisting marginally above and below the poverty line. A 10% increase (or decrease) in poverty line have resulted in fluctuations in absolute poverty level in a very similar manner, the fluctuations being restricted to a level of 5-10%. Hence, certain inter-year (as well as intra-year) fluctuations (increase or decrease) by a margin of 5-10% in the poverty level seems to be quite plausible depending on whether the point of observation falls under an agriculturally good year (season) or a bad year (season). If severe natural shocks such as the floods of 1987/88 and 1988/89 bring about a sharp (say, 20%) increase in the poverty line prevailing in 1985/86, the absolute poverty level may well rise by 10-20% which is to some extent being reflected in the DIS data on 1987/88. Yet another aspect which is implicitly hinted upon the sensitivity test would be to note a relative absence of a much wider band of a subgroup of the poor subsisting marginally above and below the poverty line. A 10% decrease in poverty line would have elevated only 6-10% of the below-poverty level population across the poverty line. It implies, therefore, that a significant degree of differentiation exists even within the ranks of the poor. A substantial proportion of the poor is located at the bottom end of the distribution scale relating to the population living poverty in contrast to their being situated in and around the poverty line.

Having established the broad trend line which shows at least a modest decline in absolute poverty upto the mid '80s the question that legitimately springs up is—whether this declining trend is a phenomenon entirely to be explained in terms of the situational context prevailing in the mid '80s or it can be dated back even to the late '70s? The estimates of Rahman and Haque implicitly suggest that absolute poverty has increased over the period between the mid '70s and the early '80s (from 65% in 1973/74 to 79% in 1981/82) [8]. The figures quoted by Hossain also indicate that absolute poverty has remained stagnated at a level of 77% within the same period [4; 1-23]. In the backdrop of these findings, the subsequent sharp decline (by almost 30 per cent) in the head count ratios over a period of two years between 1981/82 and 1983/84 has raised many controversies.

For the sake of comparability with the HES data for 1976/77, 1977/78 and 1978/89 which give only population distribution according to 'per household classification, the head count ratios relating to other points of

observation have also been re-calculated on a 'per household' scale. Our estimates show that absolute poverty, as per expenditure classification, has increased sharply from 60% in 1973/74 to 79% 1976/77 (following a famine year of 1974/75) and remained stagnant at 7% upto 1977/78. A clear downturn in the level of absolute poverty is discernible only by 1978/79 at which point the head count ratio is assessed at 65%. Since 1978/79 the head count ratio has declined steadily upto 1985/86. Hence, a decline in poverty can not be seen as an exclusive phenomenon of the mid '80s; its origin clearly dates back to the late '70s thus demanding a fresh look at the debate centering around rural poverty in the recent years.

Available data do not allow us to cast any definitive light on the recent trends in absolute poverty, during the post-flood years. The BBS is at present processing the HES data for 1988/89 which was again a flood year. Preliminary impressions are that the head count ratio for the year 1988/89 as per the HES data generated by the BBS would show a noticeable rise in absolute poverty compared to the level prevailing in 1985/86 mainly due to the adverse impact of the disastrous flood of 1988. The BIDS has just completed a resurvey of the previously mentioned 62-villages which essentially captures the profile of the households during the period between June 1989 and May 1990. The data of this large-scale survey are yet to be processed and, until such times, it would be very difficult to clearly foresee the trend in rural absolute poverty over the last couple of (flood-free) years.

So far we have focused only on the trends in absolute poverty as revealed by the changes in the level of head count ratios. The head count measure, however, is insensitive to changes in absolute level of deprivation as well as distributional changes (and inequalities) among the various sub-groups of the poor.

Our estimates show that changes in other poverty indices broadly correspond to the trend recorded earlier with respect to the movement in the head count ratios. The poverty-gap ratio has steadily declined from 0.36 in 1973/74 to 0.22 in 1985/86 and then jumped to 0.39 during the flood-year of 1987/88. Inequality of income among the poor ( $G^*$ ) has also declined during the period between 1973/74 and 1985/86 (from about 0.163 to 0.103) indicating that a decline in absolute poverty level was accompanied by a gradual reduction in the level of inequality amongst the poor. However, this impact was not sustainable in agriculturally bad years. The vulnerability of the poor to natural shocks is particularly evidenced in

### *Sen : Rural Poor*

the sharp rise of inequality amongst the poor in 1987/88, the matched figure for that year being 0.20. Both the Sen's index of poverty (Ps) and its modified form as suggested by Kakwani (i.e. P.<sub>1</sub> which takes into account the inequality amongst the poor) have confirmed the above trend. However, compared to the level prevailing in 1973/74, both Sen's index and Kakwani's index of poverty appear to suggest a slight reduction in poverty by 1987/88 (the matched figures being 0.33 and 0.31 according to Sen's index, and 0.37 and 0.30 as per Kakwani's index).

Kakwani's general index of poverty (P) which does not take into account inequality amongst the poor has registered a decline from 0.28 in 1973/74 to 0.23 in 1987/88. The trend indicates that, in normal years such as 1983/84 and 1985/86, about 7-12 per cent of the aggregate rural income needs to be redistributed from the non-poor segment of the population to those remaining below the poverty line in order to elevate the latter to just above the poverty line. In an abnormal year such as 1987/88, however, the proportion of rural income to be re-distributed from the non-poor to the poor increases to 23 per cent. This underscores the need for undertaking various targeted (including direct income transfer) programmes for the rural poor during the years characterised by natural shocks since market-based trickle down alternatives for enforcing a massive re-distribution programme in the crisis prone years would be severely limited.

Income measures of poverty, however useful it may be in capturing the trends in absolute poverty, can not substitute a multi-dimensional approach which would take into account both income and non-income dimensions of poverty. Indeed one of the major issues that informs the discourse on poverty in the recent years is whether poverty can be best captured by defining it mainly as a uni-dimensional phenomenon or poverty should be viewed primarily as a complex multi-dimensional process. The multi-dimensional approach would lead to a range of quality of life variables such as health and sanitation, housing, access to state distribution system, crisis-coping capacity, personal security, etc. While detail data on each of these items are currently lacking, some indicative observations on several items relating to social security, welfare and the living standard would be in order.

### *2. Non-income Measures of Poverty*

The HES data provided by the BBS do not adequately address various non-income dimensions of poverty. With a view to achieving a more informed analysis of the poverty scene, a repeat survey of 62 villages (identified earlier as part of an earlier study on the differential impact of

agricultural modernization) has been undertaken by the BIDS over November 1989-February 1990. The repeat survey has attempted to generate data on various qualitative dimensions of poverty, some of which are discussed below.

The housing status is one living standard indicator which is highly sensitive to the gradation of poverty. The aforementioned survey also provides the distribution of rural household disaggregated by 5 housing categories (i) 'jhupri', i.e. matchbox-type houses made of leaves, (ii) 'single structure' houses, (iii) houses with one plus structures with 'thatch' roofs' (iv) 'semi-durable' house-structure with one plus rooms and (v) 'durable' house-structure with one plus rooms. If one combines together the three categories at the lower end of the housing scale (i.e., 'jhupri', 'single structure' and 'thatch and 1+ structure'), the share of the vulnerable segment of the rural population would constitute about 60% of the rural households. In addition to this, the housing indicator identifies two further levels of differentiation. 'Jhupri' and 'single structure' categories together represent 32 per cent of the rural households and possibly capture the 'hard-core poor' (or 'ultra-poor') group within the broader ranks of the absolute poor households. If one concentrates on the 'jhupri' category only, then one can identify an even more extreme level of vulnerability: about one-tenth of the households possibly represent a floating rural underclass [9].

With respect to clothing, which is usually mentioned right after food in any listing of basic needs, Abdulla et. al. has observed the annual per capita availability of cotton textiles per head of population appears to have been broadly stagnant since liberation [1]. The annual per capita cloth availability on a national scale, including non-cotton and second-hand clothes, was about 9.96 yards in 1986/87. The matched figure for the rural areas, however, is not available. Some indication of the inequality in the distribution of cloth availability may be obtained from the BIDS survey. The survey shows that, during 1989/90, 17 per cent of household did not own a minimum of two pieces of the most common apparel for their adult members (lungi for men and saree for women) while 24 per cent did not have any winter clothing [9].

As regards the health and sanitary conditions, the situation appears to be precarious across the board. The BBS figure for 1982 previously indicated that 54 per cent of the rural households did not have access to toilet facilities [2; 95]. The situation seems to have only marginally improved

by 1989/90, the matched figure having slightly declined to 44 per cent. The BIDS survey also provides information on types of medicare enjoyed by the rural population in 1989/90. Only 13 per cent of the rural patients have received assistance from the public health services and this indicator shows little variations across the surplus/deficit categories, thereby indicating limited access of the rural sector as a whole to the existing network of public health security. The 'self-sufficient' and 'surplus' categories, however, have the resources to pay for the medical services available from the qualified private doctors. The proportion of the rural patients receiving medical assistance from the qualified private doctors monotonically increases from about 18 per cent in case of 'chronic deficit' households to 41 per cent recorded for the 'surplus' households. Due to resource scarcity and limited health awareness, the deficit households tend to rely more on the indigenous methods of treatment vis-a-vis the more affluent sections of the rural society (the matched figures for 'chronic deficit' and 'surplus' categories being 66 per cent and 43 per cent, respectively).

With respect to health and sanitary facilities, quite a noticeable improvement has been recorded in respect of availability of safe drinking facilities in the rural areas. According to the BBS data, about 53% of rural households reported tubewells as their drinking water source in 1981 [2; 95]. The corresponding figure for the 1989-90 survey is 87 per cent.

Available data also suggest limited access of the rural population to education. Abdullah et. al. for instance, observed that 32,000 villages (i.e. nearly one half of the total villages) do not have even a single school, even though on the average there is nearly one school per square mile [1]. Yet another evidence suggests that government expenditure and subsidy per student at the primary level is restricted to less than 2 per cent of the matched figure for the university level [6; 142]. Above 46 per cent of children of primary school going age do not attend school---23 per cent do not attend at all and an equal proportion drop out from the system [1;28]. However, these figures conceal sharp differentiation within the rural community in respect of access to education, the rural poor being the most hard-hit group. To a large extent, this differentiation is reflected in the pattern of allocation of public expenditures on education. As has been pointed out by a recent World Bank study, gross benefits of education expenditure largely accrue to the non-poor (i.e. households with monthly income above Taka 2000 in 1985/86 as per the Bank Classification) while benefits to the poor are substantially below the mean expenditure [12; 37]. This trend has been evidenced in the pattern of current public expenditure

for human resource development as well. For instance, an average poor household (monthly income below Taka 2000) received Taka 190 on account of current public expenditures allocated for human resources development vis-a-vis Taka 783 by an average non-poor household during 1985/86 [7; 7-8]. Indeed most programmes that benefit the rural poor are underwritten largely by the external resources while domestically mobilised revenues show little evidence of re-distribution in favour of the rural poor.

### *3. The Profile of the Rural Poor*

It is important not only to examine the trends in rural poverty, but also to address the issue as to who constitute the rural poor. The cross-sectional data base of the 62-village survey carried out by the BIDS during 1987/88 and 1989/90 forms the major source of information on the profile of the rural poor.<sup>12</sup> Since the rural poor by itself is a differentiated community, two broad categories of the poor households have been identified: (i) extreme poor households whose average income constitutes 60 per cent (or less) of the poverty line income; (ii) moderately poor households whose average income falls in the range of 60-100 per cent of the poverty line income. The estimated poverty line income (expenditure) for 1987/88 was about Taka 4300 per person per year. These two categories are then contrasted to the non-poor emerge from this exercise.

Landless and functionally landless households represent 69 per cent of the 'deficit' households while marginal and small farmers together make up an additional 31 per cent. This indicates that most of the deficit households (i.e. 90 per cent) are located in the land-poor category. Due to resource scarcity, the spread of new seed-fertiliser-irrigation technology is comparatively low for the extreme and moderately poor categories compared to the non-poor group. The rate of adoption of modern variety rice expressed as per cent of total cultivated area is 31 per cent for the extreme poor and 45 per cent with respect to the non-poor. Similarly, the share of irrigated area steadily increases from about 24 per cent for the extreme poor to 26 per cent in case of the moderately poor, rising further to 35 per cent in the non-poor category.

Limited access of the poor to the land sector and to the agricultural new technology is further exacerbated by some adverse implications of the demographic processes that tend to characterise the poor households as distinct from the non-poor households. The extreme and moderately poor households are found to have larger family size, greater child-women ratio, lower male labour force ratio compared to the non-poor households. For

instance, per cent of adult male (16 years and above) is only 24 per cent for the extreme poor vis-a-vis 33 per cent in case of the non-poor. The same is true for the indicator which shows the proportion of the male members above age 10. Thus, potential earning capacities of the poor households may be limited even if only due to the relatively low proportion of male earning members compared to the non-poor group. The aggregate impact of these demographic indicators would be to increase the vulnerability of the poor households with higher risks for malnutrition, child mortality and reduced income earning capacities. The share of female-headed households appears to be relatively high in the extreme poor group compared to the non-poor group which would imply a greater incidence of gender insecurity for the poor vis-a-vis the non-poor.

Education is yet another means by way of which the rural poor can aspire to achieve a higher social mobility and ensure greater access to income earning opportunities. The actual achievement of the poor in this respect has not been compensatory either. The respective shares of male students in age group 6-15 is 53 per cent and 70 per cent for the extreme poor and the non-poor, respectively. The matched figure for female students in the same age group is also lower for the extreme poor vis-a-vis the non-poor (43 per cent vis-a-vis 62 per cent).

We have already noted that the poor households are characterised by a lower proportion of adult male members vis-a-vis the non-poor group. The education status indicator identifies further yet another level of vulnerability of the poor. The share of illiterates in the total adult members is 47 per cent for the non-poor group but rises sharply to 86 per cent with respect to the extreme poor group. Amongst the literate adult members of the poor households, only a few could receive higher education (about 10 per cent in case of the extreme poor vis-a-vis 25 per cent recorded for the non poor group.)

Limited access to land, new agricultural technology and education accompanied by adverse demographic processes lead to limited earning capacities of the poor in various markets. Thus average per capita annual income of the extreme poor is only 50 per cent of the matched figure for the moderately poor indicating a sharp degree of differentiation within the broader ranks of the poor. The average income of the extreme poor category, on a per capita basis, constitutes only 22 per cent of the annual per capita income received by the non-poor group. The survey further shows that the share of non-agricultural income in total household income

is substantially higher for the non-poor category compared to the extreme poor (42 per cent as against 34 per cent). This is explained by the relatively high access of the non-poor to trade, services, rural industry and remittances sectors vis-a-vis the poor.

So far we have discussed some key features of rural poverty situation. Despite some modest decline in absolute poverty level, the overall magnitude of rural poverty (specially, that of the 'hardcore' poverty) remains very high and substantially exceeds the matched figures for most of the developing countries in Asia and Africa. This underscores the need for undertaking on the part of the state a comprehensive strategy for poverty alleviation. To this issue, we shall now turn.

#### RURAL POVERTY ALLEVIATION AND STATE

Three major avenues for poverty alleviation may be identified in the plan efforts over the last two decades: (i) poverty alleviation through fostering a higher growth process by way of complex interplay of macroeconomic policy instruments suitably attuned to sustain a reasonable growth in incomes of the rural poor (the so-called 'trickle-down' effects mainly captured in income-measures of poverty); (ii) poverty alleviation through enforcing higher investment in social sectors leading to enhanced human capital formation and improved living standard indicators (the so-called 'non-income' measures of poverty); (iii) poverty alleviation through promoting targeted income and employment generating programmes designed to provide support to the extremely vulnerable segment of the rural poor who may have been otherwise left out from the mainstream of market-based routinised development process. These three elements of an integrated poverty alleviation strategy constitute analytically meaningful reference points in the discourse on rural poverty. Poverty dynamics in rural Bangladesh over the eighties may be critically reviewed by operating within the perspectives of the above delineated framework. While detailed data base for estimating the relative contribution of each of these factors to poverty alleviation is currently lacking, some indicative observations pertaining to their relative merits would be in order.

First, with respect to anti-poverty effects of a sustainable higher growth, it is crucially important to demarcate the role of the state in growth processes 'from above' (mediated through its macroeconomic policy instruments) from the growth processes which are attributable mainly to the people's own initiatives 'from below'. Despite the limitations in the HES, the broad trend that emerges from the intertemporal data suggests some

modest decline in income measures of poverty between the mid '70s and the mid '80s (before the onslaughts of the floods over two consecutive years in 1987/88 and 1988/89). The relevant question that springs up here is-should one view this decline in rural absolute poverty as being mainly an outcome of the complex interplay of macroeconomic policy instruments pursued by the state? Macro-economic growth indicators provided by the national accounts data, which show a deteriorating trend in growth performance, do not seem to provide any direct evidence in support of state policy induced poverty reduction. Overall economic growth decelerated from about 5.8% per annum achieved in the FY 73-80 period to 4% p.a. during the FY 81-86 period, while the matched figures for the agriculture sector are 3.5% and 2.9%, respectively [13; 10]. On the contrary, some of the policy measures such as withdrawal of subsidies from agricultural inputs, tightening of formal credit market advances to the agricultural sector have clearly whittled away some of the benefits accruing to the small and medium farmers from the adoption of new seed-fertilizer-irrigation technology and acted as constraints to further spread of the new technology in agriculture.

Indeed, one may argue that whatever growth rates that have been achieved upto the mid '80s were largely attributable to the survival efforts of the rural poor themselves. The national accounts data on various growth variables have largely failed to measure the contributions of the peoples' initiatives 'from below' to the growth processes, contributions that would otherwise fall under the head of 'informal' sectors and as such, remain virtually underestimated and unregistered in national accounts statistics. One may cite here the lack of relevant data on informal sector dynamism relating to both rural and urban areas as a consequence of which the figures on private investment, value added and employment underrate the true economic performance. While the growth rate in household per capita income calculated as per HES data remains on the high side, it is equally true that the national accounts figure of per capita GNP is under-estimated because of inadequate benchmarks used in the national accounting.

However, as noted earlier, the overall growth rate of the economy stands far from satisfactory and would remain so even if one takes into consideration the full measure of the contribution of the hitherto unaccounted for informal sector to GDP. One should, therefore, plan for a faster rate of economic growth in order to achieve any noticeable progress in poverty alleviation. It may be mentioned that the draft Fourth Plan has set a target for annual growth of national income at 5.0 per cent which roughly

corresponds to the growth rate already achieved during FY 90 [13; 6]. Given the existing pattern of distribution of assets and opportunities, this rate of growth can make only a marginal impact on alleviation of poverty.

Second, a modest decline in terms of income measures of poverty does not necessarily lead to a *prima facie* reduction of vulnerability of the rural poor. The latter is manifested in various dimensions. To cite a few examples, one may note the sharp increase in the income measures of poverty during the flood-affected years. Vulnerability of the poor is also expressed in the eroding base of crisis-coping capacity (i.e. the capacity to withstand unpredictable 'shocks' such as natural calamities as well as sickness, diseases, deaths of some household members, etc.) on the part of rural poor households. Yet another important dimension of vulnerability of the poor lies in the precarious situation in which they find themselves in the social sectors. The relevance of non-income dimensions of poverty such as access to education, health and sanitary facilities, cultural spaces, etc. becomes apparent at this juncture. Since these services can not be obtained through individual efforts only, the access to state provision for social sector services becomes crucially important determinant of the living standard indicators of the rural poor. The overall state allocation for the social sectors, falls far short of the desired level. On top of that, the access to the existing social sector network is unequally distributed, the rural poor being the most hard-hit group.

Another important point to be noted here is that not only has the state not been much successful in channeling resources to the rural poor, the very institutional processes by way of which the state aspires to promote its annual development programmes, have not been able to support the people's developmentalist initiatives, at local level. Indeed, the state processes have often exerted a kind of disorganising influences on such initiatives of the people 'from below' even when they attempt to organise themselves on their own rights. There are numerous examples of disorganising influences of the state machinery on such 'self-help' drives of the people 'from below' whereby they have aspired to undertake collective actions to cope with sudden natural calamities, deteriorating law and order situation in the rural areas or, for that matter, to introduce new pattern of agricultural practices as have been observed during the post-flood years [3].

Third, the situation with respect to the hardcore poor remains extremely vulnerable. About one-fourth of the rural households fall into the category of hardcore poverty who lack land as well as non-land assets [9;67]. The

scope of self-employment thus appears to be severely limited in case of the hardcore poor. This leads to their increased dependence on multiple occupations which, in effect, demonstrates their greater vulnerability and insecurity in the labour market. The aggregate income earned by multiple occupations, however, is quite inadequate to ensure the mobility of the hardcore poor along the social ladder. It is difficult to project any growth-induced trickle-down programme for the hardcore poor segment of the rural population. Social security programmes designed to eradicate severe malnutrition and poverty, seems to be in order in this case. Such income-transfer programmes for the bottom 25% of the rural population would require significant commitment of the government budget to poverty alleviation programmes.

Fourth, the essential political lesson learnt by the state from the catastrophic 1974 famines led to the growing compulsion for undertaking various targeted programmes designed to sustain the entitlements of the poor at a level so as to prevent any famine syndrome. These included, among others, policies related to the stabilization of the foodgrain prices at a reasonable level, various income transfer programmes such as reliefs, employment generating targeted programmes in the lean seasons such as Food for-Works (FFW), Vulnerable Group Development (VGD) for rural destitute women, post-monsoon works programmes etc. To this list one may add various non-farm sectors oriented targeted self-employment programmes run by both the GOs and the NGOs in the rural sector which encompass, under various assumptions, about 10-20% of the landless and functionally landless households. The aggregate impact of these targeted programmes has been beneficial to the rural poor and imparted some stability to the latter amidst the pauperisation process. Growing inefficiency in the overall macroeconomic management of the economy is thus being contrasted to a relatively successful crisis-coping performance of the Bangladeshi state. Such are the terms on which poverty alleviation strategy of the government appears to rest in to-day's Bangladesh.

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## NGO AS A DEVELOPMENT AGENT

MUZAFFER AHMAD\*

The role of private voluntary organisation in community work is not a new phenomenon in this part of the world. This is possibly as old as our culture and civilisation. But NGOs have claimed a recognition in the development planning and process for the first time. The Fourth Five-Year Plan has accorded this recognition. This has been prompted by the donors who highlighted the inefficiency of governmental organisations in undertaking the grassroot level development work effectively, despite long tradition of rural works programme, food for works programme and IRD co-operatives.

Since liberation the invasion of foreign NGOs, foreign aided NGOs of Joint venture type, foreign fund dependent local NGOs and purely local NGOs have been active in Bangladesh. However, attention has been drawn to the first three. The NGOs are active in various sectors (health, education, agriculture handicrafts etc.) and in various geographical areas. No meaningful consolidated report on the activities of NGOs is available. Their management and financial information beyond the aggregates seem to be unavailable to researchers or independent evaluators even for those organizations which have gained international acclaim and whose originators have been honoured internationally.

The problem that the national planners face in a mixed economy is that the problems of integrating unpredictable private sector investment activities is equally present with respect to NGOs. The four plans during Pakistan period and four plans during Bangladesh regime have not adequately integrated private sector except for certain guesses about investment and certain pronouncement of policies with respect to incentives or regulations. NGOs now would add another dimension. India's seventh plan recognised similarly the role of NGOs without being specific about their role and objectives.

The participation of people in development process has been recognized as essential. This was well-articulated in all the plans since 1972. Community endeavour through group activities in rural areas were

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\* Professor, Institute of Business Administration, University of Dhaka.

considered to be a necessary condition for poverty alleviation at least since the days of Comilla experiment, later reinforced by Ulashi Jadunathpur and Swanivar, Grameen Bank, BRAC etc.

The studies that analysed why participation of poor has remained constrained, mention structural and administrative factors as the most pertinent ones. In a stratified society where few individual control resources, power, decision making, the NGOs (also local level planning) only strengthens traditional rural power elite. Our experience with Basic Democracy and Union Councils or zilla Parishid are good examples. The national administration views projects for eradication of poverty in a mechanical way involving generation of statistics to prove their success, as a result they try to dictate or sell a programme to NGOs with promises of support and fund, this means continuation of trickle down process in a different grab. Even when target group approach is accepted, no provision for vertical or horizontal links are adequately provided. These studies also found that economically homogeneous few small groups voluntarily linked by traditional ties in a fully participatory system have succeeded in generating development momentum.

It is to be recalled that OECD studies found in 1986 that as much as \$ 4.8 billion pass through the developed country NGOs to the developing countries. In Canada this is 12% of CIDA assistance and another 10% comes from private sector. This increasing support has less to do with "unique contributions" to development by NGOs and more with "disillusionment" with ODA assistance through government. Are NGOs more efficient conduit for development inputs? The NGOs' less bureaucratic nature and more dialogue with donors may indeed be the other side of their 'lack of professionalism' and developmental actions. There is a real apprehension that on a long-term basis and measured in terms of sustained allocative and x-efficiency, NGOs do not and have not performed as well as they are said to be capable of.

The NGOs have changed their role over the years. It is said initially they start as provider of relief and welfare to the poor. As they mature the role is changed to provision of support, advice and 'some' input for self-help group. Finally, they work as catalysts only. In Bangladesh, two decades of NGO activity has seen very few to mature into the second stage. Further, NGOs claim to perform not only input-support function for designed, structured and stylised programme but also to create consciousness amongst the beneficiaries and to lobby for appropriate policy to benefit the

target group. The experience of Bangladesh suggest success in programme delivery by the foreign NGOs and some foreign aided NGOs but this has generally been expensive as real resource transfer as percentage of total cost has been relatively small. The conscientisation function has been performed by the notable ones but the nature and success of this function has been varied. The advocacy function seem to have worked better with donors than the Government who seem to be eager to use the opportunity for their own political gain through centralised control. The Government seem to oppose the rise of any genuine local NGO endeavour.

It is known that NGOs in donor countries suffer from tension surrounding fund raising activities. The inclusion of NGOs in the developemnt plan may relieve some of these tensions. It is to be noted that NGOs have become more active in the face of privatisation process. Private initiative was ever denied a role in the small scale operations where NGOs mainly act. NGO experience has pointed out to the basic fact of LDCs that goods and services need be produced and distributed according to criteria other than profitability. In the context of privatisation NGOs, if expected to help growth of indigenous entrepreneurs, then the focus of function would become one of promoting 'normal' private sector initiative. Bangladesh has seen such endeavours. But mixing entrepreneurship with NGO activity seem to have resulted in the contradiction of re-enforcing the vested interest group vinstead helping the deprived poor people. Further, NGO sector by nature has to be loosely structured. FAO study have shown that many interesting and innovative NGO projects have failed because "they were conceived and developed outside the context of any overall" national development strategy. Thus the NGOs face a dilemma of contradiction between informal character and 'integration' into formal national strategy. The co-ordination amongst free-flying NGOs is a necessity as they may generate contradictory pulls through different programmes in the same locality. The institutionalisation of such coordination mechanism is likely to rob the NGOs of their flexibility and innovative character.

A study of NGOs of US origin indicate that they are so varied with respect to origin, function and constituency that they defy generalisation. They are largely dependent on private unrestricted financial support and persue their own vision / mission, but they rarely fulfil their potential in their programme work. Their quest for more and more project implementation for donors erode them of independence and integrity and reduce their

effectiveness as bridges and catalysts for genuine and lasting effects through education and advocacy. The fourth plan's integration of NGOs into the planning effort at the behest of the donors carry this germ of changing, the role of NGOs to 'Project Managers

It may be interesting to recall experience of Latin America with respect to NGOs. In that continent NGOs work is based on social, political and economic context of the countries. These NGOs were motivated by developmentalist ideology and they grew under authoritarian regimes. NGOs, though initially adopted welfare approach and later in the face of industrialisation adopted a developmental approach for promoting better living through productive work and education, their commitment to civil society and particularly the lower income group compelled them to turn their backs to the authoritarian state and they sheltered a set of social initiatives linked to the grassroots which helped the regeneration of body politic that stood for equity, access, autonomy and democracy. This support to civil resistance was basic in the structural social transformation and pursuit of citizens rights. The NGOs in Bangladesh have not yet demonstrated any visible identity with civil society and their dependence on the state and the donors seem to inhibit this possibility. It can then be hypothesised that NGOs of Bangladesh today would not contribute to structural transformation of the society in any meaningful way.

Another example of NGO may be recalled. The indigenous NGO of Zimbabwe (ORAP) was created during their independence struggle when they realised that political resistance for independence would come when people are mobilised through conscious political and economic understanding which works for meaningful change for progress involving the poor in the change. They clearly stated that no nation can develop by projects alone or through borrowed models. The nation becomes liberated when the common man is aware of the forces which oppress or exploit them and mobilise them to deal with these forces. Without such an understanding at the grassroot level the corrosive process of underdevelopment continues. Without stimulating aspirations for self-reliance through formation of rural groups of the oppressed for articulating developmental needs and priorities, the dependence on national elite and their control would continue. If this is properly done then village level organisations emerge as countervailing power to national government and only then the latter would be willing to make partnership meaningful rather than treating them as appendages for patronage. The question in the

context of Bangladesh is will the NGOs undertake such a function and will the non-legitimate authoritarian power at the national level allow them to grow into that kind of organisation?

It has now been widely recognised that material deprivation is only the visible portion of poverty, it is the loss of freedom and self-respect that is more fundamental and basic. Humiliating subservience is difficult to quantify. This income generating approach to alleviate poverty, which most NGOs follow, can only deal with starvation and hunger. Such an approach has constrained the thinking of professionals who wish to work through NGOs and create opportunities for such NGO work. These NGO professionals overlook complete dimensions of deprivations which are produced by structural hegemony, domination and oppression. This is manifested in political powerlessness (e.g. inability to stop vote rigging of the elite), cultural helplessness (e.g. invasion of antithetical programmes in media) and spiritual despair (e.g. submission to fatalism through institutionalized religious bigotry). Such a situation, as is prevailing in Bangladesh is the outcome of the complex interplay of downward directed knowledge-power factors where normative codes and religious values are used to legitimise control of resources and exploitative behaviour of the dominating class.

The concept of development as manifested in development plans is essentially economic in nature, and it emphasises mobilisation of savings, generation of surplus, accumulation of capital, technological change and change in economic structure. These macro-parameters have counterparts in micro-operations of the NGOs. The change from backwardness, underdevelopment and superstitious value system to modernisation, development and rationality is conditioned by internalisation of western values and western economic system wherein money, material, market and technology booms large. Such ruthless acceptance of a materialistic approach to development in the garb of goal-purposiveness based on rationality defined in terms of exchange values creates exclusive social closure which allow dominant groups better access to productive resources and create condition for downward directed knowledge factor, even through NGOs, not to speak of governmental organisations, based on deprivation and degradation for the majority. The Bangladesh NGOs have not been able to change this trend, singularly or collectively.

The basic logic of unequal exchange and inequitable development have been recognized but not acted upon. As a result the development process

in many countries including Bangladesh has given rise to a new rent-seeking class (even within NGOs) who in turn obstruct people-propelled reforms through palliative actions as that would require restructuring of the society for the greatest good for the greatest number. The target group project/Programme approach of NGOs are inadequate and pejorative as pigeonholing of development process fails to generate the necessary dynamics for social and economic structural adjustment. The external stimuli and exclusionary process of development has basically increased dependence of the NGOs.

Recently a critique of NGOs in Bangladesh has been written by Dr. Abecassis. He views development as an essential task of human development where material development is a consequence or at best helpful agent for development efforts. This view of development shifts the emphasis from capital and natural resource to man himself. In understanding man in his environment, one has to understand his identity and world view. This would add emphasis (in addition to control and access to resources) on internalised poverty and lack of strength of the people themselves. This is where anthropology and sociology of development, besides economics and management of development projects and process, with emphasis on value factors become important. Dr. Abecassis is of the view that mere materialistic view of poverty which has influenced the work of NGOs in Bangladesh and elsewhere is inadequate and therefore failed to generate the climate and momentum that meaningful development process needs. He has asserted that continuity of external stimulus, which NGOs provide, without meaningful internalisation of values of change and development in humanistic terms, fails to meaningfully integrate social, cultural, political and economic dimensions of development. In this context he considers uncritical acceptance of Paolo Fiere's approach by our NGO theologians as faulty.

The Fourth Five-Year Plan by including NGO sector has increased expectations of NGOs and their constituency. This has opened the channel to greater political manipulation. This has also offered the donors an opportunity to intervene, if they want, more directly. But the question that remains is whether the NGOs who have been dependent on external stimuli (for material or ideological purposes), can transform themselves into meaningful people's organization instead of becoming a project or programme manager only. The past is not a happy pointer in this respect.

## FEASIBILITY OF LOCAL LEVEL PLANNING: RESULTS OF AN ACTION RESEARCH

MUZAFFER AHMAD\*

### HISTORICAL PERSPECTIVE OF LOCAL LEVEL PLANNING IN BANGLADESH

Though local level planning in the region that constitute Bangladesh today has a long history, the system has not yet anchored itself firmly despite rhetoric in favour of such a system. This is partly explained by centralized bureaucratic machinery for administration, unstable political development and absence of the continuity of democratic process and institutions. Even today government has not properly and adequately defined the nature and role of local governments and thus functional sharing of resources.

However, precursors of local level planning were nationalists (like Rabindranath Tagore) or humanitarian administrators (e.g., Gurusaday Datta) who advocated, even undertook rural development activities for improvement of social, cultural and economic conditions. The local bodies, union boards and zilla boards with elected representatives during the British period built roads and bridges, provided health and veterinary services and maintained schools with money raised through local tax and non-tax revenue. But after independence such activities became stagnant and the national government was expected to respond to such developmental needs. In practice the response of the government was not to strengthen local governments as such but to start local level development programmes with aid resources. These were planned at national or provincial capital. Later Comilla approach introduced two tier cooperatives and a Thana based training programme which offered cooperators to interact closely with government functionaries and coordinate certain development activities. The Rural Development Academy acted as the guardian which promoted such action plans as Rural Works Programme (RWP) and Thana Irrigation Programme (TIP) and allowed the Basic Democracies a role in planning specific local level projects particularly in the field of irrigation and road building; and special

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\* Professor, Institute of Business Administration, Dhaka University

programmes (e.g., school building, improvement of hats and bazars or reclamation of derelict ponds) were also possible.

The Local governments were helped to prepare small local level projects through provision of manuals and assistance which were funded by the government to improve infrastructure and provide employment to rural poor. There was no integrated local level plan. In addition, the cooperative societies could undertake projects of their own from their saving or with loan from banks and this required no approval from any external agency so long as they obeyed rules and regulations of cooperatives. These activities were for individual or group income generation. Further, national government was undertaking projects which affected the local economies directly and some such projects could have been undertaken by local government institutions.

After 1971, the local government organizations were inactivated by the central government. But during this period non-government organizations (NGO), mostly foreign or funded by foreign agencies, were preparing and implementing small projects at local levels for rehabilitation purposes. Over the years they have perfected their target group approach with supporting budgets, action plans, training and promotion of some participatory practices. However such activities of NGOs are never coordinated at the local level, and rarely so at central level. By 1974, government also coaxed the banking system to go to villages to fund individual or group projects particularly in the area of agriculture and non-farm income generating activities. These in turn were never coordinated at local level. The programming for these were done by central bank and headquarters of particular nationalized banks.

The scene changed in 1975 after the assassination of Sheikh Mujibur Rahmam. The government proceeded to establish in 1976 four divisional boards as a loose forum to prepare and approve small projects within their administrative jurisdiction. The annual budget was about TK 50 million. In 1977 government established three special area boards with similar purpose and changed jurisdiction of some of the divisional boards. These boards preferred to implement projects of infrastructural nature and made grants to schools and colleges. Thus it performed functions of zilla boards but without power of raising revenue and made little efforts to involve local people in formulating the local plan. Neither the divisional board nor the special area boards have developed the capacity to develop integrated multisectoral plans for socio-economic development. That was left to the central planning system and the boards played a marginal role.

At the district level, there is little scope to initiate any local level plan and it basically coordinates any plan delegated to it by the national government. Thus the role was to implement works programme of larger dimension, i.e., build inter-thana roads, bridges and culverts on them and maintain these facilities. This function also became moribund and no public participation has been revived since 1971, before that year Union Parishad chairmen used to be represented on the Zilla Parishad. However recently government has included Zilla Road Maintenance Projects in its development programmes and these are implemented by Zilla Parishads under the preserve of District Commissioner and as per manuals prepared by foreign donors for the Government. Zilla Parishad prepares Annual Operation Plan according to these manuals.

The Thana (now Upazila) as an important locus of development has been so recongnized since the 60s with the Comilla approach introducing Thana Training and Development Centre (TTDC), Thana Central Cooperative Association (TCCA), Thana Irrigation Plan (TIP) and finally Integrated Rural Development Programme (IRDP). Through this approach Thana Road Plan, Thana Drainage and Embankment Plan, Thana Irrigation Plan, etc. are prepared for financing by the government. In twenty years at least the technical approach to Thana planning in these sectors have become standardized. These (RWP, TIP) are considered useful mechanisms for interaction and coordination between the government agencies, local government institutions and at times the donors. Similar development has emerged in respect of Food for Works Programme (FFWP) which is basically a relief and rehabilitation measure and through a proforma planning, repair and construction of roads, embankments, canals, etc. are undertaken. The FFWP pays wages in foodgrains while RWP pays wages in cash. Besides this basic difference today the two are indistinguishable. Government has now made functional differentiation between the two programmes (e.g., rural roads programmes are now done under FFWP while construction of bridges and culverts are done under RWP). Before we leave this short review, it may be mentioned that under Bangladesh Rural Development Board (BRDB) production plans of Krishak Samabaya Samity<sup>1</sup> (KSS) are coordinated by TCCA for channeling credit, fertilizer and other inputs. However, attempts to prepare Thana land use plan has not been a success.

It would be seen that Thana level projects are prepared by various components, e.g., roads and embankments under FFWP by Project

1. Farmers cooperatives.

Implementaion Officer (PIO) of Relief Ministry working in conjunction with Union Parishad (UP); culverts, bridges and irrigation by Upazila Parishad (UZP), agricultural credits by KSS-TCCA and nationalized Commercial Banks (NCBs); income generating activities by Grameen Bank<sup>2</sup> (GB) and NGOs and bigger projects by national agencies. There is no effective machinery to prepare a coordinated local level plan at Thana (Upazila) level. The experiments of Integrated Rural Development Programmes at Serajganj and Noakhali or elsewhere, planned at national level and made complicated due to many components, could not reach its targets or utilize its resources fully. Moreover, Area Development Programmes involving investment of large amount in a small area from a government budget through a bureaucratic management is considered anti-dote of local level planning.

Certain parallel developments took place in the field of local level planning in the meantime. One is Swanirvar or self-reliance movement. The basic idea was village-based development programme initiated by local people for mobilization of local resources through joint efforts of peoples organizations and government officials to ensure optimal use of land, water and manpower. This received government endorsement in 1980 but that was later withdrawn. This now survives as an informal group activity for income generation and savings mobilization as is done by more wellknown programme of Grameen Bank. The village plan concept of Swanirvar never materialized. The other was own village Development (OVD) initiated by Government for its functionaries to generate development programmes, in ones our village.

Thus it may be summed up as follows. First, there was a tradition of local financed infrastructure development programmes which were later replaced by aid financed RWP and TIP. RWP currently takes care of bridges and culverts and FFWP of local roads. Second, there are income generating activities by cooperatives which became conduit for output-increasing-input supply programme particularly in agriculture. Third, there are income generating activities mostly by NGOs directed towards target group which develop their own rules and regulations similar to cooperatives. Government has also developed programmes for target groups. Fourth, the banking system—nationalized commercial banks, Grameen Bank, Krishi Bank—are administering supervised credit as per decisions of overall national credit programme and also locally adjusted income generating programmes in the non-farm sectors at the initiative of NGOs or on their own. Fifthly, there are local community organizations

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2. Rural Bank

### *Ahmad : Local Level Planning*

which organize their own efforts often under encouragement from an enterprising government officials to undertake small activities of similar nature. This variety indicates a complex maze of local level development activities that go on at the Upazila level.

In 1982 the Thana was formally converted into the focal point of local level government where government functionaries of all line ministries were made present. In an attempt for achieving decentralization many new offices have been created in Upazila and the status of officers have been elevated. The physical facilities at Upazilas have been developed quickly to make it functional. Law has been promulgated to set up Upazila Parishad with elected chairman to handle local developmental functions for which block allocation of funds have made available. Besides the elected chairman, chairman UZCCA (former TCCA), officers nominated by government, chairmen of Union Parishads, one nominated member and three women members nominated by the government constitute the Upazila Parishad. The government has transferred the following sectoral functions to Upazila Parishad:

- 1) Agriculture (Extension) (TIP),
- 2) Livestock,
- 3) Fishery,
- 4) Health and Family Planning,
- 5) Rural Water Supply and Sanitation,
- 6) Primary Education,
- 7) Cooperatives (registration and extension),
- 8) Social Welfare (SWP),
- 9) Relief (FFWP), and
- 10) Rural Works Programme.

Thus it may be appropriate to presume that upazila plan would cover at least these areas. But it may be interpreted to cover areas related to these as there is a kind of sharing and iterating relationship with higher level governmental and semi-governmental bodies.

### PRESENT STATE OF RAIGANJ: PROBLEMS AND PROSPECTS FOR DEVELOPMENT

For our action research we chose the Raiganj upazilla. It is one of the nine Upazilas that now constitute Serajganj District of today. Raiganj town is fourteen miles north-west from Serajganj by road. The area of Raiganj Upazila is about 103 sq. miles. There are nine unions in Raiganj- Ghurka, Dhubil, Dhangara, Pangashi, Brahmangacha, Chandaikona, Naika, Dhamainagar and Sonakhara. There are 169 mouzas and 260 villages in these nine unions.

*Population and Employment*

Raiganj is as densely populated as any other parts of Bangladesh. According to 1981 Census the total population of Raiganj Upazila is 180,593 of which 91,555 are male and 89,043 are female. Thus 1,753 people live in one sq. mile and 5.74 people on average live in each of the 31,471 households. Density of population in Raiganj is higher than the average for Bangladesh (1,566) and lower than that of Serajganj (1,932). The average person per household in Raiganj is lower than Bangladesh (6.14) and also lower than Serajganj (5.97).

In 1951, population of Raiganj was enumerated to be 84,566 and in 1961 it was 104,783. Thus in ten years population increased by 23.9%. In 1974 census enumeration estimated population in Raiganj to be 153,961, i.e., in thirteen years population increased by 46.9%. In the next seven years population increases by 17.3%. The corresponding figures for Bangladesh for 1961-74 and 1974-81 are 40.60% and 21.79% respectively and that for Serajganj was 50.65% and 19.69%. In the last seven years population increases in Raiganj has been relatively less. This is also true in comparison with other Upazilas of Serajganj District except for Chouhali and Kamar Khanda. Even then it should be noted that in twenty years (1961-81), population in Raiganj increased by 72.38%, i.e., the annual rate of increase of population growth is over 3%. The statistics for 1981-84 shows that in Raiganj population increased by 9.6%. Thus the rate of increase of population in Raiganj has not slowed down. One of the objective of LLP should be to make FP activities more effective.

The following table gives the distribution of population by unions for 1984 as collected from the union councils.

Table-1: Population of Raiganj in 1984.

| Union       | Adult            |                  | Non-adult         | Total   |
|-------------|------------------|------------------|-------------------|---------|
|             | Male             | Female           |                   |         |
| Ghurka      | 5,354<br>(25.27) | 5,510<br>(25.98) | 10,339<br>(48.75) | 21,207  |
| Dhubil      | 4,220<br>(28.41) | 4,389<br>(29.54) | 6,244<br>(42.05)  | 14,853  |
| Dhangara    | 5,933<br>(23.22) | 6,402<br>(25.05) | 10,584<br>(51.73) | 22,482  |
| Pangashi    | 5,844<br>(25.99) | 6,054<br>(26.99) | 13,215<br>(47.08) | 22,482  |
| Brahmagacha | 6,134<br>(20.57) | 6,129<br>(20.55) | 17,562<br>(58.87) | 29,825  |
| Chandaikona | 7,516<br>(26.38) | 8,032<br>(28.09) | 12,948<br>(45.53) | 28,496  |
| Nalka       | 6,305<br>(27.17) | 6,605<br>(28.46) | 10,295<br>(44.37) | 23,205  |
| Dhamainagar | 3,050<br>(17.78) | 2,845<br>(16.58) | 11,262<br>(65.64) | 17,157  |
| Sonakhara   | 4,875<br>(31.97) | 3,733<br>(24.48) | 6,641<br>(43.55)  | 15,249  |
| TOTAL       | 49,235           | 49,699           | 99,090            | 198,024 |

Source: Union Councils of Raiganj.

Note: Figures in () indicate percentage.

No recent statistics of age distribution of population was available. However in 1976 Dhaka University Bureau of Economic Research conducted a benchmark survey and in 1983 this Local Level Planning Project (LLPP) completed enumeration of households in forty-two villages in four unions in Raiganj and they provide the following information.

Table-2: Age Distribution of Population in Raiganj (in %)

| Age Group | DUBER1/ | 1983 Enumeration2/ |      |      |
|-----------|---------|--------------------|------|------|
|           | Total   | M                  | F    | T    |
| -5 years  | 14      | 12.8               | 14.1 | 13.4 |
| 5-9       | 20      | 16.4               | 16.5 | 16.5 |
| 10-14     | 14      | 15.1               | 13.9 | 14.5 |
| 15-19     | 8       | 10.0               | 9.5  | 9.7  |
| 20-44     | 28      | 32.4               | 34.9 | 33.6 |
| 45-59     | 10      | 7.1                | 6.1  | 6.6  |
| 60+       | 6       | 6.3                | 5.0  | 5.7  |
|           | 100     | 100                | 100  | 100  |

Source: 1/ Benchmark Survey of Serajganj, Dhaka University, Bureau of Economic Research.

2/ Data base for LLP—A survey of 42 villages in 4 unions,

Quadir, S.A. and Sultan, M.

These information indicate that population below the age of 10 constitute about 1/3 of the population. Further, female who constitute 50% of the population are mostly engaged in home production work. The benchmark survey indicates that only 3% of eligible female are engaged in wage sector. In addition, aged population constitute another 6%. Thus nearly two-thirds of population are dependent on the income earned by the rest. Absence of employment opportunity intensifies this dependency of a large segment of population.

In a sense all able-bodied male and female should be counted in the employable civilian labour force. From that point of view 98,934 persons in 1984, both male and female, were looking for jobs or income earning opportunity. For customs and traditions many women did not look for jobs outside the homestead. In 1974 no more than 3% of women sought jobs outside the homestead. But the chairmen of many unions think that about 30% of women are seeking jobs or income earning opportunities in 1984, some others put it at 5%. An estimated average seem to be in the range of 10 to 15%. According to the survey conducted by Quadir and Sultan it is 13%. Accepting that estimate, the civilian labour force in Raiganj in 1984 is estimated at 57,083.

Unemployment statistics in Bangladesh is poor and so such statistics exist for Raiganj. However the members and chairmen of union councils

were asked to generate some information for their areas of jurisdiction defining unemployed as one who finds no jobs at the going rate for wage. The results are reported below.

Table-3: Unemployment in Raiganj 1984

| Union        | Unemployed |        | Total  |
|--------------|------------|--------|--------|
|              | Male       | Female |        |
| Ghurka       | 1,100      | 435    | 1,435  |
| Dhubil       | 1,310      | 550    | 1,860  |
| Dhangara     | 3,133      | 550    | 3,683  |
| Pangashi     | 950        | 540    | 1,090  |
| Brahmangacha | 970        | 285    | 1,255  |
| Chandaikona  | 1,352      | 750    | 2,102  |
| Nalka        | 1,300      | 700    | 2,000  |
| Dhamainagar  | 1,158      | 230    | 1,388  |
| Sonakhara    | 1,175      | 360    | 1,535  |
| Raiganj      | 12,448     | 4,400  | 16,848 |

Source: Union Councils.

This indicates that 30% of civilian labour force is unemployed. 1976 survey indicated that an employed person has job for 226 days on average per year. Thus seasonality in employment further complicates the unemployment situation. Therefore an objective of local level planning should be creation of more employment opportunity at local level and creation of sustained (throughout the year) employment opportunity and supplemental employment opportunity during slack season.

#### *Agriculture*

##### *Land and land use*

Total land area in Raiganj is 65,920 acre. As per population of 1981 per acre availability of land is 0.37 acre. one estimate shows that 59,900 acres are cultivated or cultivable (BBS<sup>3</sup>, 1974). This accounts for 81% of total land area; another 11% is used for housing and township facilities, 2% are used as roads, 1.75% as orchard or is under forest and 1% is low land under water. Thus only 3.25% of land is waste land. Compared to the average for Bangladesh, proportion of cultivated land in Raiganj is relatively on the high side. From the pattern of land use it may be surmised that net cultivable area cannot be augmented, if anything urbanization, increase of population, and extension of road network will reduce the availability per capita. Thus another objective of local level planning should be to guard against unnecessary reduction in the net cropped area.

3. Bangladesh Bureau of Statistics.

The union councils have provided the following information about the cultivated land.

Table-4: Cultivated Land Area in Raiganj 1984

| Union        | Acre   |
|--------------|--------|
| Ghurka       | 5,166  |
| Dhubil       | 4,722  |
| Dhangara     | 5,001  |
| Pangashi     | 4,575  |
| Brahmangacha | 4,500  |
| Chandaikona  | 5,975  |
| Nalka        | 6,030  |
| Dhamainagar  | 8,015  |
| Sonakhara    | 4,800  |
|              | 48,784 |

Source: Union Councils, 1984.

This indicates that in ten years there has been serious encroachment on cultivated land and local level planning has to take cognizance of this.

In 1978-79 one-crop area was 45.5% of total area and two-crop area accounted for 33.5% while three crops were raised in 11.8% of total area. The intensity of cultivation was 162.9. In 1981-82 the corresponding statistics were 43.0%, 35.6% and 11.7% while the cropping intensity was estimated at 164.35%. Thus there has been no significant change in cropping pattern or intensity in the past few years. However, it should be noted that cropping intensity in Raiganj has been consistently higher than Bangladesh (146). In 1983-84, Matir Dak<sup>4</sup> estimates this to be as high as 218 for Raiganj and this is much much higher than that for Bangladesh. According to the same source, except for Dhamainagar, cropping intensity for all other unions is higher than 220. For 1984 union councils provided the following information.

Table-5: Cropping Intensity in Raiganj 1984 (in acres)

| Union        | One Crop | Two crop | Threecrop | Net    | Gross Total | Intensity |
|--------------|----------|----------|-----------|--------|-------------|-----------|
| Ghurka       | 200      | 4,133    | 833       | 5,166  | 10,165      | 196.8     |
| Dhubil       | 602      | 3,100    | 1,020     | 4,722  | 9,862       | 208.4     |
| Dhangara     | 803      | 2,172    | 2,126     | 5,101  | 13,523      | 265.1     |
| Pangashi     | 155      | 3,475    | 945       | 4,575  | 10,040      | 219.5     |
| Brahmangacha | 900      | 3,000    | 600       | 4,500  | 8,700       | 193.4     |
| Chandaikona  | 210      | 3,140    | 2,625     | 5,975  | 14,365      | 240.4     |
| Nalka        | 230      | 4,470    | 1,230     | 5,930  | 12,860      | 216.9     |
| Dhamainagar  | 5,575    | 2,145    | 285       | 8,005  | 10,720      | 133.9     |
| Sonakhara    | 30       | 3,000    | 1,770     | 4,800  | 11,340      | 236.2     |
|              |          |          | Total     | 48,774 | 101,575     | 208.3     |

Source: Union Councils.

4. This was a programme undertaken under the supervision of the Army to increase production in villages.

According to this estimate, the intensity of cropping in Raiganj is about 208. It is to be noted that except for Dhamainagar, one-crop acreage is small in all unions and thus it can only be reduced marginally in Raiganj. The moot question is can the acreage under three-crops be increased significantly? An investigation shows that water logging in low-lying land makes more than one crop nonfeasible in certain unions and thus drainage could be an option. And nonavailability of water makes two-crops difficult in certain other unions. Hence irrigation possibility needs to be investigated. One problem is increasing cost of irrigation which makes water unavailable for the poor and marginal farmers who can use water only at a minimal cost. The limitation to increasing intensity upto three crops has been set by the nature of the soil, nonavailability of water and need to keep land fallow for regaining fertility. Hence any increase in cropping intensity, besides technological breakthrough in short duration crop, would be dependent on drainage and irrigation.

This was a programme undertaken under the supervision of the Army to increase production in villages.

*Irrigation and drainage*

*The river systems*

There are two rivers, Ichamati and Karotoa, that flow through Raiganj. Ichamati flows by the south-eastern part while Karotoa flows through the middle of the upazila. There are also some beels in the east. In order to improve irrigation and water-logging the following irrigation canals—6 canals of 20 miles length in total—would be helpful.

- |                       |                  |
|-----------------------|------------------|
| 1) Rudrapur canal     | 1 mile in length |
| 2) Daolabhog canal    | 8 mile in length |
| 3) Phuljhor canal     | 3 mile in length |
| 4) Baikanthapur canal | 3 mile in length |
| 5) Boalia canal       | 2 mile in length |
| 6) Subarnakanti canal | 3 mile in length |

The two rivers are perennial but their navigability need be improved and that would mean larger availability of water for irrigation purposes. In the west of the Upazila irrigation canal need be dug to store water in rainy season for irrigation in dry season. In Raiganj, there is no measurement of water availability from rivers. This need be done in order to coordinate implementation of the proposed irrigation canals. The water logged area in the east need be reclaimed through a drainage system in order to increase land available for winter crop.

*Irrigated land area*

Irrigated area in Raiganj has been increasing over the years. In 1978-79 the area under irrigation was about 5,400 acres or 9% while in 1982-1983 the irrigated area was estimated to be 23,561 acres or 40% of cultivable land. Information collected by Matir Dak about irrigated land and methods of irrigation is given below.

Table-6: Irrigated Land Area and Irrigation Technology in Raiganj

| Union        | DTW | STW | LLP | Land Irrigated (acre) (% of land) |
|--------------|-----|-----|-----|-----------------------------------|
| Ghurka       | 30  | 25  | 6   | 2,200 (42.5)                      |
| Dhubil       | 26  | 40  | 6   | 2,200 (46.6)                      |
| Dhangara     | 10  | 84  | 113 | 4,140 (82.8)                      |
| Pangashi     | 33  | 4   | 16  | 2,240 (47.2)                      |
| Brahmangacha | 27  | 60  | 13  | 2,600 (57.8)                      |
| Chandaikona  | 13  | 70  | 37  | 2,400 (40.2)                      |
| Nalka        | 15  | 20  | 19  | 2,000 (33.2)                      |
| Dhamainagar  | 16  | 26  | 3   | 1,250 (15.6)                      |
| Sonakhara    | 30  | 18  |     | 2,000 (41.7)                      |
|              | 200 | 347 | 213 | 21,030                            |

Source: Matir Dak.

According to government statistics in 1981-82 the total area of irrigated land was 12,524 acres of which 6,375 was irrigated with the help of LLP, 4,794 by DTW and STW, 1,090 by gravity canal and 265 by swing basket.

The union council members and chairman provided an estimate for 1983-84. In Ghurka they said, about 2,111 acres were irrigated of which owners of equipment under their management irrigated about 28.4%, KSS (agricultural cooperatives formed for purchase/lease of pumps) accounted for 46.5% and the rest (25.1%) was accounted for by others, i.e., renters, leasers or users of water on payment. In Dhubil the irrigated acreage was 1,825 and corresponding shares were 43.8%, 23.1% and 33.1% respectively. In Dhangara similarly irrigated area was 3,470 acres and corresponding shares were 21.6%, 47.5% and 30.9%. In Pangashi 2,365 acres were irrigated of which the corresponding shares were 33.6%, 49.2% and 17.2%. Similar patterns of sharing of irrigation facilities are seen elsewhere.

The owner-users are large farmers. Their dominance is visible. The KSS is mostly controlled by surplus farmers. The importance of KSS is also discernible. The marginal farmers are the renters and leasers. The subsistence farmers seem to be out of the development process. Thus the

extension of irrigation programme has to make special effort to reach this group which could not avail of the opportunity offered by credit and cooperatives.

Table-7: Irrigated Land by Ownership and Management, 1984

| Union        | Total Irrigated Acreage | %Irrigated by Owners on His Own | %Irrigated By Coop | % Irrigated through Rental etc. Arrangement |
|--------------|-------------------------|---------------------------------|--------------------|---|
| Ghurka       | 2,111                   | 28.4                            | 46.5               | 25.1  |
| Dhubil       | 1,825                   | 43.8                            | 23.1               | 33.1  |
| Dhangara     | 3,470                   | 21.6                            | 47.5               | 30.9  |
| Pangashi     | 2,365                   | 33.6                            | 49.2               | 17.2  |
| Brahmangacha | 2,600                   | 38.8                            | 35.8               | 25.4  |
| Chandaikona  | 1,675                   | 28.8                            | 48.6               | 22.6  |
| Nalka        | 2,000                   | 50.0                            | 40.0               | 10.0  |
| Dhamainagar  | 1,400                   | 64.3                            | 21.5               | 14.2  |
| Sonakhara    | 1,935                   | 57.7                            | 26.3               | 16.0  |
| Total        | 19,381                  |                                 |                    |   |

Source: Union Councils.

Note: The drop in irrigated area compared to Matir Dak is expected as that increase (1983-84) manifests influence of a powerful external agent.

#### *Irrigation management*

In extending the irrigation programme through excavation of canals and storage of water it is necessary to make a planned approach for the use of tubewells and pumps. This calls for better management of water use. According to information available from Upazila Agriculture Office, in 1982-83 on average 195 DTWs irrigated about 36.84 acres of Boro land; 419 STW irrigated about 10.81 acres and 216 LLPs about 18.36 acres. All these are below optimal economic levels of operations. From the same source it is known that 181 DTW on average irrigated about 12.03 acres of Aus land, 368 STW about 5.03 acres and 83 LLP about 10.55 acres. These performances are dismal. In that year 130 DTW, 257 STW and 118 LLP on average irrigated about 7.62, 3.79 and 5.29 acres of wheat land. All these call for improvement of irrigation management which can meaningfully be done on the basis of a block of lands (say a village) which means shift in the institutional infrastructure from coops and private management to village-encompassing organization controlled by common farmer on equity basis. Without such a shift, the use and performance of existing irrigation facilities will be unimpressive, even uneconomic. It is

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estimated that through such institutional arrangements and relocation of tubewell/pump sites 25-30% more land could be irrigated given the availability of water.

#### *Irrigation equipments*

The problems that limit capacity utilization of irrigation equipment are nonavailability of spare-parts in time and nonavailability of mechanics locally. There are also problems of availability of diesel oil as farmers do not have adequate working capital to store them adequately. For a small farmer any irrigation equipment is expensive and fragmentation of land as well as scattering of plots make formation of farmer groups difficult. Furthermore, rich farmers have dug DTW in an unplanned manner and this made many STWs unworkable. These problems can only be solved through an integrated land use plans for the entire locality. Thus Raiganj should ideally have nine union-based plans for irrigation and land use. There should also be central pool of equipment, spares and diesel.

### FARM INPUTS

#### *Fertilizers*

The contribution of fertilizer alone with water in raising agricultural productivity is wellknown. In Bangladesh use of fertilizer is quantitatively less per acre and often unbalanced in nutrient composition. This nonoptimal use of fertilizer resulted in nonoptimal productivity in agriculture. There is not enough information available about use of fertilizer in Raiganj. As per government statistics, on average 30.72 kg. fertilizer was used per acre in 1978-79. Total use of chemical fertilizer was about 2.61 thousand MT of which 1.74 MT was urea, 0.77 MT TSP and 0.10 TSP. This is obviously not in the recommended proportion of 2:1:1. There are obvious differences in the use of fertilizer by crop and by size of landholding. In 1977 only one fifth of cultivated land used chemical fertilizer and as per 1983 survey of Quadir and Sultan 65% of farmers used some chemical fertilizers. Thus there is an increasing trend in fertilizer use. One of nine union council chairmen and members confirmed that supply of fertilizer was adequate and two of nine opined that use of fertilizer was regular, while others complained of inadequate supply and irregular use. Thus there is an urgent need to improve the supply and use of fertilizer. There is just two fertilizer godowns. Due to recent privatization policy supply and sales of fertilizers below UZ level is to be done by the non-governmental agencies. This trade can easily be done by (landless) farmers cooperatives if trade credit is made available.

### *Seeds*

In order to get the best results from use of water and fertilizer seeds should be of improved quality. Thus improved seed need be identified, multiplied, certified and supplied in time. The farmers need be educated and trained to produce, select and conserve such seed. In this the farmers cooperatives can play a very helpful role. In Raiganj there is no planned effort for improved seed identification, multiplication or certification. Such an effort need be undertaken in each village through contact farmer groups under union based agricultural extension agent and farmer training programmes.

### *Insecticide*

There is inadequate information about use of pesticides in Raiganj. In 1977 only 2% of cultivated land was covered by spraying of insecticide. Now insecticide is marketed by private traders. As per opinion of union council members and chairmen in five of nine unions the availability of insecticide in time was inadequate in 1982-83 while only in 2 there was no such problems. Thus there is scope for appropriate planning to ensure timely availability of insecticide in most of the unions of Raiganj Upazila. Again the farmers associations can play an useful role.

### AGRICULTURAL IMPLEMENTS AND ANIMALS

There has never been a complete Census of available implements. The Census of 42 villages conducted by Quadir and Sultan shows that 38.4% households own plough; landless agricultural labourers, big farmers who do not cultivate themselves and members of other professions do not own any such implements. 1976 agricultural census indicate that in Raiganj 56.79% of households do not have draft animals and another 28.91% have one only when they need two. The Census of 42 villages indicate that 30% of household have on average 1.6 draft animals. Thus there is an immediate necessity to augment supplies of agricultural implements of elementary variety and of draft animal. This can be done through a group supervised agricultural credit system. One group can be organized in each village.

### AGRICULTURAL CREDIT

Not much information is available for Raiganj. There are thirteen branches of public sector banks in Raiganj; Agricultural Bank has one branch in Dhangara, Sonali Bank has branches in three unions, Janata in two and Agrani in seven. Grameen Bank does not operate in Raiganj yet. Dhangara has the maximum presence. Even in unions, banks tend to be

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clustered in terms of location. Of the 27 wards in nine unions 18 wards have no presence of banks.

The survey of 42 villages indicate that 40% of households have taken some loan but of them only 13.4% have taken loans from banks. Of the latter only 3.7% took loan from Agricultural Bank. Of these loanees only 25% took loan to buy draft animal, agricultural inputs or agricultural equipments. The average size of loan is small and there are many procedural formalities in securing loan from banks.

The information supplied by union council members and chairmen indicate that in terms of amount landless, small farmer, middle farmer and big farmers received loan in 1:4:8:50 proportion. That is if landless received loan of Tk. 1, small farmer got Tk. 4, middle farmer Tk. 8 and large farmer Tk. 50. Thus the dominance of a small group of big farmers is discernible. Next comes the middle farmers. But small farmers received small loans in large numbers. Landless received least amount of loans under defined programme and most landless received none at all. The indications are small farmers generally used most of the loan for agricultural purposes in agriculture and repaid the loan promptly while such has not been the case with middle and big farmers.

Agricultural credit has not been planned well. The banks need to carry out survey of agricultural household and determine working capital needs per acre by types of crop. Then the credit could be advanced through a system of group security, group being formed by members of same economic status. On the basis of Tk. 1,00 per acre, the agricultural credit need seem to be about Tk. 60 million in Raiganj. In addition Tk. 1,000 per household may be needed for processing, storage and marketing. This would amount to Tk. 30 million as credit. Further on group basis agricultural loan for irrigation, storage, cold storage may also be needed.

### AGRICULTURAL PRODUCTION

For 1981-82 production of various agricultural commodities, land used in production by commodities and per acre production in maunds are given below.

Table-8: Production of Agricultural Commodities in Raiganj in 1981-82

| Commodity      | Land<br>(Acre) | Production<br>(Maund) | Per Acre Production<br>(md) |
|----------------|----------------|-----------------------|-----------------------------|
| Aus*           | 28,460         | 293,600               | 10.3                        |
| Aman*          | 51,845         | 606,675               | 11.7                        |
| Boro           | 1,605          | 43,725                | 27.2                        |
| Wheat          | 3,051          | 66,122                | 21.7                        |
| Jute           | 2,690          | 45,150                | 16.8                        |
| Sugarcane      | 1,945          | 1,226,703             | 630.7                       |
| Potato (local) | 276            | 16,008                | 58.0                        |
| Potato (HYV)   | 57             | 5,673                 | 99.5                        |
| Sweet Potato   | 600            | 59,889                | 99.1                        |
| Gram           | 975            | 7,847                 | 8.0                         |
| Pulses Arhar   | 7              | 75                    | 9.0                         |
| Kalai          | 835            | 8,355                 | 10.0                        |
| Masur          | 2,985          | 26,899                | 8.9                         |
| Mung           | 48             | 388                   | 8.0                         |
| Khesari        | 850            | 6,799                 | 8.0                         |
| Termeric       | 115            | 1,913                 | 16.6                        |
| Ginger         | 20             | 1,200                 | 60.0                        |
| Coriander      | 35             | 245                   | 7.0                         |
| Chillies       | 525            | 4,548                 | 8.7                         |
| Onion          | 177            | 6,833                 | 38.6                        |
| Garlic         | 86             | 3,296                 | 38.3                        |
| Colliflower    | 16             | 960                   | 60.0                        |
| Cabbages       | 10             | 500                   | 50.0                        |
| Beans          | 27             | 1,620                 | 60.0                        |
| Raddish        | 70             | 5,390                 | 77.0                        |
| Squash         | 12             | 144                   | 12.0                        |
| Egg plant      | 245            | 16,325                | 66.6                        |
| Tomato         | 25             | 1,500                 | 60.0                        |
| Mustard*       | 2,125          | 14,875                | 7.0                         |
| Rapeseed*      | 125            | 875                   | 6.6                         |
| Til*           | 475            | 3,275                 | 6.9                         |

\* For 1980-81.

Source: BBS

Matir Dak has provided the following information of land used for local and HYV paddy in various unions of Raganj in 1982-83.

Table-9: Production of HYV and Local Paddy Lands

| Union       | HYV<br>(Acre) | Local<br>(Acre) | HYV:L<br>Ratio |
|-------------|---------------|-----------------|----------------|
| Ghurka      | 2,650         | 6,000           | 0.44           |
| Dhubil      | 2,000         | 7,000           | 0.29           |
| Dhangara    | 3,700         | 3,300           | 1.12           |
| Pangashi    | 2,500         | 4,800           | 0.52           |
| Brahmagacha | 4,000         | 4,200           | 0.95           |
| Chandaikona | 4,000         | 5,800           | 0.69           |
| Nalka       | 2,000         | 4,400           | 0.40           |
| Dhamainagar | 1,100         | 8,100           | 0.13           |
| Sonakhara   | 2,600         | 5,250           | 0.50           |
|             | 24,550        | 48,850          | 0.50           |

Source: Matir Dak.

#### MARKETING OF AGRICULTURAL PRODUCTS

There are 9 daily markets and 12 weekly/biweekly markets in Raiganj. Each union has one or more market places. These market places are not well connected with all the villages and this makes transportation of goods to and from villages difficult. Again all these Hats are not connected well with Upazila or 'larger' market centres. From this point of view it is necessary to interconnect them by roads and improvement of roads connecting the market places at Chandaikona, Saliagari, Nimgachi, Salanga, Dhangara, Jampangashi, Hatpangashi and Brahmagacha Hat. Total construction/reconstruction of road would be about 46 miles.

For marketing of agricultural produce it is necessary to improve the management of Hats. There need be storage, processing and preservation units. Facilities for marketing agro-industry products in these places need be improved. These market centres should also become centres for government procurement and intervention activities. The market places need be electrified. There should be appropriate sanitation and drinking water facilities.

The management of these market places may be vested in a community organization, e.g., Association of Agricultural Producers (KSS) or Association of Landless Labourers (BSS), even a community organization (e.g., school). These associations should be responsible for maintenance and development of the market places. Initially banks may advance money for such development. Such associations would raise revenue from sellers

and pay a part of net income to union and /or councils. Initially at least experimentally one market place should be so developed and later extended to other places.

#### DEVELOPMENT POTENTIALS AND INDICATIVE PROGRAMME

HYV is cultivated in half as much land as local variety. This proportion needs be reversed. HYV requires water, fertilizer, seed and insecticide. It seems due to irrigation problems, this may be difficult in Dhubil and Dhamainagar; these two unions deserve special attention on that account. Whereas in Dhangara and Brahmangacha it seems possible to reach 2:1 proportions for HYV: local through more cooperation in land use. In other unions this optima can be approached gradually through better land use management, but they can rather quickly approach 1:1 proportion with assured input supply.

The statistics of agricultural produce indicate that Boro is cultivated in 2% of land devoted to paddy and produces 4.6% of the total output. In a period of five years, through planned irrigation, land under Boro can be increased at least fivefold. Similarly land under wheat can be increased. In case of Aus, land under HYV can be increased threefold in five years.

In order to achieve this increase in production, the supply of fertilizer need be augmented as follows:

Table-10: Estimated Requirement of Fertilizer (MT)

| Fertilizer | Urea     | TSP      | MP     |
|------------|----------|----------|--------|
| Boro       | 322.43   | 168.80   | 50.16  |
| Aus        | 1,905.80 | 1,016.42 | 332.03 |
| Aman       | 782.98   | 417.59   | 146.16 |

Note: As per average use in national plans.

Raiganj has only two fertilizer godowns of 100 tons each. This capacity needs to be increased fivefold.

There is possibly no need to increase land under jute. But through extension of intensive jute cultivation scheme to all jute lands in Raiganj it is possible to increase jute output by 50%. For this there is need for 4 seer of improved seed, 1 maund of urea, half-a-maund TSP and half-a-maund of MP per acre. These need be supplied through revitalized jute farmers cooperatives, members of which need be trained in extension work. There are 74 farmers cooperatives with a membership of 2,880; but most of them do not function properly.

The available statistics show that sugarcane production per acre in Raiganj is 23.8 ton. This is much higher than Bangladesh average. Thus sugarcane has a potential to develop as a cash crop and may help growth of cottage industry to produce gur and khandeswari. There are no sugarcane cultivators cooperatives in Raiganj.

In case of potato, more high-yielding varieties need be cultivated. If each year 50 more acres are brought under HYV in 5 years 250 more acres can be brought under this crop, increasing the total output by about 100%. This would require supply of 4.5 md of fertilizer and 12 md of seeds per acre.

In case of oilseeds per acre production is low. There has been little work done to find HYV in case of oilseeds or to plan intensive cultivation. The reasons cited for low production per acre are inadequate use of fertilizer and insecticide. The seed used are said to be of poor quality. Improvement in these respects are called for.

The production of pulses is not satisfactory. The cultivation practices are said to be traditional and poor. The seed used is of poor quality. Further, the production of mug and musari can be augmented through diversion of land from Kalai and Khesari.

#### AGRO-ORGANIZATIONS

All these proposals are conditioned by the supply of adequate and improved inputs and improved agricultural practices. This requires a programmed supply of credit through appropriate organizations which bring the primary producers together. Such efforts require support of organized sustained extension services from a research station (like Bogra Academy) and government as well as public officials. As per available information there are 254 KSS in Raiganj with a membership of 7,300. It is reported that only 220 are working on a regular basis. This means there are less than one organization per village in Raiganj which has 260 of them. There are inadequate information available about the association of landless labour or pump cooperatives. However some of the KSS have taken pumps on a group basis. And there are seven multipurpose cooperatives.

KSS are present in all unions and all wards of the unions. The available information as provided by members and chairmen are as follows.

Table-11: Number of Farmer Cooperatives

| Union        | Ward | No. of KSS | Active | Inactive |
|--------------|------|------------|--------|----------|
| Ghurka       | 1    | 2 or 3     | 10     | 12       |
|              | 2    | 2 or 3     |        |          |
|              | 3    | 3 or 3     |        |          |
| Dhubil       | 1    | 3 or 4     | 12     | 8        |
|              | 2    | 4 or 5     |        |          |
|              | 3    | 5 or 6     |        |          |
| Dhangara     | 1    | 6          | 25     | 15       |
|              | 2    | 8          |        |          |
|              | 3    | 11         |        |          |
| Pangashi     | 1    | 6          | 18     | 10       |
|              | 2    | 6          |        |          |
|              | 3    | 6          |        |          |
| Brahmangacha | 1    | 3          | 9      | 7        |
|              | 2    | 3          |        |          |
|              | 3    | 3          |        |          |
| Chandaikona  | 1    | 6          | 18     | NA       |
|              | 2    | 6          |        |          |
|              | 3    | 6          |        |          |
| Nalka        | 1    | —          | 20     | 15       |
|              | 2    | —          |        |          |
|              | 3    | —          |        |          |
| Dhamainagar  | 1    | —          | 15     | 7        |
|              | 2    | —          |        |          |
|              | 3    | —          |        |          |
| Sonakhara    | 1    | —          | 15     | 8        |
|              | 2    | —          |        |          |
|              | 3    | —          |        |          |

Source: Union Councils.

Note: The figures may not tally with the Registrar Coop. Soc.

— indicates information not available.

It has been ascertained that most of these cooperatives are not active enough to create the desired impact. It is necessary to follow the simple rules of organizations (i.e., weekly meetings, regular attendance, savings deposits, joint activity programming, and auditing of accounts) to make them viable. It seems Thana cooperative officer and inspectors have not been effective enough to enforce these elementary rules.

#### AGRICULTURAL EXTENSION WORK

For increasing the agricultural production there is need for agricultural extension worker in each village. Government has recently integrated all crop-based extension activities into one single framework. The extension workers need not only be knowledgeable but must be available and supported by required inputs supply through an effective system. He needs to be responsive and responsible. The KSS has been thought of as

a local focal point for dissemination of knowledge and diffusion of problems. But in this production effort, it may indeed be advisable to create a wider base of expertise involving social workers, Imams, school teachers, even students of higher classes. In order to do this agricultural extension should become part of the training curriculum for Imams and school teachers and agricultural extension should be a required course in rural based school. This may as well start with Raiganj. This means the secondary schools teaching in Raiganj should be required to accommodate this. However, each union must have at least one full time trained agricultural extension worker. He should preferably be an employee of the union council but his pay may be paid by the government. Further, for the programmes arising out of extension services the 13 branches of banks in Raiganj should coordinate to prepare a credit support plan. This credit plan should preferably be village based identified by activity to be undertaken by individuals who are members of a group that jointly undertake responsibility of repayment. Banks have recently employed agricultural graduates to supervise the use of such credits and to monitor repayment. This activity requires coordination with the activity of agricultural extension work done by the government and local government agencies.

#### **SOCIAL FORESTRY: HOUSEHOLD TREE PLANTATION**

In all households of Bangladesh there are some trees planted but no planning is generally made in planting trees. There exists no idea about economic importance of tree plantation. There has been unplanned felling of trees to use them as firewood.

The survey conducted in four unions indicate that on average 43.9% of households have mango trees and each of such household has 2.4 mango tree. On this basis there are about 33,233 mango trees in Raiganj. As per B.B.S. statistics in 1981-82 only 6,850 maund of mangoes were produced. This means that production per tree was about 8 seers. This is much too little.

Similarly, the survey indicated that there were on average 2.2 jackfruit trees in 37.4% of households. Thus, in Raiganj 25,617 trees produced, as per B.B.S statistics, 15,658 maunds of jackfruit. Each tree produced only 24 seer of jackfruit. This is unbelievably low.

In Raiganj 2,968 lichi trees produced 2,162 maunds of lichis in 1981-82, i.e., each tree produced only 29 seers of lichies. This is far from ideal.

As per survey only 7.5% households have 2.4 coconut trees. Thus in

Raiganj there are approximately 5,664 such trees which produced 100 coconuts per tree per year. This is also far from satisfactory.

Similar sources indicate that 3.7% households have 3.6 plum trees, i.e., there are 4,192 palm trees in Raiganj and these produce on average about 83 fruits. This is ridiculously low.

Seventy-five per cent of the households have on average 9 banana plants. Thus 263,685 plants in 1981-82 produced an estimated 11,970 maunds of banana, i.e., each household had a production of half a maund or each tree produced two seers of banana. This is far from satisfactory.

The survey indicates that there are about 47,206 papaya plants in 25% of the households. The production is estimated at 5,350 maunds, i.e. each plant produced only 9 seers of papaya. This is highly unsatisfactory.

Available information indicate that 2.4% of household have blackberry trees and these produced on average 30 seers per tree. This is also too little.

Similarly 2% of households having guava trees produced on average 25 seers of fruit per tree. There are few olive trees. There are bamboo bushes in 6.2% of households.

But not many households planted trees for timber. They get timber from jackfruit and mango trees. Certain households have Karai tree. Much of the plantation of Mehagini and Karai are along the road.

The low production of fruit bearing trees indicate that these have not been cared for properly. There seem to be scope for extension work in this respect. Each household need to fell a low yielding tree and replant a good seedling. Each household need be encouraged to plant quick-fruit bearing plants (banana, papaya), high value fruit trees (mango), good timber trees (karai, mehagini), good firewood trees (pilpil) and may be a small bamboo bush for household and farm work.

Such a planned effort require development of nursery in each union but this may eventually be done through contact households helping women to earn extra income. Even then there is a need to develop a nursery in Raiganj and an outpost in each union. Through landless labourers cooperatives (BSS) and Women's Cooperatives (MSS) and KSS extension work for tree plantation need be done and a trained band of field worker, as in the case of agriculture, need be developed. The schools could similarly become focal point for much of these activities.

### Livestock

In 14,183 households of Raiganj domestic cattles are reared. This is 45% of the total household . The survey of 1983 indicates the following:

Table 12: Cattles and Poultry in Raiganj

|           | % of HH<br>Owing | Av.per<br>HH | Total for<br>Raiganj |
|-----------|------------------|--------------|----------------------|
| Ox/Bull   | 29.8             | 1.6          | 15,005               |
| Cow       | 39.0             | 1.7          | 20,861               |
| Calf      | 31.1             | 1.7          | 18,596               |
| Buffalo   | 6.6              | 1.9          | 3,946                |
|           |                  |              | 58,408               |
| Goat/lamb | 45.0             | 2.4          | 34,4064              |
| Cock/hen  | 60.0             | 4.0          | 74,900               |
| Duck      | 35.0             | 2.8          | 31,979               |

Source: LLP Survey.

1977 agricultural Census puts the figure at 58,457 for cattle and the union council in 1984 indicated the number to be 56,223. Thus the number of cattle of this variety seem to have remained more or less constant.

The Census indicates the number of goats/lambs to be about 22,214. The union council indicates the number to be 44,538. Thus an increase in the population of goats/lambs is indicated.

The Census (77) puts the figure for hens and ducks to be 37,979 and 24,005, while the union councils (84) indicate an increasing trend overtime.

Despite some improvements, the common complaint is about non-availability of livestock services. There is one veterinary graduate in Upazila, but there is a need for an extension agent in each union. The cost of rearing animal is increasing with cost of feed increasing. Non-availability of feed is also a problem. Even though prices of animal produce has increased—milk, eggs, meat, hides and skins are all expensive—but animal farming is still a part time activity of housewives. They need training in scientific rearing with assured supply of medicine, feed and services. Further a breeding centre in the Upazila could help such a programme.

### Fishery

According to official statistics, fish production in Rajganj in 1981-82 compared to 1972-73 was 30% less. This has happened despite the fact

that Raiganj had 21 miles of inland waterways, 53 beels as well as 360 ponds of which 88 are owned by the government. Union councils have provided the following information about the conditions of ponds in each ward.

Table-13: Condition of Ponds in Unions of Raiganj Upazila (numbers)

| Union        | Ward | Good | Derelict |
|--------------|------|------|----------|
| Ghurka       | 1    | 6    | 4        |
|              | 2    | 6    | 4        |
|              | 3    | 6    | 4        |
| Dhubil       | 1    | 10   | 5        |
|              | 2    | 10   | 4        |
|              | 3    | 10   | 5        |
| Dhangara     | 1    | 12   | 3        |
|              | 2    | 12   | 5        |
|              | 3    | 8    | 8        |
| Pangashi     | 1    | 10   | 1        |
|              | 2    | 6    | 2        |
|              | 3    | 9    | 5        |
| Brahmangacha | 1    | 10   | 1        |
|              | 2    | 8    | 4        |
|              | 3    | 7    | 5        |
| Chandaikona  | 1    | 10   | —        |
|              | 2    | 11   | —        |
|              | 3    | 10   | —        |
| Nalka        | 1    | 10   | 5        |
|              | 2    | 10   | 10       |
|              | 3    | 4    | 5        |
| Dhamainagar  | 1    | 10   | 10       |
|              | 2    | 10   | 6        |
|              | 3    | 10   | 5        |
| Sonakhara    | 1    | 6    | 7        |
|              | 2    | 5    | 6        |
|              | 3    | 6    | 5        |
| Total        |      | 249  | 119      |

Source: Union Councils.

These information indicates that 33% of all ponds are derelict. Of the government owned 88 ponds—2 are in Ghurka, 4 in Dhubil, 5 in Dhangara, 9 in Brahmangacha, 1 in Chandaikona, 19 in Nalka, 9 in Sonakhara and 34 in Dhamainagar. All these are or can be made suitable for drinking water and/or fish hatchery/pisciculture with little work. The fisherman

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cooperatives could be organized for this job. The practice of giving these to landless with no or little interest or youth groups have not been fruitful.

Ownership of pond by more than one person has created difficulties for leasing out of ponds for pisciculture. In Raiganj 111 ponds under non-government ownership owned by more than one shareholders and 158 seem to have one owner. Pisciculture could then be first started in non-derelict ponds which are privately owned by one or agreeable owners. This requires investment and bank loans for such purposes need be available.

Information available from union councils indicate that indifferent attempt at pisciculture was done in 10 ponds in Ghurka, 20 in Dhubil, 10 in Dhangara, 5 in Pangashi, 15 in Brahmangacha, 12 in Chandaikona, 4 in Nalka, 30 in Dhamainagar and 20 in Sonakhara. None of these were considered commercially successful. The principal reasons are said to be that scientific process of pisciculture was not followed due to ignorance and enough investments in fishfood, cleaning and weeding were not made. The banks were not much enthusiastic nor were fishermen enterprising to undertake pisciculture as an enterprise. All these point to the fact training in scientific fish farming is a necessity. With a modern hatchery nearby (at Nimgachi) and developing a demonstration pond for commercial fish farming in Raiganj the results could be different. Besides this backyard fish farming in a small mud-based brick walled unit is a distinct possibility. There were distinct enthusiasm amongst women in this matter.

### **INDUSTRY**

There are no large or medium industries in Raiganj. But there are a number of cottage industries particularly to meet local needs. Following 1981 Census the following information about cottage industries, problems and possibilities are mapped.

#### *Agricultural processing*

##### *Gur making*

There are 66 gur making units in Raiganj. These are run with family labour. According to available statistics 401 family labour work full or part time during November-March. Only 15 labour were hired for wages. In these units the amount of fixed assets are valued at Tk. 23 thousand. In each unit an average 2,100 maunds of sugarcane worth Tk. 21,500 are crushed. In 1981 these units sold gur worth Tk. 34,362 and made a net profit of Tk. 8,805. The value of production per labour is only Tk. 400. From the investment point of view the entire operation is marginally profitable.

The sugarcane availability in Raiganj can feed more gur making units. Bank loans for promoting such units by sugarcane farmers cooperatives or landless labourer cooperatives or women cooperatives is a possibility. And preparation of khandeswari would be more profitable and would require better crushers. But success of all such ventures including the present ones would depend on better marketability of their product and marketing cooperatives may be an institutional format that could be tried. Such an effort has brought good dividends for small producers of some products in neighbouring countries.

#### *Bread and biscuit factory*

In 1981 in Raiganj there was 1 factory with fixed assets worth Tk. 11,000 and it required annual working capital of Tk. 1,350 per week. Only four wage labour worked in the factory. Value of total annual sales was Tk. 79,000 and net profit was Tk. 12,000, i.e., Tk. 1,000 a month. Since then few more factories have come up.

Raiganj produces wheat; soyaflour is not available in the market, which is cheaper. It is surmised that a small bread and biscuit factory or a tandoor to make dry bread can easily operate in market places at least on market days. These would hardly require investment of more than Tk. 10,000 per unit. However some training may be required.

#### *Mills and Crushers*

In Raiganj no modern rice mill, flour mill, oil mill, pulse crushers, spiece crushers existed in 1981. Dhenki and ghani were there in the villages. The availability of electricity in Raiganj has made such mills a distinct possibility. The oilman cooperatives should be assisted to set up oil mills, women cooperatives the rice mills and spice crushers, and landless cooperatives the flour mills. Such an arrangement would have least labour displacement effect.

#### *Sweetmeat shops*

In 1981 there were 25 sweetmeat shops in which 13 wage labour and 81 family labour worked. Each unit had on average a fixed capital of Tk. 7,000 and needed monthly working capital of Tk. 6,000. Each of these shops on average earned a net annual profit of Tk. 15,000. The establishment of Upazila has certainly increased demand for such product. Further good marketing efforts with improved transportation may create demand for these in larger towns in the region. The milk producers and milk product producers cooperatives could profitably expand this business.

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### *Cattle-feed*

Cattle-feed is not adequately available nor there has been any effort made to make properly prepared cattle feed available locally. The raw materials like molasses, bran, hey, vitamin and urea are all available locally. If the livestock sector is to be given an appropriate booster, cattle feed availability would be helpful. Livestock cooperatives may be assisted to set up such an enterprise in the Upazila.

### *Zarda and Kimam*

In 1981 Raiganj had 11 zarda-kimam units, 44 family labour worked in these. Each unit had fixed assets worth Tk. 1,000 and needed operating capital of Tk. 3,000 a month. Each unit on average earned a net profit of Tk. 2,600 a year. This at best is a part time vocation for some household and can be so developed as supplementary income earning opportunity.

### *Ice factory and ice cream factory*

There are no such factory in Raiganj. However demand for these seem to be manifested. An ice factory of minimum capacity can meet the demand for fish preservation, restaurant and domestic ice cream units.

### *Honey production (bee farming)*

This has become a good income earning vocation for seleted families. It needs training and small amount of capital. There is scope to encourage it through women cooperatives.

### *Textile industry*

#### *Handloom*

As per government statistics in Raiganj 110 units have 510 handloom of which 367 are pit looms and 143 are semi-automatic. In these units 1,200 people work of which 800 are family labour. In 1981 total production of these units were 441 thousand yards of which 67% were sarees, 27% lungis, 4% chadar and 2% gumcha and others. 1983 survey of 5 unions found 247 handlooms in 45 units of which 195 were in working condition. In other four unions it was estimated that there are 263 handlooms of which 200 are in working condition. Of the surveyed 190 looms, 99 were pitlooms and 91 semi-automatic looms. The survey also found that the looms are on average operated six hours a day and produce 1 yard per day. Thus there exists large unutilized capacity. The reasons for underutilization are shortage of working capital and shortage of weaver. In addition there are occasional shortage of yarn. The survey indicated that yarn availability was 20% less than desired. However, if the looms operate at higher capacity yarn shortage would be higher.

There is a need to re-examine the product mix, coarse cloth has ready local market while finer product makes higher value added. Elsewhere in Bangladesh newer designs have augmented demand for handloom products. Further, the weavers, being bonded to Mahajan, often buy yarn at 70-180% higher prices and sell at 100-200% less than final consumer price. These problems can only be adequately answered through supervised input supply and market operations, preferably by the real weavers themselves. The recent bank credit operation has been alleged to have been misused and taken mostly by non-weavers. It is necessary to organize small weavers into functional cooperatives that would gradually perform all functions including input supply and final product marketing in secondary markets.

#### *Yarn dying factory*

There is one such factory where 7 family labour work. Most of the weavers dye their own yarn. The factory has fixed assets worth Tk. 30 thousand and its monthly working capital requirement is about Tk. 20,000. The annual net profit is about Tk. 26 thousand. This indicates that a factory can indeed be established and run profitably by weavers themselves.

#### *Fishnet making unit*

According to 1981 survey there are 3 fishnet making unit where 10 family labourers work. The fixed capital is negligible but working capital is about Tk. 10-15 thousand a year. Annual net profit is estimated at Tk. 700. Thus fishnet making can only exist as a part time vocation. However if pisciculture makes an impact the situation may change for the better.

#### *Tailoring*

In Raiganj there are 147 tailoring units, mostly concentrated in hat areas. Three hundred and seventy-six labour work in these units, of them 23 are wage labour. Each unit has fixed asset worth Tk. 2,500 and the operating capital need is small as the tailor customer bought cloth only. Monthly average net income of a unit is Tk. 500. Thus the possibility of expansion of segregated tailoring units is non-existent. However, if they could combine and make use of the imported second hand textile and mill rejects for internal readymade garments market, there could be an opening if it is accompanied by marketing efforts in the village markets.

#### *Jute bailing*

In 1981 there were two jute bailing units. In Raiganj only 1,653 bales of jute are produced. The units have fixed assets worth Tk. 28,500 each and

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earn Tk. 33,000 a year. These units need small amount of operating capital as they are not traders themselves. They employ 20 seasonal labour.

#### *Leather industry*

##### *Leather*

In Raiganj there are five cottage units to process hides and skins as per traditional method. Their fixed assests are valued at Tk. 3,000 per unit but need as much as Tk. 18,000 per unit in season. Each unit earn about 12,000 per unit per year. They employ only family labour.

##### *Shoe making and repair units*

There were 25 such units which employed only family labour. Their net annual income per unit was Tk. 8,000. Because of cheap plastic and rubber shoes now available in market, these unit seem to be facing economic crisis.

However, with appropriate training and organizational support hand made leather commodities can find market which cannot be done by them alone.

#### *Wood processing industry*

##### *Saw mill*

There is only one saw mill in Raiganj. Its fixed capital investment is estimated at Tk. 9,000, its average monthly operating cost is about Tk. 5,000. This unit employs 3 family labour and 1 hired labour. The annual net profit is estimated at Tk. 12,000.

The urbanization process in Raiganj and with improvement in the supply position of timber for local consumption there could eventually be a second saw mill.

##### *Furniture unit*

There are 42 furniture making units employing 121 family labour. Their average fixed investment is Tk. 6,000 and monthly average operating capital requirement is Tk. 3,000. Each unit makes a net monthly profit of Tk. 1,000. Urbanization process is likely to expand the need for such services.

##### *Miscellaneous wood products*

Four units make doors and windows and 62 wage labour work in these units. Their monthly net income is Tk. 1,000. Development activities are likely to expand their activity sphere.

##### *Umbrella handle producing units*

Five units in Raiganj produce umbrella handle with bamboo or wood, 32 family labour work in these units. Each unit is said to earn about Tk. 5,000 per annum after meeting all expenses.

*Toy making unit*

In 2 units 9 family labour work to earn a net profit of Tk. 4,500 annually after meeting all expenses.

*Straw and bamboo processing industry*

*Farmers straw hat making unit*

Only one unit produce this seasonally.

*Bamboo and cane product making unit*

Two hundred and thirteen units employing 4/5 family labour each and earn on average Tk. 6,000 annually.

*Bamboo and cane furniture making unit*

There is only one such unit where 2 family labour work. The net income is reported to be Tk. 8,000.

*Mat making unit*

There are 79 units where family labour work and each is said to earn Tk. 10,000 annually.

*Other industries*

*Book binding*

There is one such unit where 2 family labour work and reported net annual income is Tk. 4,000.

*Imprinting on metal plate*

There are three units that employ 6 family labour. The market seem to have shrunk.

*Pottery*

There are 215 potter household. The family labour number 990. They seem to be facing a shrinking market under competition from aluminium, ceramic, plastics., etc. Only improvement in technology and diversification of product can help them regain parts of it.

*Lime works*

Three families make lime for consumption with betel leaf. The market is small but slowly increasing.

*Jewellery*

There are 21 families who make gold and silver jewellery. The market have shrunk due to increasing incidence of rural poverty. The\*products are made to order. Urbanization and increasing income can rehabilitate them. Alternately a producers guild linked to markets in bigger cities or export units can cause their luck to turn.

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### Miscellaneous

In addition to the above, there are one wool knitting unit, one jute product unit, one engineering workshop and 26 smithy workshops. Of all these only blacksmiths seem to have reasonable amount of work.

### SOCIAL

#### Health

Health care is an element of basic needs. Generally much of the governmental activities in this sphere are urban based. In early days some union councils would run charitable dispensaries. But this arrangement no longer exists. There used to be a sanitary inspector for vaccination purposes. Due to proclaimed eradication of small pox, this activity has also waned. The specific programme workers (e.g., for malaria eradication) no longer have separate presence in the unions.

In Raiganj there is a Thana Health Complex (THC) with a 25 bed hospital. In addition there are two rural health centers (RHC) at Dhubil and Salanga. Four charitable dispensaries and six family planning centres (FRP) are there in these nine unions.

In the health complex there are four doctors and each union has a medical assistant. There are other medical practitioners in Raiganj.

Table-14: Availability of Medical Personnel

| Union        | Trained Medical Practitioner | Palli Chikitsak | Com-pounders | Homeopath | Hekim/Kabiraj |
|--------------|------------------------------|-----------------|--------------|-----------|---------------|
| Ghurka       | 5                            | 2               | 1            | 8         | 8             |
| Dhubil       | 2                            | 3               | 2            | 7         | 8             |
| Dhangara     | 5                            | 5               | 3            | 6         | 5             |
| Pangashi     | 6                            | 6               | 1            | 6         | 8             |
| Brahmangacha | 4                            | 2               | -            | 5         | 6             |
| Chandaikona  | 6                            | 13              | -            | 7         | 9             |
| Nalka        | 3                            | 10              | 1            | 9         | 8             |
| Dhamainagar  | 4                            | 1               | -            | 1         | 1             |
| Sonakhara    | 5                            | 6               | 2            | 7         | 8             |
|              | 29                           | 38              | 10           | 59        | 61            |

Source: Union Council.

As per Bangladesh standard, the availability of health personnel seem to be better than many places. However, most of them are part time practitioners in homeopathy or traditional medicine. Besides there are large number of TBAs. It is necessary to train and integrate them through a scheme of interaction and promoting mutual learning at THC.

The morbidity statistics available from Thana Health Complex indicate that 21% suffer from worm infestation, 15% from skin disease, 12% from fever, 5% from malnutrition, 9% from amebiosis, 7% from urinary tract infection, 5% from ulcer, 3% from tuberculosis, 2% from tumor, 2% from

diarrhoeal disease, 3% from siatica and 1% from gout. However, this does not give complete picture of health problems in the Upazila.

The morbidity information made available from union councils indicate 15% suffer from cholera, diarrhoea and dysentery, 10% from worm infestation, 10%, from skin diseases, 20% from fever, typhoid, pneumonia, 9% from malnutrition and anemia, 9% from ulcer, 9% from chicken pox, 8% from measles, 7% from various female diseases, 1% from tuberculosis and 2% from rheumatism, gout, etc. The number suffering from such diseases are much more than THC records. These seem to be more in line with independent household survey information. However unless family health cards are introduced and maintained properly no reliable information would be available.

In 1982-83 THC treated 38,656 patients in its outdoor departments and 3,430 were hospitalized. At that time in Salanga and Dhubil rural health centres 24,900 patients were attended to. The union council maintains that on average THC and RHCs can attend to 50-70 patients a day and thus at most 21,000 patients are attended to annually and they consider the reported figures to be on the higher side, while actual incidence of morbidity is much higher.

The reasons for ineffective operation of THC are its distance from the unions, inadequate supply of medicine and non-availability of trained health workers. The suggestion is that there should be one RHC in each union.

This seems possible through rationalization of location of 2 RHC and 6 FPCs. The suggestion was to make a medical practitioner visit a school by rotation once a week to give simple health education and examine health status of students and maintain health records. This could be done through Palli Chikitsaks or medical assistants.

Table-15: Distance of THC from Unions

|              |         |
|--------------|---------|
| Ghurka       | 3 miles |
| Dhubil       | 5 "     |
| Dhangara     | 1 "     |
| Pangashi     | 5 "     |
| Brahmangacha | 6 "     |
| Chandaikona  | 4 "     |
| Nalka        | 7 "     |
| Dhamainagar  | 6 "     |
| Sonakhara    | 6 "     |

Patients have complained about inadequate and non-timely supply of medicine in THC/RHC. They also complained about non-availability of

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doctors in time. The doctors seem to be present on rotation and thus the total strength is a misnomer. The equipments are not all functional yet and maintenance/cleanliness of facilities is not upto the mark. On the other hand the villagers do not seem to consult doctors in time due to ignorance and poverty or cultural taboo (particularly in case of female patients). The hospital patients complained about non-attention by nurses. The hospital authorities complained about ignorance of villagers about do's and don'ts in a hospital. Thus there seem to be a scope for public vigilance and education at the same time.

### Potable water and sanitation

Since intestinal complaints is one of the major phenomenon of morbidity, there is a need to improve drinking water and sanitation facilities as a curative health measures. As per government statistics there are 1,366 tubewells in Raiganj. The union council provided the following information.

Table-16: Hand Tubewells (HTW) in Raiganj

| Union        | Ward | Good Condition | Needs Repair | In Public Places |
|--------------|------|----------------|--------------|------------------|
| Ghurka       | 1    | 28             | 3            | 7                |
|              | 2    | 17             | 1            | 5                |
|              | 3    | 30             | 4            | -                |
| Dhubil       | 1    | 25             | 5            | -                |
|              | 2    | 35             | 7            | 3                |
|              | 3    | 40             | 6            | 6                |
| Dhangara     | 1    | 40             | 10           | 2                |
|              | 2    | 48             | 10           | 7                |
|              | 3    | 60             | 8            | 10               |
| Pangashi     | 1    | 63             | 9            | 5                |
|              | 2    | 60             | 3            | 2                |
|              | 3    | 40             | 5            | 1                |
| Brahmangacha | 1    | 45             | 4            | 6                |
|              | 2    | 50             | 20           | 15               |
|              | 3    | 30             | 2            | 4                |
| Chandikona   | 1    | 25             | 2            | 4                |
|              | 2    | 20             | 4            | 1                |
|              | 3    | 20             | 3            | -                |
| Nalka        | 1    | 50             | 20           | 3                |
|              | 2    | 90             | 5            | 8                |
|              | 3    | 41             | 4            | 3                |
| Dhamainagar  | 1    | 45             | 8            | 8                |
|              | 2    | 42             | 4            | 5                |
|              | 3    | 25             | 2            | 2                |
| Sonakhara    | 1    | 30             | 2            | 3                |
|              | 2    | 25             | 5            | 4                |
|              | 3    | 35             | 5            | 2                |
|              |      | 1,036          | 153          | 101              |

Source: Union Councils.

The above information indicates that 15% of tubewells are inoperative. But the more important fact is that common man does not have access to tubewell water. The private tubewells are used by surplus farmers for irrigation and drinking purposes. In order to make safe water available, it is necessary to put and maintain HTW in public places, e.g., union council offices, health centres, mosques, schools, market places. We estimate that in 260 villages at least 520 HTW would be needed. The responsibility for maintenance could be given to the ward member or to the community schools and single repair tools and training for repairs should be available.

In Raiganj there are dug wells, many of which are derelict. Since these are privately owned, these are used very little by others. The union council provided following information about dug wells (DW)

Table-17: Dug wells in Raiganj

| Union        | No. of DW | % of Derelict DW |
|--------------|-----------|------------------|
| Ghurka       | 189       | 35%              |
| Dhubil       | 170       | 36               |
| Dhangara     | 350       | 26               |
| Pangashi     | 173       | 31               |
| Brahmangacha | 290       | 28               |
| Chandaikona  | 105       | 48               |
| Nalka        | 202       | 57               |
| Dhamainagar  | 327       | 58               |
| Sonakhara    | 320       | 25               |

Wherever there is no HTW for public use these dugwells that can be reexcavated and made available for public use, there should be a cooperative effort by villagers to do so. Other derelict ponds and DWs should be closed and regular maintenance of non-derelict ponds and DWs should be undertaken by owners. Workshops in reexcavation and maintenance of dugwell and ponds should be organized in each union at a community school which could be given responsibility for repeating such workshop with the help of union councils.

For health, sanitary latrines are very helpful in preventing common communicable diseases. The 83 survey of 4 unions showed that in 83.5% of households there are no latrines and 15% have unhygienic open temporary latrines, while only 1.5% have sanitary latrines. According to 1976 survey households with sanitary latrines accounted for only 6.35%

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and 2.07% of households had pacca but non-sanitary latrines. According to union councils only 193 household has sanitary latrines and another 251 households had water sealed latrines. In Raiganj there are 31,471 households. Thus only 1.4% of household had hygienic arrangement for latrines. Union councils informed that 24% of households have unhygienic open kutcha latrines and rest 74.6% have no such facilities. At the initial stages all houses with kutcha latrines should be induced to install water sealed latrines and trained to preserve these and keep them clean. Bank loans are available for such facility installation. Such latrines should also be installed in all public places and training in use and maintenances has to be imparted through cooperative and other group associations.

### *Family planning*

The rate of increase of population in Raiganj appears to 3% per annum. This is higher than the national average of 2.4/2.6. In Raiganj density per square miles is 1,753. There are five family planning centres, sterilization can be done in these five places and at THC; MR is done in the five centres and injection for contraception is administered in one centre. The other contraceptive devices (pills, condoms) are available in markets and in the centres. There are 9 family planning assistants (FPA) in 9 unions, 27 family welfare assistants (FWA) in these unions and there are 23 trained TBAs. In Raiganj the number of married couple is estimated at 33,000 of which 90% are considered fertile.

In 1982-83 as per available statistics 386 male and 596 female underwent sterilization, IUD was accepted by 143 female and MR was done by 71 women. The FPA/FWA distributed 13,283 packets of pills and 48,122 condoms in that year. These indicate that acceptance of FP practices is still very limited in Raiganj.

The survey of four unions indicate that 79% of fertile couples practice no family planning methods, 12% does so only occasionally and 8% have accepted such methods, some of them permanent devices.

Even though each ward has a FWA to reach each household, the effect seem to be marginal. This may be due to lack of supervision and lack of communication ability. However TBAs are good communicator in this respect. It is necessary to enlist support of trained TBAs and train the untrained ones for such purposes. In Ghurka it is said that there are 100 such untrained TBAs, in Nalka about 50 and in 7 other unions about 10 each.

It is necessary to enlist support of public leaders. In an effort to do so it may be helpful to place the services of FWA and FPA on deputation under union councils and a member made responsible for reporting. Health and Family Planning card be made compulsory for each household. Initially, such a programme may be undertaken experimentally for one or two unions and extended within five years to all others. In addition birth and death registration law should be enforced without delay. For this a conscientization and awareness programmes be organized through group associations.

#### *Education*

For development education need have a good blend of liberal, life and vocational education. Lack of it is a general problem of educational curricula in the whole country. The centralization of curricula and nationalization of primary schools have taken away the local initiatives in this matter and involvement of public representative is less meaningful now than it used to be.

#### *Literacy*

Raiganj is relatively less advanced in education compared to the national average of the country. As per 1981 Census literacy rate is 15.5, about ten percentage point less than national average. From the survey of 42 villages in 1982, it was found that 79% of heads of families were totally illiterate, 14% read upto primary, 4% upto tenth grades and only 8% had passed the school final examination. The survey reveals that none from 68% of household ever went to a school and in ten of those villages literacy rates were lower than 8%.

The survey also revealed that 100% of female and 72% of male of landless household were illiterate and of the share-cropping household 88% of female and 63% of male were so. Of the fishermen families 78% of female and 56% of male had no knowledge of letters and of the village businessman families 69% female and 37% of male were so. In the families where the heads were in professions 55% of female and 16% of male were illiterate. This evidence tends to suggest poverty is closely connected with illiteracy which in turn reinforces poverty. Thus it is necessary to include income generating activities with formal and non-formal educational efforts.

*Primary school*

In Raiganj there are 79 government primary schools and 30 private but registered ones.

Table-18: Number of Primary Schools in Raiganj

| Union        | Governmental | Non-Governmental |
|--------------|--------------|------------------|
| Ghurka       | 11           | 5                |
| Dhubil       | 8            | 2                |
| Dhangara     | 11           | 3                |
| Pangashi     | 8            | 2                |
| Brahmangacha | 11           | 4                |
| Chandaikona  | 8            | 4                |
| Nalka        | 11           | 4                |
| Dhamainagar  | 6            | 5                |
| Sonakhara    | 5            | 1                |
| Total        | 79           | 30               |

As per government statistics 79 primary schools have 384 teachers and 18,262 students, i.e., each school has 4-5 teachers and 231 students on average. This gives a teacher-student ratio of 1:47.6. There are 55 female students for each 100 male students. The ratio of female to male teachers in these schools is 1:31. The enrolment rate is said to be 50 and as per information available only 75 of 384 teachers are trained.

Ninety per cent of school floors are kutcha, 20% have mud walls or no wall and 20% have thatched roof and more have leaky tin roof. The condition of non-government schools are even worse. There are inadequate number of benches, tables, chairs, blackboards or supplies. The ratio of benches to students is 1:20, in each bench only 4/5 could sit. This indicate that attendance of enrolled students is no more than 20-40%.

Further attendance of teachers in school is alledged to be irregular as most of them do other work and treat teaching as part time vocation. This indicates lack of supervision.

Each school need improvement. The asbestos, jute plastic, or shell construction could be less expensive and ideal. Adequate supply of blackboards, benches and supplies need be ensured quickly. Teachers need be trained, more female teachers inducted. Supervision by ward members in addition to Thana Education Officer (TEO) should be encouraged. A parents forum be organized to voice their needs and wherever possible volunteers for extra-curricular teaching should be

enlisted. The curriculum needs to include community work and some skill formation work in addition to normal curricula.

The schools should be supplied with electricity. The schools do not have drinking water or latrine facility and such facilities need be installed with training in maintenance.

#### *Junior Secondary School*

As per available information there are six junior secondary schools with 865 students and 36 teachers. The teacher-student ratio is 1:24, female-male student ratio is 1:1.4 and female teacher and male teacher ratio is 1:11.

In three unions—Chandaikona, Nalka, and Sonakhara—there are no junior secondary school. Almost all these junior secondary schools have kutcha floor, thatched wall of bamboo or none and tin or thatched roof which is leaky. Except one in Dhangara, adequate number of class rooms are not there and classes are often combined. In these schools adequate number of benches, chairs, tables, blackboards and supplies are not available. The classes are held irregularly and teaching standard is very poor.

These schools require improvement of physical facilities, trained teachers and better supervision. There should be better participation rate and if that is attained, more schools may be needed which could initially be accommodated as a second shift in the improved primary schools. Community vigilance is necessary and community involvement in community work is an inducement to increase community participation in school affairs.

The schools should be supplied with electricity. The drinking water and sanitary facility should be installed.

#### *Secondary School*

There are 12 secondary schools in Raiganj with 3,943 students of which 740 are female. In these schools there are 136 teachers of whom 3 are women and the number of trained teachers is only 15. The participation rate is about 18%. The success rate is very low.

In two unions—Dhamainagar and Brahmagacha—there are no secondary schools. The floor of 75% of these schools are kutcha, walls are of bamboo thatches and roof is made of tin or thatches which are leaky. The number of benches, chairs, tables, blackboards and supplies are inadequate.

The approach for improvement is as suggested in earlier two sections.

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### *Vocational School*

There is only one vocational school in Ghurka with only 15 students and two teachers and this is also not run properly.

The vocational part of education should be integrated with the entire education system and the curricula need have both agricultural and agro-related areas.

The existing vocational school should be used to train and retrain the artisans to improve their techniques and selectively to train few people in new technology (e.g., repair mechanics).

The management of the school should be placed under a committee consisting of public representatives, public officials connected with development work of technical nature and representatives of NGOs promoting transfer/development of technology.

### *Teacher Training*

One of the reasons for poor educational scenario is lack of trained teachers. There is no primary teacher training facility in Raiganj nor is there training facility to train vocational teachers. Secondary school teachers are trained in Teacher Training Colleges. But some in-service teacher training for secondary school teachers in the vicinity is a necessity.

### *Madrassa/Maktab*

There are 24 madrasa with 112 mudarres teaching 3,050 students. Union councils inform that each ward has at least one unrecognized 'maktabs.' These institutions suffer from similar disadvantages as the schools, in addition the religious bias unnecessarily gives lower weightage to liberal and vocational education, if at all.

It is important to take cognizance of these institutions as many more students seem to attend initial classes here. Though change in curricula is a national policy question, since these institutions depend largely on private donations, public awareness may encourage them to adopt general and vocational education along with religious education they impart.

### *College*

There are two liberal arts colleges, one each at Ghurka and Chandaikona. There are 600 students and 32 teachers. The physical facilities are no better than the schools. The performance of these colleges have been poor.

Improvement of physical facility is much needed, including electrification. The library need be stocked with adequate number of text books. The teachers need be trained in pedagogy and in the subject through refresher courses which can only be undertaken at the regional/national level.

#### *Adult Education*

In 29 adult education centres 960 students study under 41 instructors. But the attendance is irregular, instruction is not inspiring. Thus nonformal education should orient its literacy and numeracy programmes towards life and vocational needs to make education more relevant.

#### *Problems of educational institutions*

The union council members and chairmen identified certain problems and suggested some solutions. These are arranged according to priority assigned by them.

- 1) The housing of the school need be improved with adequate number of class rooms, etc. and adequate supply of furnitures.
- 2) Books need be supplied free or at nominal cost in time and in adequate numbers.
- 3) For teaching of science, equipments be supplied.
- 4) Facilities of drinking water and sanitary arrangements be made.
- 5) Electricity be supplied, playground be made available and school health programme be initiated.
- 6) Vocational education be made part of the curricula.
- 7) Training for teachers be made available, supervision be made effective, and more female and non-local teachers be employed.

These are consistent with the observations made in the discussion above.

### **CULTURE AND RELIGION**

#### *Religious institutions*

Like any other part in Bangladesh, there are many religious institutions (227 mosques and 89 temples) which could play useful role in social sectors, e.g., adult education, first aid, rural extension work along with dissemination of knowledge of sanitation and social cooperation. However these need be reorganized as viable social action centres which can only be done by conscious public leaders. That conscientization has to be done through training programmes of Imams and public leaders.

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### Library

There is not a single public library in the whole of Raiganj. The educational institutions do not have these facilities nor have they promoted voluntary study groups. Promotion of library facilities alongside educational institutions and organizing them with bias towards rural organization and development would be a facilitative steps in social transformation.

### PHYSICAL INFRASTRUCTURES

#### Roads

In Raiganj there are 31 miles of metalled road of which 14 miles were built by government, 10 miles by District Council and 7 miles for Nimgachi Fishery Project. The Thana/Upazila Council has not yet built any road.

There are 11 miles of semi-pucca roads of which 10 miles were built by District Council and 1 mile by Thana Council.

There are 206 miles of kutcha road of which 96 miles were built by Union Councils and 86 miles by Thana Councils under RWP and FFW programmes. Zilla Council built 28 miles of kutcha road.

But maintenance of all these roads are a perennial problem.

However, even these 242 miles of road network does not properly or adequately connect the hats with unions. In order to do this following all weather roads need be built.

|     |                     |    |       |
|-----|---------------------|----|-------|
| 1.  | Simla-Ranirhat      | 5  | miles |
| 2.  | Bhuyaganti-Nimgachi | 6  | "     |
| 3.  | Khaichala-Amchara   | 5  | "     |
| 4.  | Ghurka-Salanga      | 5  | "     |
| 5.  | Koyra-Brahmangacha  | 4  | "     |
| 6.  | Amchara             | 3  | "     |
| 7.  | Saratia             | 3  | "     |
| 8.  | Dhangara-Betua      | 3  | "     |
| 9.  | Nalka-Pangashi      | 3  | "     |
| 10. | Dhangara-Koyra      | 2  | "     |
| 11. | Pangashi-School     | 2  | "     |
| 12. | Kodla               | 2  | "     |
| 13. | Nalka               | 1  | mile  |
| 14. | Saliagari Hat       | 1  | "     |
| 15. | Ghurka-Raihati      | 2  | miles |
|     |                     | 46 | miles |

In Raiganj there are 50 bridges of which 10 were built by government, 7 by District Councils and 8 by Union Councils. Another 25 were built on temporary basis by local people. All these need maintenance and many (30) of them require total rebuilding. One bridge at least require urgent

rebuilding of it.

In Raiganj there are 25 culverts of which 15 were built by Thana Councils and 10 by government. These require maintenance. There are at least 7 culverts that are unusable and need repair immediately.

In Raiganj the dominant modes of transport are cycle (1,795), cart (1,187), rickshaw (305), rickshaw van (27) and boat (78). However, most people walk. Better roads would lead to an increase in the number of rickshaw and van. There could be improvement in the design of cart and rickshaw. Rickshaw cooperatives have been organized in Dhubil and Dhamainagar. Similar effort through bank loan in other unions could be helpful. For long distance haul the auto-rickshaw can be slowly introduced which would facilitate connection with distant markets. Banks could take lead in organizing groups for such purposes.

#### *Rural electrification*

Raiganj is under PBS-3 of Pabna. So far the association has provided electricity in 31 of 260 villages.

Table 19: Electrification in Raiganj

| Union        | No. of Members | No. of Villages | No. of Villages Electrified | No. of HH Electrified |
|--------------|----------------|-----------------|-----------------------------|-----------------------|
| Ghurka       | 1,400          | 17              | 3                           | 82                    |
| Dhubil       | 690            | 24              | 4                           | 65                    |
| Dhangara     | 2,675          | 33              | 8                           | 550                   |
| Pangashi     | —              | —               | —                           | —                     |
| Brahmangacha | 200            | 31              | 4                           | 100                   |
| Chandaikona  | 350            | 30              | 6                           | 310                   |
| Nalka        | 50             | 33              | 3                           | 37                    |
| Dhamainagar  | 125            | 39              | 3                           | 45                    |
| Sonakhara    | 600            | 22              | 8                           | 233                   |

Our survey indicates that electricity has generally been provided in offices, market places, and houses of officers and well-to-do. There is persistent demand for electricity, particularly for irrigation. In addition educational institutions, medical outfits, union councils, mosques and industrial units need be supplied with electricity as soon as possible.

In the fitness of things Raiganj should be organized into a separate Rural Electrification Association (PBS) and work should be done on a priority basis.

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### Housing

Housing condition in Raiganj is deplorable and needs improvement. However this is contingent upon employment and income opportunities. Union Council provided the following information on housing .

Table 20: Housing Condition in Raiganj (Percentage)

| Union        | Number | Pacca | Semi-Pacca | Semi-Katcha | Katcha |
|--------------|--------|-------|------------|-------------|--------|
| Ghurka       | 3,754  | 0.5   | 1.0        | 36.5        | 62.0   |
| Dhubil       | 2,040  | 1.0   | 1.0        | 33.0        | 65.0   |
| Dhangara     | 3,100  | 1.1   | 2.9        | 42.0        | 54.0   |
| Pangashi     | 2,348  | 0.5   | 1.5        | 14.0        | 84.0   |
| Brahmangacha | 3,840  | 0.2   | 0.8        | 19.0        | 80.0   |
| Chandaikona  | 2,215  | 1.0   | 7.5        | 23.5        | 68.0   |
| Nalka        | 4,528  | 0.2   | 1.4        | 22.4        | 76.0   |
| Dhamainagar  | 2,660  | 1.0   | 2.8        | 45.2        | 50.0   |
| Sonakhara    | 3,100  | 1.0   | 1.7        | 31.6        | 65.7   |

Source : Union Councils.

These however do not take into consideration the landless homesteadless people who are increasing in numbers.

The survey of 42 villages show that 61.1% of houses were katcha, 31.9% were semi-katcha, 6.9% were semi-pacca and only 0.1% were pacca houses.

There is no housebuilding finance available for rural areas. Garmeen Bank has started it experimentally form members of its groups. Similar effort may be undertaken under group guarantee system for various economic groups by the banks after initial income generating loans show signs of success.

### Rural Organizations

Organizations meet a basic condition for social and economic transformation. Cooperatives or pre-cooperatives have been considered to be a necessary institutional mechanism for rural economic transformation in Bangladesh since days long before Comilla became internationally famous. But cooperatives have played uneven role in various places of Bangladesh and elsewhere. Leadership and true spirit of cooperation are considered basic to the success of any such organizational effort. Such group action is dependent on empathy and equivision of each of the members that guides collective action and programme. Further, cooperatives to be successful,

has to follow the basic discipline of the organization and mobilize resources through voluntary but compulsory savings. In Raiganj the cooperatives do not met these conditions adequately and require quick reorganization.

According to government statistics there are 266 cooperative organizations with 14,378 members of which 165 are women. Union Councils provided the following information.

Table 21: Cooperative Organizations in Raiganj

| Union        | KSS | MSS | BSS | Others |
|--------------|-----|-----|-----|--------|
| Ghurka       | 22  | 4   | 2   | 5      |
| Dhubil       | 19  | 6   | 6   | 2      |
| Dhangara     | 25  | 4   | 1   | 1      |
| Pangashi     | 28  | 3   | —   | 3      |
| Brahmangacha | 16  | 1   | —   | —      |
| Chandaikona  | 18  | 4   | 2   | 2      |
| Nalka        | 35  | 7   | 3   | 2      |
| Dhamainagar  | 22  | 6   | 4   | 5      |
| Sonakhara    | 20  | 1   | 2   | —      |
|              | 205 | 36  | 19  | 20     |

Source : Union Councils.

As per information available 90% of these associations are not functioning well and BSS or MSS are only recently organized. However the recalcitrant indisciplined cooperatives should be weeded out and MSS, BSS, artisan cooperatives, student cooperatives, vocation based cooperatives should be organized through a determined effort. In KSS separate cooperatives by land-holding size may work better. In handloom sector separate cooperatives of loomless weavers, small (upto 5) weavers, and weaver-traders should be organized as their problems as different.

#### DEVELOPMENT STRATEGIES

##### *Basic Consideration for Local Level Planning*

There is no one definitive approach in local level planning. However the approach is dictated by the factors which are taken as given. In our approach the following were certain basic considerations:

- 1) The experience gained through past process of planning has to be consolidated, extended and enriched.
- 2) The participation of people, at least through their representatives in local government institutions and economic institutions (e.g., cooperatives) should be ensured to the maximum extent.

- 3) The plan should at least incorporate programmes in sectors which constitute the delegated subjects and also indicate wherever possible contingent and consistent functions elsewhere as comprehensiveness has certain virtue of its own.
- 4) The local level plan should be consistent with the national policy and objectives as outlined by the government in their own planning exercises.
- 5) Finally, it should be simple enough as to be easily comprehensible and applicable by local level institutions and rich enough to iterate with national level exercises for overall coordination and consistency.

In this context it is of interest to recall some of the features of the government directives:

- 1) "With the present level of expertise and experience in local level project planning and implementation, Upazilas are judged capable not only of implementing development schemes of local nature, but also of managing components of national projects like rural work programme, food for work programme, intensive winter cultivation programme, local fisheries, etc."
- 2) "Some divisible components of other projects which are currently being implemented by the national government are proposed to be transferred to the Upazilas along with the financial allocation for them for implementation". This would be an agency function in development project implementation.

The government further desired that Upazila should maintain Upazila Plan Book in the line that was done for Thana earlier and Upazila "shall prepare Annual Upazila Development Programme". The development emphasis should be on (1) agriculture, irrigation and cottage industry (30-40%) which is to include intensive crops programme, demonstration farms, seed development programme, reclamation of derelict ponds, pisciculture, social forestry, poultry and livestock, drainage, irrigation and embankment, cottage industry, skill development, income generating activities; (2) physical infrastructure (25-35%)-rural works programme, i.e., development of rural roads and small bridges and culverts; development of hats and bazars, storage facilities, community centres, supply of drinking water, village sanitation; (3) socio-economic infrastructure (17.5-27.5%) including development of educational institutions (building, playgrounds, teaching aids, etc.), health care, sanitation, immunization, family planning, social

welfare, sports and culture; (4) miscellaneous (2.5-7.5%), i.e.; birth and death registration, disaster relief, etc. Government however sets a limit of Tk.25 lac for construction project and Tk.10 lakhs for other projects that can be planned at local level.

In preparation of local level plan thus it is necessary to acquaint oneself with objectives and priorities of the national government and also to consider projects under implementation in the area by the national governments. However, unless it is totally contradictory, the objectives and priorities determined by the local level institutions should be given greater weightage. It also makes sense to take up projects that can be quickly completed and costs of which are within manageable limits. The projects which have immediate production potential should be preferred but not to the total neglect of projects that have longrun impact for desired social transformation. Creation of rural employment is a consideration that would deserve serious attention of local level planners in the face of rising poverty and limited employment opportunities.

#### *Strategies for Development of Local Level Plan for Raiganj*

##### *Sensitizing the relevant functionaries*

For LLP it is found to necessary develop to produce training modules for local level planning including concepts, process, data collection, project planning, management and implementation and local level participation. In this phase RDA trainers were trained, survey manual was field tested and certain case studies were developed. However, the national seminar suggested revisions of training manuals and cases. The training course based on these modules also recommended incorporation of further clarity and particularly Bangladesh experience.

The sensitizing process was continued through formulation of large national groups with experience or interest in the local level planning. The ostensible purpose was to translate the concepts developed in the modules in the light of Bangladesh experience and changing government orientation as well as to develop sectoral and institutional case studies to evaluate functional capability of existing institutions and possibility of sectoral/project planning.

##### *Interaction with Upazila officials*

Some members of the LLP team visited Raiganj for indepth discussion with Upazila officials to know about the developmental activities under progress as well as opportunities and constraints in preparation of local level development projects. It became aparent from the discussion that

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given the component of planning and statistical office, a sophisticated planning approach was out of reach though training for scientific project formulation, appraisal, implementation and review would be beneficial in the long run. The officials made their suggestions about sectoral activity.

#### *Bench-mark survey*

It was decided to utilize the survey manual developed and expand the questionnaire to include social aspects and collect information through household census. The basic idea is to develop a comprehensive household social economic information card. This is considered a necessary and useful technique for local level plan. Once the census was done then it would be continuously updated and sample survey conducted in the shortest possible time. The VDP members and school teachers were found helpful in conducting the census under supervision.

The census data along with secondary data helped to develop socio-economic profile of Raiganj. This put against the Bangladesh average (regional average could also be used) identified the areas of weakness. Further, it also identified available resources—land, water, manpower—and current state of their use as well as possibility for better, both intensive and extensive, use.

#### *Development of 'ideas' of activity-mix and interaction with local level officials*

The officials were the first starting point in the absence at that time of elected representatives. Hence it was considered useful to go back to them to test the findings and emerging development activity mix. The discussion refined the findings, helped sharpening of project ideas and indicated priorities of development outlay. It was also easy to see administrative capacity of line ministry officials and degree of commitment to such an exercise. There were skeptics as well as enthusiasts.

#### *Interaction with elected representatives*

The ideas, as modified after discussion with government officials, were developed in greater length and discussed with Union Parishad members and chairmen. It was apparent that twenty years of local level development work basically anchored them to roads, culverts and bridges and there was recent awareness about water. They had little awareness about facilities available, resources mobilizable and new areas workable. In order to orient them beyond roads and irrigation and make them aware of the constraints and possibilities each of them was given a questionnaire in respect of the sectoral activities. They responded slowly but provided useful information upto ward level. They also identified priorities for development work.

*Consultation on a draft plan*

On the basis of information provided by them and secondary information available a draft plan was developed not in project format, but in terms of sectoral actions to be undertaken in the unions. The union council members and Upazila officials were requested to comment on them for modification. On the basis of response received, the modifications were made for finalization of the outline of Raiganj plan.

*Objectives of Local Level Plan for Raiganj*

The basic objective of local level planning is to do locally what can be done locally, i.e., decongestion at higher level, self-reliance at the unit level and help devolution at even lower level. A related objective is creation of nation-wide awareness for development and through this activation of national integration process.

The economic objective is to coordinate development activities in a manner so that increased productive uses of local resources, i.e., land, water and manpower—could be optimized.

The socio-economic objective is to build appropriate physical infrastructure that helps growth of local production activities through increased economic integration for greater benefits.

The related objective is to develop and provide social infrastructural facilities, i.e., education, sanitation, drinking water so as to facilitate development of human resources.

The institutional objective of local level planning is to sponsor, promote and strengthen such social and economic groups that are conducive to perform and take advantage of income augmenting activity potentials and serve to mobilize local financial resources.

The equity objective of local level planning is to undertake target group activities for the disadvantaged or potentially disadvantaged.

The civic objective of local level planning for Raiganj is to help people become useful and productive individuals committed to the betterment of self and the community at the same time through a process of meaningful participation and gradual development of horizontal and vertical integration of groups and communities.

*Priorities in the Local Level Plan for Raiganj*

As mentioned earlier certain priorities are implicit in the government circular that sought to provide guidelines for local level planning. As per that directive the priorities expected/intended allocation seem to be as follows:

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Table 22: Priority Ranking of Local Level Projects as Implicit in the Circular

|     |   |    |
|-----|---|----|
| 1.  | Rural roads, bridges, culverts              | 1  |
| 2.  | Agriculture including extension, seed farms | 2  |
| 3.  | Irrigation and small embankment             | 2  |
| 4.  | Education (primary education in particular) | 3  |
| 5.  | Health and family planning                  | 4  |
| 6.  | Fishery                                     | 5  |
| 7.  | Poultry, livestock                          | 5  |
| 8.  | Forestry                                    | 5  |
| 9.  | Cottage industry                            | 6  |
| 10. | Hat, bazar                                  | 6  |
| 11. | Storage                                     | 7  |
| 12. | Rural water supply                          | 8  |
| 13. | Sanitation                                  | 8  |
| 14. | Skill development                           | 9  |
| 15. | Sports                                      | 10 |
| 16. | Culture                                     | 10 |
| 17. | Others                                      | 11 |

These priorities are not this explicit but derived from an analysis of one year UZ operation and intention of desired changes as got from discussions at the Planning Commission. It should be mentioned that Planning Commission concedes the fact that these allocation priorities would change overtime and may change between Upazilas.

The union council members and chairmen were asked to prioritize their development needs in 5 point scale for each activity and the exercise resulted in following ranking for Raiganj Upazila. (Table 23)

It would be seen that there are inter-union variation in the ranking of sectoral developmental need. But in general it can be said that physical infrastructure including electricity and agricultural inputs including water management have consistently scored higher. However, it may be mentioned that these are traditional areas of development finance and the group responding had no representation of the disadvantaged group, i.e., landless and women. But a lone woman participant emphasized the need for creating income generating opportunities for women unequivocally. It should also be noted that the recent government shift in emphasis in favour of non-crop activities and social infrastructural development is not as strongly manifested by the need ranking of the union council representatives. We had checked the rank score with the government officials at Upazila who seem to agree in general with certain modification in

Table-23 : Ranking of Development Needs by Union Councils

| Union         | RBC | DIG | FE  | AgI | HBM | SF | DPF | BF | HP | AH | SCI | HL | THC | RHC | FPW | VWS | SL | PE | VE | TTE | SE  | FE | HE | HH | O  |
|---------------|-----|-----|-----|-----|-----|----|-----|----|----|----|-----|----|-----|-----|-----|-----|----|----|----|-----|-----|----|----|----|----|
| Guruka        | 14  | 15  | 20  | 19  | 8   | 7  | 6   | 10 | 6  | 9  | 14  | 0  | 10  | 7   | 10  | 15  | 15 | 11 | 9  | 7   | 10  | 13 | 13 | 14 | 12 |
| Dhulki        | 18  | 18  | 16  | 16  | 8   | 6  | 10  | 10 | 5  | 10 | 10  | 0  | 11  | 10  | 9   | 16  | 11 | 8  | 7  | 6   | 11  | 16 | 5  | 14 | —  |
| Dhangara      | 18  | 14  | 17  | 15  | 10  | 8  | 12  | 9  | 7  | 14 | 15  | 10 | 12  | 6   | 16  | 13  | 12 | 11 | 8  | 6   | 10  | 9  | 5  | 15 | —  |
| Pangashi      | 16  | 15  | 9   | 16  | 8   | 7  | 5   | 5  | 6  | 7  | 9   | 5  | 10  | 10  | 12  | 12  | 6  | 8  | 6  | 7   | 10  | 8  | 5  | 7  | —  |
| Brahmanagacha | 16  | 13  | 16  | 17  | 10  | 8  | 5   | 4  | 9  | 10 | 8   | 11 | 9   | 16  | 15  | 14  | 10 | 11 | 9  | 8   | 10  | 10 | 0  | 6  | —  |
| Chandalkona   | 18  | 17  | 15  | 16  | 7   | 8  | 0   | 8  | 7  | 6  | 11  | 1  | 12  | 12  | 7   | 11  | 5  | 8  | 5  | 7   | 15  | 8  | 15 | 8  | —  |
| Nalka         | 16  | 17  | 12  | 15  | 11  | 7  | 5   | 7  | 8  | 5  | 12  | 9  | 12  | 16  | 13  | 9   | 7  | 11 | 11 | 6   | 14  | 9  | 0  | 9  | —  |
| Dhamanagar    | 19  | 15  | 11  | 14  | 11  | 10 | 6   | 8  | 6  | 6  | 9   | 0  | 10  | 15  | 12  | 9   | 6  | 11 | 12 | 6   | 10  | 10 | 5  | 9  | —  |
| Sonkhara      | 14  | 17  | 14  | 15  | 6   | 5  | 7   | 7  | 5  | 7  | 16  | 0  | 11  | 14  | 8   | 9   | 7  | 19 | 17 | 9   | 13  | 7  | 3  | 10 | —  |
| Total         | 149 | 141 | 133 | 143 | 79  | 66 | 56  | 68 | 59 | 74 | 104 | 36 | 92  | 105 | 102 | 108 | 79 | 98 | 84 | 62  | 103 | 90 | 51 | 92 | 12 |

Note : Maximum possible score is 20; higher the score, higher is the ranking.

|     |   |  |     |   |   |
|-----|---|--|-----|---|---|
| RBC | = | Roads, bridges, culverts                           | RHC | = | Establishment/improvement of rural health centres   |
| DIG | = | Drainage, irrigation, sluiceway                    | FPW | = | Intensification/improvement of family planning services                                   |
| RE  | = | Rural electrification                              | VWS | = | Village water supply (HTW)  |
| AGI | = | Agricultural input supply                          | SL  | = | Sealed latrine  |
| HBM | = | Hat, bazar, market development                     | PE  | = | Development of facilities for primary education including making curricula skill oriented |
| SF  | = | Social forestry including backyard tree plantation | VE  | = | Vocational education for income generating activity                                       |
| DPF | = | Derelect pond recovery for pisciculture            | TTE | = | Teachers training facility at Raiganj   |
| BF  | = | Backyard fishery                                   | SE  | = | Development of secondary education  |
| HP  | = | Household poultry farming                          | FE  | = | Facilities for female education   |
| AH  | = | Animal husbandry service                           | HE  | = | Development of higher education   |
| SCI | = | Small & cottage industry development               | HH  | = | Improvement of housing  |
| HL  | = | Development of handloom                            | O   | = | Development of other facilities, (e. g., banks, post offices, etc                         |
| THC | = | Improvement of services at Thana Health Complex    |     |   |   |

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favour of a township and some high quality educational facility. They equally emphasized development of communication and electrification. Agriculture in broad sense was their priority as well.

In this exercise no attempt was made to prioritize individual projects within or between sectors. It is indeed possible to rank them by social profitability criteria or benefit-cost ratio. These require more sophisticated treatment than that is at present available at Raiganj Upazila. Initially it is easier to use the broad guidelines of the government for sectoral allocation and make marginal adjustment with the help of revealed expectation of benefits as shown by preferential ranking scores. This is what was done for sectoral ranking above. In doing this higher weightage should be given to the needs of the disadvantaged.

### INSTITUTIONAL AND FINANCIAL FRAMEWORK FOR IMPLEMENTATION OF LOCAL LEVEL PLAN

Upazila is subdivided into unions and unions are subdivided into villages which in a group of 3 or more form a ward and in turn is subdivided into para. For Planning purposes the reorganized unit of locus is Upazila and that for implementation may be a Union. At one point, during the days of Swanirvar Movement, government proceeded to constitute village level unit which was later derecognized. The Administrative Reorganization Committee had toyed with the idea of a ward level organization but to no avail. Hence for our purposes the Upazila Parishad and Union Parishad are relevant locus for consideration.

#### *Upazila Parishad*

With the promulgation of the local government (Thana Parishad and Thana Administration Reorganization) Ordinance 1982, government proceeded to cast Thana Administration in a reformed mould.

In each Upazila, as per provisions of the ordinance, there is to be constituted a Parishad (Council) with a chairman directly elected on the basis of adult franchise, all elected chairmen of Union Parishads, three women members to be nominated by the government, specified (12) government officials, chairman of TCCA and one nominated person. Thus it is seen that the ex-officio and nominated members may form majority themselves and elected members may remain dependent on Thana level bureaucracy; though government officials have no voting rights in the Thana Parishad. The politicisation by national government besides bureaucratisation is a distinct possibility.

*Development functions of UZ Parishad*

The functions of a Thana Parishad include all development activities at that level including preparation of development plans and programmes, implementation, monitoring and evaluation thereof. It has been enjoined in the ordinance that the Upazila Development plans are to be prepared on the basis of union development plans. In turn Upazila Parishad is to provide assistance in the formulation and implementation of Zila Parishad development activities.

In respect of development activities the Upazila has been given responsibility for promoting activities in the areas of health, family planning and family welfare; agricultural activities for maximizing production; educational and vocational activities; livestock, fisheries and forest; rural public works; cooperative movement; socio-cultural activities and employment generating activities. Except by implication government has not delegated functions in respect of industries.

*Functions of the Chairman.*

The chairman is the designated chief executive officer of the Upazila and has powers extended to doing all acts necessary for the discharge of the development functions mentioned above. He is responsible to the Parishad and is directly assisted by Nirbahi Officer.

The chairman is responsible for coordination of all development activities at the Upazila. He is to initiate formulation of policies in development matters, identify project and schemes and ensure timely implementation, monitoring and evaluation of the schemes. He is made specifically responsible for disaster relief, employment generating activities, socio-cultural activities, primary education. To facilitate such functions the chairman has been given powers to implement decisions of Upazila Parishad in respect of taxes, rates, tolls, fees, etc. to receive all amounts on behalf of the Parishad and to incur expenditures within sanctioned budget as approved by the Parishad.

*Upazila Bureaucracy for Development Programmes.*

Upazila has a large contingent of officials, some of whose services are to be provided on deputation to the Parishad by the government. The principal officer is the Nirbahi Officer (UNO) who is said to be the Staff Officer of the Chairman and in that capacity he is to assist in preparing a coordinated development plan and in supervising all development work.

The Planning and Finance Officer (PFO) is to assist the Parishad in the preparation of UZ development plans, monitor progress and expenditure

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reports, arrange periodic reviews of development projects and help the Parishad in formulation, appraisal, implementation, monitoring and evaluation of development projects. The Assistant Commissioner, who performs magisterial functions, also performs functions assigned to PFO.

The Project Implementation Officer (PIO) is specifically concerned with FFWP projects. He is to ensure technical soundness of projects so selected, timely execution of them, verification and release of foodgrains and monitor for submission of progress reports.

The Health and Family Planning Officer (HFPO) is responsible for the management, administration and maintenance of UZHC (THC) and for implementation of all health and family planning programmes including primary health, maternal and child health care, communicable disease control, family planning, immunization, maternal and child health care, prevention and control of epidemics, health education, promotion of safe drinking water, sanitation and nutrition. All these are within the developmental functions of Thana Parishad.

He is to be assisted by Resident Medical Officer (RMO), gynaecological surgical/medical specialists, dental surgeon, medical officer, Upazila Family Planning Officer (FPO) and an Assistant FPO.

UZ Education Officer (UEO) has routine supervision, inspection, administration and training functions and is assisted by an AEO. Expansion of primary education and overall development of schools seem to be only contingent function.

Agricultural Officer (UAO) is made responsible for the management and supervision of planning, implementation and evaluation of agricultural extension programmes as well as coordination of all agricultural development works which inter alia includes distribution of inputs (e.g., fertilizer, seed, equipment and implements), demonstration and propagation of improved methods, excavation or re-excavation of canals for drainage, irrigation, and/or communication, etc. He is assisted by subject matter specialists for crop production and soil management as well as by Assistant Agricultural Extension Officer (AAEO) who helps in planning, implementing and evaluating agricultural extension projects; sectoral officer who sinks, commissions and operates DTWs and Unit Officer who distributes, operates and maintains power pumps.

UZ engineer is responsible for planning and preparation of schemes with estimates for development, maintenance and repair works and

execution of them. He is an advisor to Parishad in all matters relating to construction and maintenance work including bunds and embankment. He is to prepare and maintain UZ Planning Book. He is to maintain liaison with district level officers for execution of construction works within the UZ initiated by national government. He is assisted by an Sub-assistant Engineer for rural works programmes, a Sub-assistant Engineer for public health Engineering including sinking of tubewells, a Sub-assistant Engineer for electrical Engineering works (excluding rural electrification), and a Sub-assistant Engineer for all civil engineering works under Public Works Department.

UZ Cooperative Officer (UCO) is basically an audit, inspection and loan disbursement and recovery person assisted by inspectors. He is to promote discussion for group formation, evaluate activities of different types of cooperatives and arrange training of cooperators for formation and running such organizations.

UZ Livestock Officer (ULO) is responsible for extension, motivation and training of villagers for scientific rearing of livestock and poultry and to prepare activity schemes in this respect including vaccination against diseases, improvement of beds, cultivation of fodder, establishment and maintenance of poultry farms and provision and maintenance of Veterinary aid centres. He is assisted by a Veterinary Assistant Surgeon (VAS).

UZ Fishery Officer (UFO) is responsible for preparation and supervision of fishery production plan on the basis of bio-ecological, socio-economic, and marketing data. He is to arrange training and motivate fish farmers to carry out scientific pisciculture as well as mobilize and coordinate input supplies for such activities.

UZ Social Welfare Officer (SWO) is responsible for overall supervision of the rural social service programme including identification of vulnerable groups (e.g., women, children, youth) to help initiate income generating activities inclusive of skill development. His activity includes mobilizing community resources, programme development and arranging their approval, organizing training including conscientization about family planning, nutrition, and health care and devise ways of utilizing voluntary social welfare agencies.

UZ Rural Development Officer (RDO) is responsible for operation control, supervision and training of TCCA and organizations thereunder. His responsibility extends to supply of inputs and credits to KSS, formation

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of own capital by them, planning for agricultural marketing and implementation of improved techniques in agriculture. The TCCA women programme also forms part of his responsibility. He is helped by an assistant RDO.

UZ Statistical Officer is to provide all assistance to the Parishad with respect to UZ statistics required for UZ development. He is to collect and compile all statistics of all development projects undertaken by the government and NGOs. He is to prepare mouza profile, collect agricultural statistics from sample clusters of plots and households in respect of all major and other selected crops, collect price statistics from hats and bazars and conduct sample survey with respect to cottage industry, establishment, land occupancy, household income and expenditure, rural construction, trade and other non-agricultural activities. He is to compile UZ statistical source book for use of planners and others.

UZ Mass Communication Officer (MCO) is responsible for dissemination of information and for educating rural masses about development activities.

UZ Account Officer is responsible for payment and maintenance of accounts as per government rules and regulations. UZ Revenue Officer (RO) is responsible for maintenance of land records and collection of revenue including disposals of petitions and cases thereunder. UZ magistrate performs magisterial functions in respect of designated acts and powers thereunder. Officer-in-charge of police station is to help Thana Administration to maintain law and order. UZ Ansar and Village Defense Party Officer assists police in this respect. UZ Munsiff performs designated judicial function.

It will seem from this review of Upazila bureaucracy, development planning under FFWP is a participatory process involving union parishad. But in health, family planning, industry and education, there still seem to be dominance of top down process as these sectoral programmes at Upazila level are seen as part of overall national project package. In upazila forestry sector is not represented and this sector is left to departmental organization differently delineated. The planning function in agriculture, livestock and fishery seem to have been by intent given to UZ level officials for preparation of development plans and projects. Similar approach seem implicit in rural development sector under the BRDB administration. There is an overlap of activity with UAO but this has been solved through demarcation of TCCA and affiliated organizations to be under the management control of RDO while UAO performs wider and more general

functions normally the preserve of Ministry of Agriculture and BADC. There is also an implicit overlap of RDOs activity in respect of women with that of SWOs responsibility for organizing vulnerable group. RDO with strong institutional backing and top down plan can approach and motivate the better placed women while SWOs effort is to reach the lower echelons without institutional and limited financial support which often results in frustration. The weakest support in manpower is given to the UAO and unless he can mobilize schools, VDPs and similar agencies, it is not possible for him to provide the expected statistical data base.

However, the integration of NGO/PVO operation within the Upazila Plan can be made through an improved interaction of such agencies with SWO. Further, it may be noted that construction, health and education may have important national components in preparation of Upazila Plan, this need be integrated also.

In addition there are activities which are promoted through bank credit. Agricultural credit for purchase of inputs can be estimated on the basis of government allocations by activities. But credit for activities other than these (e.g., cottage industry, livestock, fishery, housebuilding, etc.) can only be integrated through greater interaction and integration of activity profile between banks and NGO/PVOs on the one hand, SWO and NGO/PVO on the other and finally amongst the three to draw up one year rolling activity plan.

*Committees for selected sectors.*

Government has established three specific committees for planning and execution of programmes for water supply and sanitation, food for works and population control programmes.

The water supply and sanitation committee is chaired by UNO and includes HFPO, engineer, UEO, SAE (DPHE) and concerned chairman of Union Parishad. This committee is responsible for execution of rural water supply and sanitation programme funded by UNICEF and centrally planned and approved by the government.

For food for works programme government formed a UZ Project Implementation Committee (PIC) with UNO as chairman and engineer, SWO, CUAO, HFPO, ULO, RDO, UEO, chairmen of Union Parishads, PIO and Food Inspector as members. This committee is assisted by project committees for each project undertaken under the programme; chairman and secretary of such committees are to be nominated by the PIC with the

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proviso that chairman or member of the project locally may deserve first consideration and that no one person should be member of two project committees. The Union Parishads indentify projects which are then analyzed and collated by PIO for approval of Parishad and Ministry.

For coordination, support, review and evaluation of primary health care, immunization, MCH, and FP programmes government formulated population control committees at village, union and Upazila levels. One of the terms of reference of such committees is to encourage involvement of non-government organizations and formation of women's groups for furtherance of the objectives of the programme. Upazila committee includes besides UNO, HFPO, UEO, UAO, Engineer, UCO, SWO, RDO, USO, MCO, AVDP, chairmen of UP, chairman of Upazila Paurashava, representatives of NGO, MO (MCH-FP) and FPO. The committee has the responsibility of supervision but the power for programme planning lies with the national level.

### *Planning at Union Parishad level*

Union Parishad has a directly elected chairman and three members are elected from each ward. In Raiganj there are nine unions. Each union has nine members and an elected chairman. There are three nominated women members in each union.

There is a limited presence of government functionaries at the union level. The government has planned to involve the UP chairmen in the deliberations of UZ parishad and thus participate in the local level planning at the level.

However, incidental planning and development efforts of rudimentary nature is manifested in food for works programme (i.e., rural roads, small embankment, re-excavation works, etc.) and may manifest in social welfare activities, production plan activities of KSS/MSS under BRDP, and supervisory activities of FP programmes.

But it should be noted that enterprising UP with planning efforts of their own can get better attention from UZ and NGOs.

### *Responsibility Centres.*

It may be helpful to sum up the development planning and implementation process by sectors in order to get a view of the responsibility centres.

Table 24 : Responsibility Centres for Plan Formulation and Implementation by Sectors

[illegible]

Note: I = Implementation, P = Project Preparation, A = Project appraisal, AP = Project approval, C = Overall coordination, RM = Resource mobilization, Im = Implementation, MS = Monitoring, supervision, CS = Community support mobilization, E = Evaluation

*Financial Framework for implementation of development Programmes in Raiganj*

Upazila is a newly altered version of old Thana Council. At the earlier time development activities were funded by government grants and implemented by project committees. At a later stage Thana Development Committee coordinated the TIP, RWP and other activities and finances were made available by the government.

The new Upazila has been given expanded functional responsibility, trained manpower and finance which includes governmental grants and income from taxes, rate and fees livable by the Upazila. These sources of revenue included the following:

- 1) Lease of jalmahal (inland fishery),
- 2) Tax on professions, trades and callings,
- 3) Tax on dramatic and theatrical shows,
- 4) Street lighting tax,
- 5) Fees for fairs, exhibitions, etc.,
- 6) Fees for license and permits,
- 7) Tolls for services and facilities maintained and
- 8) Lease money from hats and bazars.

It is difficult to foresee the revenue potential of these. However, it has been surmised that the most promising sources are tax on professions, trades and callings, and lease money from hats, bazars and jalmahal. The fees for license and permits and tolls for facilities maintained may develop into major sources of revenue with growth of economic activities at a later stage.

In an exercise done it has been estimated that taxes on trades may be levied at following rates:

Table-25: Proposed Tax Rates

|  |           |         |
|--|-----------|---------|
| 1. Godown and arath                              | Tk. 50    | Monthly |
| 2. Regular shops (excluding hawkers)             |           |         |
| Big  | TK. 25    | Monthly |
| Small  | TK. 12.50 | Monthly |
| Hotel and restaurant                             | TK. 25    | Monthly |
| Saloon and Laundry                               | TK. 12.50 | Monthly |
| 3. Cinema hall                                   | TK. 500   | Monthly |
| 4. Industries with 25+workers                    | TK. 50    | Monthly |
| Industries with less than 25 workers             | TK. 25    | Monthly |
| 5. Rickshaw                                      | Tk. 20    | Monthly |
| Auto-Rickshaw                                    | TK. 50    | Monthly |
| Bus, truck, launches                             | TK. 500   | Monthly |
| Cycle  | TK. 10    | Monthly |
| Boats  | TK. 25    | Monthly |
| 6. Rate chargeable for enlistment of contractors |           |         |
| a) 1st class                                     | TK. 200   | Monthly |
| b) 2nd class                                     | TK. 150   | Monthly |
| c) 3rd class                                     | TK. 100   | Monthly |

The lease of hats and bazars could bring on average about 2,000 each per hat/bazar per week from auction. The leasing of jalmahals (ponds) could bring on average Tk. 5,000 each monthly. Beels could bring additional revenue.

Tax on professional practitioners (doctors, lawyers, etc.) at the rate of Tk. 100 per month also would raise some revenue.

But even then potential for large revenue from these sources are limited.

A better potential lies in the land development tax which is now levied by the national government. Currently government collects such tax at the following rate:

- 1) for agricultural land:
  - a) Tk. 0.03 per decimal on holding not exceeding 8.25 acres
  - b) Tk. 0.15 per decimal on holding exceeding 8.25 acres.
- 2) Non-Agricultural land within specified police stations (developed areas)
  - c) Tk. 15 per decimal for land in commercial or industrial uses
  - d) Tk. 3 per decimal for land in residential or other uses
- 3) Other land:
  - e) Tk. 3 per decimal for land in commercial or industrial uses
  - f) Tk. 1 per decimal for land in residential or other uses

The rates have been further augmented.

In order to augment revenue, either the rates could be augmented or further stratification could be made. For example for agricultural land Tk. 0.05 per decimal could be made for holding not exceeding 2.5 acres, Tk. 0.10 could be levied on a holding exceeding 2.5 acres but less than 8.25 acres, Tk. 0.15 could be levied on holdings above 8.25 but less than 10.00 acres and for holding above that rate should be Tk. 50. For non-agricultural land in specified police stations which should gradually include all Upazila as the township develops the rate for industrial and commercial establishment should be raised to Tk. 25 per decimal. For residential ones differentiation should be made by structures and occupants. Modern concrete structures with urban amenities for rental purposes may be raised to Tk. 25 per decimal, for kutcha residential structures inhabited by owner it may be kept at Tk. 3.00 per decimal. Such augmentation would then increase the yield by about 100% and sharing between union, upazila and national government should be 25, 50 and 25% of the proceeds from the respective union and upazila. This would require development efforts to

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improve facilities in unions and Upazila to justify such increases. In addition, as is the case with Zilla Parishad, property transfer tax of the region should be returned to Upazila Parishad, particularly with eventual abolition of Zilla Parishad.

Government has been making block grants to Upazilas to undertake activities in delegated developmental areas. This was raised to Tk. 5 million for Upazilas and is promised to be raised further. Even before this there were grants to Thana Councils for RWP and FFWP. These grants were in the nature of relief programmes for the poor. But these grants did not provide an adequate revenue growth for local governments, these were not equitable between locations, these did not induce local governments to raise own revenues nor did they promote budgetary discipline and the programmes under these grants did not manifest a sustained growth characteristics.

The distribution of RWP funds is a function of activity mix chosen by the Planning Commission for a particular year, type-mix of local governments by the ministry, population and land area of selected local government areas and special considerations. Thus it is difficult to predict the amount to be available. However trend analysis shows that RWP grants is significantly correlated with population but there is somewhat built-in bias for less populated areas. However RWP has not encouraged local level revenue mobilization.

FFWP, started as a relief operation, has now taken more of the development orientation. This programme aided by WFP, USAID/CARE and bilateral donors, is now larger than RWP programme. The resources are allocated on per-capita basis adjusted for degree of distress. But the programme has required no generation of local resources contribution. Now the programme is planning to require matching allocation by local resources.

In general there has been an erratic pattern of growth of grants to all local bodies including Thana (Upazila). Between 73/74 and 80/81 it is seen that grants to local governments fell as a proportion of GDP and total government outlays since 83/84 this has increased. Thus the increase in resource mobilization by the national government did not automatically allow a larger share of the increase to local government. It is to be recalled that Upazila Parishads are almost totally dependent on the grants for development activities. A non-increase in real resource grant actually enforces a lower level of developmental activity.

Given these observations, we can make an estimate of annual resource availability at Raiganj Upazila for a meaningful Upazila development plan.

Table 26: Resources for development.

|    |                                  |                     |                   |
|----|----------------------------------|---------------------|-------------------|
| A. | Local taxes                      |                     | Tk. 1.0 million   |
|    | Share taxes                      |                     | Tk. 2.0 million   |
| B. | Grants                           | Normal & ADP alloc. | TKk 7-20 million  |
|    |                                  | FFW-RWP             | Tk. 4-8 million   |
| C. | Development credit from banks    |                     |                   |
|    | available to groups in           |                     |                   |
|    | the Upazila                      |                     | Tk. 10-25 million |
| D. | Local and foreign NGO operations |                     | Tk 3-6 million    |

*A suggested Size, Sectoral Allocation and Sources of Fund for Raiganj Development Plan.*

It is difficult to speak of the size of the plan as it is directly linked with the time-phasing of the sectoral activity. In the prototype of phasing a ten-year perspective of identified activities wherever necessary has been taken while in others it is usually 5 years and on others it is even less.

Appendix-1 : Size, Sectoral Allocation, Time Phasing of a Prototype Plan for Raiganj (Tk. million)

| Sectors   | Source of Fund | FY 1 | FY 2 | FY 3 | FY 4 | FY 5 | FY 6 | FY 7 | FY 8 | FY 9 | FY 10 | Total |
|---|----------------|------|------|------|------|------|------|------|------|------|-------|-------|
| 1. a) New roads-46 miles  | RMP            | 15   | 20   | 25   | 30   | 35   | 40   | 45   | 50   | 55   | 60    | 375   |
| b) Repair & maintenance of 206 miles of road                          | RMP/FTW        | 10   | 15   | 20   | 25   | 30   | 35   | 40   | 45   | 50   | 55    | 325   |
| c) Repair of culverts & bridges                                       | ADP            | 05   | 05   | 05   | 05   | 05   | 10   | 10   | 10   | 10   | 10    | 75    |
| 2 a) 20 miles of irrigation canals                                    | RMP/FTW        | 10   | 10   | 10   | 10   | 15   | 15   | 15   | —    | —    | —     | 95    |
| b) Drainage from 10 beels   | FWP            | 05   | 05   | 05   | —    | —    | —    | —    | —    | —    | —     | 95    |
| c) Water use planning   | ADP            | 02   | 02   | 02   | —    | —    | —    | —    | —    | —    | —     | 15    |
| 3 a) Trade pumps to small farmers (2,500 a year on average)           | BKB/NCB        | 25   | 25   | 25   | 30   | 30   | 30   | 35   | 35   | 35   | 35    | 240   |
| b) Storage of spare parts & a cooperative workshop & agri. implements | ADP/BKB        | 10   | 10   | 10   | —    | —    | —    | —    | —    | —    | —     | 30    |
| c) Fertilizer godown of 100 ton capacity in 7 remaining unions        | ADP/BKB        | 05   | 10   | 20   | —    | —    | —    | —    | —    | —    | —     | 35    |
| d) Seed multiplication farms for major crops                          | ADP            | 02   | 03   | 04   | 05   | 06   | —    | —    | —    | —    | —     | 20    |
| e) Seed storage in 9 unions   | ADP            | 010  | 020  | 025  | 035  | 010  | —    | —    | —    | —    | —     | 10    |
| 4 a) Draft animal supply (@ 20,000 )                                  | BKB/NCB        | -20  | 30   | 35   | 40   | 45   | —    | —    | —    | —    | —     | 170   |
| b) Strengthening of agricultural extension including training         | ADP            | 023  | 026  | 029  | 032  | 035  | 038  | 041  | 044  | 047  | 050   | 365   |
| 5 Improvement of haats & bazars (net of revenue)                      | SWP/BKB        | 20   | 175  | 150  | 125  | 100  | —    | —    | —    | —    | —     | 75    |
| 6 a) Thana nursery  | ADP            | 01   | 02   | 02   | —    | —    | —    | —    | —    | —    | —     | 05    |
| b) Union sub-nursery training   | ADP            | —    | —    | 01   | 01   | 01   | —    | —    | —    | —    | —     | 03    |
| c) House/old forestry   | Own            | 06   | 06   | 06   | 06   | 06   | 06   | 06   | 06   | 06   | 06    | 60    |

08

Appendix-1 Continued

|     |   |                   | 10  | 10   | 20  | 30  | 50  | 60   | 70   | 80   | 90   | 100  | 520 |
|-----|---|-------------------|-----|------|-----|-----|-----|------|------|------|------|------|-----|
| 7.  | a) Organizing livestock coop in 260 villages                              | BKB               | 10  | 10   | 20  | 30  | 50  | 60   | 70   | 80   | 90   | 100  | 520 |
|     | b) Veterinary aid centres in 9 unions with medicine & training programmes | ADP               | 01  | 01   | 01  | 01  | 01  | —    | —    | —    | —    | —    | 05  |
|     | c) Breeding farms for poultry & livestock                                 | ADP/BKB           | 03  | 04   | 03  | —   | —   | —    | —    | —    | —    | —    | 10  |
|     | d) Animal feed cultivation & production                                   | ADP/BKB           | 05  | 05   | 05  | 05  | —   | —    | —    | —    | —    | —    | 20  |
| 8.  | a) Reclamation of derelict ponds, formation of cooperative & training     | ADP<br>NCB<br>BKB | 02  | 025  | 030 | 035 | 010 | —    | —    | —    | —    | —    | 10  |
|     | b) Backyard fishing   | Omn               | 10  | 15   | 20  | 25  | 30  | 3.5  | 4.0  | 4.5  | 5.0  | 5.0  | 320 |
| 9.  | a) Small & cottage industry   | BSC/IC/NCB        | 025 | 050  | 075 | 10  | 10  | —    | —    | —    | —    | —    | 3.5 |
|     | b) Handloom   | BHB/NCB           | 10  | 15   | 15  | 20  | 20  | 25   | 25   | 25   | 3.0  | 3.0  | 215 |
|     | c) Sericulture  | BSE/NCB           | 10  | 0.75 | 050 | 050 | 050 | 050  | 0.40 | 0.40 | 0.30 | 2.25 | 51  |
| 10. | a) Improvement of THC   | ADP               | 010 | 010  | 015 | 015 | 020 | 020  | 025  | 025  | 025  | 025  | 19  |
|     | b) Strengthening of RHC in each union                                     | ADP               | 10  | 10   | 20  | 25  | 25  | —    | —    | —    | —    | —    | 90  |
|     | c) School health programme  | ADP               | 10  | 10   | 10  | 10  | 10  | —    | —    | —    | —    | —    | 50  |
|     | d) Training of TBA, community personnel, etc.                             | ADP/NGO           | 01  | 01   | 01  | 01  | 01  | 01   | 01   | 01   | 01   | 01   | 01  |
| 11. | e) HH health card   | ADP/UNICEF        | 001 | 001  | 002 | 002 | 002 | 0.03 | 0.03 | 0.03 | 0.03 | —    | 02  |
|     | a) Repair of HTW  | ADP/NGO           | 001 | 002  | 003 | 004 | 005 | 001  | 001  | 001  | 001  | 001  | 020 |
|     | b) Sinking of HTW in public places  | ADP/NGO           | 01  | 01   | 01  | 01  | 01  | —    | —    | —    | —    | —    | 050 |
|     | c) Training of local people in repair                                     | ADP               | 01  | 01   | 01  | 01  | 01  | —    | —    | —    | —    | —    | 050 |
| 12. | d) Reexcavation of derelict DW  | UNICEF/NGO        | —   | 01   | —   | 01  | 01  | —    | —    | —    | —    | —    | 050 |
|     | a) Sanitary latrine in all public places & training for maintenance       | ACP/UNICEF        | 01  | 01   | 01  | 01  | 01  | —    | —    | —    | —    | —    | 100 |
|     | b) Sanitary latrine for household   | UNICEF/NCB        | 02  | 02   | 02  | 02  | 02  | —    | —    | —    | —    | —    | 200 |

## Appendix-1 Continued

| Sectors | Source of Fund  | Fiscal Year        |        |        |        |        |       |       |       |       |       | Total  |
|---------|---|--------------------|--------|--------|--------|--------|-------|-------|-------|-------|-------|--------|
|         |   | FY 1               | FY 2   | FY 3   | FY 4   | FY 5   | FY 6  | FY 7  | FY 8  | FY 9  | FY 10 |        |
| 13.     | a) Formation of FP association in each villages<br>b) Improvement of delivery system of FP goods & services<br>ADP                  | 0.025              | 0.025  | 0.025  | 0.025  | 0.020  | 0.015 | 0.015 | 0.010 | 0.010 | 0.010 | 0.19   |
| 14.     | a) Improvement of 260 primary schools including housing, furniture, electricity, books, workshop, 18 secondary schools & 2 colleges | 50                 | 60     | 70     | 80     | 90     | 90    | 90    | 90    | 90    | 90    | 80.00  |
|         | b) Vocational component in all schools  | 10                 | 10     | 10     | 10     | 10     | 15    | 15    | 15    | 15    | 15    | 125    |
|         | c) Improving Madrasa education  | 01                 | 01     | 01     | 01     | 01     | 01    | 01    | 01    | 01    | 01    | 10     |
|         | d) Adult literacy programme in all villages (260 villages, 300 days, 30 at a time at Tk. 1 per head per day cost)                   | 12                 | 12     | 12     | 12     | 12     | -     | -     | -     | -     | -     | 70     |
|         | e) Higher education   | 04                 | 02     | 02     | 01     | 0.01   | -     | -     | -     | -     | -     | 10     |
| 15.     | a) Rural electrification of all possible villages<br>ADP/REB  | 05                 | 05     | 0.75   | 0.75   | 1.50   | -     | -     | -     | -     | -     | 5.0    |
| 16.     | b) Electrification of hais, bazars, public bldgs, schools, etc.   | Included elsewhere |        |        |        |        |       |       |       |       |       |        |
|         | c) Electrification of business units and houses   | 01                 | 03     | 09     | 12     | 15     | -     | -     | -     | -     | -     | 30     |
|         | a) House building loan through group security to individuals who performed well in income earning activity                          | 05                 | 10     | 20     | 20     | 20     | -     | -     | -     | -     | -     | 75     |
| 17.     | a) Target group social welfare activity   | 10                 | 15     | 20     | 25     | 30     | -     | -     | -     | -     | -     | 100    |
| TOTAL   |   | 75.75              | 14.025 | 16.975 | 17.110 | 19.490 |       |       |       |       |       | 425.44 |
|         | ADP   |                    |        |        |        |        |       |       |       |       |       |        |
|         | RMP   | 2500               | 3250   | 4000   | 4750   | 5750   |       |       |       |       |       |        |
|         | FFW   | 1500               | 1750   | 1750   | 1750   | 2250   |       |       |       |       |       |        |
|         | NCB/RKB   | 13550              | 15600  | 22070  | 22170  | 22720  |       |       |       |       |       |        |
|         | NGO   | 3000               | 4000   | 4500   | 4740   | 5500   |       |       |       |       |       |        |
|         | Own   | 0.55               | 1.1    | 1.35   | 1.6    | 20     |       |       |       |       |       |        |

The sources of funds are also indicated. The activities which are normally funded under RWP/FFWP activities are so identified, while activities which can only be funded from Annual Development Plan are so identified. Activities which are being increasingly funded by nationalized commercial banks, they have been indicated as such. And NGO activities are identified given UNICEF and NGO pattern of undertaking. The tables below give both sectoral and over time distribution of a development plan for Raiganj.

Table 27: Annual Phasing of Resource Requirement by Sources

|         | (TK. in million) |         |        |         |        |
|---------|------------------|---------|--------|---------|--------|
|         | 1st Yr           | 2nd yr. | 3rd yr | 4th yr. | 5th yr |
| ADP     | 7.575            | 14.025  | 16.975 | 17.110  | 19.490 |
| RWP     | 2.500            | 3.250   | 4.000  | 4.750   | 5.750  |
| FFW     | 1.500            | 1.750   | 1.750  | 1.750   | 2.250  |
| NCB/BKB | 13.350           | 15.600  | 22.070 | 22.170  | 22.720 |
| NGO     | 3.000            | 4.000   | 4.500  | 4.740   | 5.500  |
| Total*  | 25.925           | 37.025  | 48.295 | 49.520  | 54.710 |

Note: \* Does not tally as double counting between ADP and NGO are not always avoided and own resources excluded.

These are in 83-84 prices.

Table 28: Sectoral Allocation of Development Resources

|  | Total for<br>5 years. | %     |
|--|-----------------------|-------|
| Physical infrastructure (drainage, road, culverts, etc.) | TK. 32.6 m            | 14.4  |
| Agricultural input supply and services                   | TK. 41.45m            | 18.4  |
| Improvement of hats & bazars                             | TK. 7.5m              | 3.3   |
| Forestry   | TK. 6.8               | 3.0   |
| Livestock  | TK 15.5               | 6.9   |
| Fishery  | Tk. 21.5              | 9.5   |
| Industry   | Tk. 11.95             | 5.3   |
| Health & family planning; drinking water sanitation      | TK. 15.38             | 6.8   |
| Education  | TK. 47.50             | 21.0  |
| Rural electrification                                    | TK. 8.00m             | 3.5   |
| Housebuilding  | TK. 7.50              | 3.3   |
| Social welfare   | TK. 10.00m            | 4.4   |
|  | Tk. 225.68            | 99.8* |

\*does not add to 100 due to rounding errors.

These are in 83-84 Prices.

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As to the sources of fund it would be seen much emphasis is on Bank-credit, and ADP allocations which inclusive of RWP/FFW is often higher than Bank credit. NGOs play crucial role in informal but critical sectors. Own resources use is expected to increase with greater development, monetization and development of rural banking in the region.

#### **ACTION PLAN (Cost in 83-84 Prices)**

##### *Agriculture*

##### *Irrigation*

1. Six canals of 20 miles length in total to be implemented through IRWP in 7 years; cost estimated to be Tk. 9.5 million, part of which would be met from PL 480 wheat allocation. The scheme is to be designed and coordinated by IRWP office at Dhaka and implemented under supervision of UZ Engineer of RWP and in cooperation with the respective union council chairman.
2. Drainage from 10 beels in Eastern Raiganj to cost Tk. 1.5 million to be implemented through FFW programme by union councils under supervision of IRWP. Time phase is 3 years.
3. Rationalization of DTW, STW, LLP, HTW, etc. in Raiganj through technical assistance of IRWP and organization of pump cooperatives and Thana Council. This requires preparation of a water-use plan cost of which is estimated to be Tk. 5 million to be met from ADP over 3 years.
4. Distribution of tradle pumps to marginal farmers through bank credit scheme—2,500 in a year, loan amount: Tk. 2.5 million.
5. Storage for spare parts of irrigation equipment and a cooperative workshop to be promoted by BADC/BRDB. The estimated cost of Tk. 3 million is to be met party from ADP and partly from BKB.

##### *Farm Inputs*

##### *Fertilizer.*

1. One fertilizer godown is to be built in each union over five years (2 godowns exist now). These are to be owned and operated by KSS federation in each union. Cost is to be provided by ADP/BKB. Total cost of 7 units is Tk. 3.5 million.

##### *Seeds*

1. Seed multiplication farms is to be established by BADC for different crops over 5 years-costing Tk. 2 million.

2. Seed storage to be done by farmers cooperatives; storage to be built through ADP allocation in each union at the total cost of Tk. 1 million. Certification will be done by BADC.

*Implements and draft animal*

1. Bank loans to buy draft animal and agricultural equipments to individuals on group guarantee basis. The budgeted amount is Tk. 1.7 million which is to be loaned by NCB/BKB.

*Marketing*

1. The hats to be improved and electrification made. This should be done through ADP allocation by Thana Council through special works programme. The management of the hat/bazar be given to landless farmers association (BSS) on yearly contract basis. Banks could provide loan to such associations for initial operations. The cost estimated is Tk. 7.5 million over 5 years. These hats and bazars are to be interconnected.

*Agricultural extension*

1. Union Council shall employ one trained agricultural extension worker whose pay etc. to be reimbursed by the Government. A UZ Agricultural Training Centre to be operated by UAO with the help of RDA, cost of which is Tk. 1 lakh to be provided in revenue budget. The total cost is to be met from ADP allocation. The estimated cost over 10 years is Tk. 3.65 million.

*5-2. Social forestry*

1. UAO to organize a nursery, cost Tk. 0.1m to be given from ADP. This would cost Tk. 0.5 million over 5 years.
2. Each union to develop a sub-nursery; total cost of Tk. 0.3 million is to be given from ADP over 3 years.
3. Each homestead and institution to be induced through various group associations to plant tree for fruit, fibre and timber. They shall buy plants at nominal price. The total cost of Tk. 6 million of 10 years is to be met from own resources.
4. Plantation along the roads be the responsibility of union councils.
5. The extension work is to be done by senior school students.

*Livestock*

1. Each village to organize livestock cooperatives preferably with women; each homestead to raise a combination of hens/ducks, goats /lambs,

### *Ahmad : Local Level Planning*

cows bulls/buffalows. For purchase of animals supervised loan from banks may be arranged. Target: one lakh for each union a year initially or say Tk. 1 million for the first year and gradually increasing over 10 years. Total loan is estimated to be Tk. 52 million over 10 years. This is gross of repayment.

2. UVO to organize training of veterinary aid centres with volunteer from each village school, organization and institutions; estimated cost of Tk. 0.5 million is to be met from ADP.
3. Adequate supply of medicine and feed to be commercially organized by UZ federation of livestock coops. Required seed capital Tk. 1 million to be raised by NGOs.
4. Artificial insemination and breeding centre to be established by RDO; cost of Tk. 1.0 million to be obtained as grant and partly provided through ADP and partly through BKB loan.
5. Animal feed cultivation to be organized by UVO; cost is to be met partly from ADP and partly from BKB. Estimated cost is Tk 2 million over 4 years.

### *Fishery*

1. The derelict ponds are to be reclaimed and given to a group of trained fisherman or coops of landless labour with necessary seed capital for fry, feed, etc. The loan is to be given by BKB/NCB. Total loan would be around Tk 32.0 million. The work may be phased over 5 to 10 years. Such a work would need supervision by UFO and BKB.
2. Fishery extension workers are to be trained from each village from amongst such groups undertaking the project. The training cost would be about Tk. 0.2 million per year and is to borne from ADP.
3. Household backyard fishery is to be promoted in each village through NGO/SWO efforts. The total cost of Tk. 3.5 million is estimated to come from own resources (or bank loans initially).

### *Small and Cottage Industry.*

1. Formation of gur makers cooperatives to improve gur making and establish 9 khandeshwari unit over 5 years. Cost Tk. 10.0 million to be borrowed from NCBs under supervision of BSCIC.
2. To finance establishment of family run biscuit and nun factory in each hat/bazar. Twenty units would cost Tk. 0.5 million. These could be financed by BSCIC/NCB.

3. To finance establishment of rice mill by women cooperatives by BSCIC/NCB, oil mill by kulu cooperatives to be financed by BSCIC/BKB, spice grinding mill by landless cooperatives to be financed by BSCIC/NCB. Each unit would cost Tk. 0.5 million Total cost is estimated to be TK. 3 million over 10 years.
4. Expansion of sweetmeat making and marketing facility through bank loan of Tk. 0.5 million to the group over 10 years.
5. Establishment of ice factory and ice cream factory to be financed by private Bank, Tk. 0.2 million.
6. Bee keeping by women groups, required finance of Tk. 1,000 each, to be established in all the villages over 10 years. Total cost Tk. 2.5 million to be given as loan by NCBs /NGOs.
7. Handloom weavers cooperatives to establish dyeing unit and improvement of group procurement and marketing as well as for power looms; Tk. 5.1m to be provided by NCB through BHB.
8. Expansion of leather goods making units through improvement of design and techniques. Tk. 1 million to be given by NGOs over 5 years.
9. Tailoring cooperatives to establish garment unit for local marketing, Tk. 2 million to be provided by NCBs.
10. Carpenters cooperatives to establish a saw mill at market place would require Tk. 0.5 million to be given by NCB. The group is to be trained to make artifacts for marketing in Dhaka.
11. Other small and cottage industries are to be promoted. Total cost of this sector is Tk. 21.1 million, other than Tk. 5.1m for handloom sector, is to be provided through NCB/BSCIC.
12. Sericulture development would cost Tk. 1.9 million in 10 years.

#### *Social Development*

##### *Health*

1. THC is to be run properly, i.e., full complement of doctors, medical personnel, medicine and supplies to be there. Management to improve. Total cost of Tk. 9 million over 5 years is to be met from revenue budget.
2. Each union has to have rural health centre. Besides the existing two,

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FPCs are to be converted to RHC and RHCs to provide FP services. Total cost of Tk. 5 million is to be met from ADP.

3. In each ward there is a FWP and in each union there is a FPA. But there are other medical personnel including TBA. They are to be trained and retained periodically at THC. Cost (Tk. 0.2 million in 10 years) is to be met from ADP.
4. School health programme to start by a health personnel attending the schools once a week and keeping health records. Cost (Tk. 1 million in 10 years) to be met from ADP budget of government.
5. Household health and family planning cards to be introduced and maintained by trained FWAs. Cost Tk. 0.2 million to be met by NGOs/UNICEF and gradually taken over by the government.

#### *Drinking water*

1. Repair of HTW. Cost: Tk. 0.5 million to be met by NGOs/UNICEF.
2. Sinking of HTW in public place. Cost: Tk. 0.5 million to be met by NGOs/UNICEF.
3. Re-excavation of derelict DW. Cost Tk. 0.5 million to be met from NGO programme/UNICEF.
4. Training of local people for repair of HTW, to be done at union council by NGO/UNICEF.. Cost Tk. 3 lac (they will be supplied with kit).

#### *Sanitary latrine*

1. Each open latrine to be converted into sealed latrine. Cost Tk. 2.0 million to be made available partly as loan from NCB and material cost available under UNICEF scheme may be given as grant.
2. Sanitary latrine in all public place to cost Tk. 1.0 million to be met from ADP/NGO.

#### *Family planning*

1. Formation of family planning association in each village and training in dissemination of knowledge. Cost Tk. 0.19 million is to be met from ADP.
2. Propagation of FP through all group activities and income generating activities.
3. Ensuring proper delivery system, management and supervision of THC, FPC./RHC-training cost (Tk. 0.5 million) to be met from ADP, and provided under health sector.

*Education:*

1. Improvement and repair of one primary school in a village, one secondary school in a union and two colleges in the Thana including supply of furniture, fixture, books, equipments, and electrification. Cost is given below.
  - a) 260 primary schools-Tk. 50 million
  - b) 18 secondary schools-Tk. 27 million
  - c) 2 colleges- Tk. 3 million
2. Establishment of vocational education in all primary and secondary schools would cost Tk. 12.5 million over 10 years.
3. Introduction of integrated education in Madrasa would cost Tk. 1 million in 10 years. But this should get gradually integrated with general education programme.
4. Adult literacy through non-formal education in all villages, Tk. 1.2 million per year (100 per month in 20 villages at Tk. 5 per person per month).

*Physical Infrastructure*

*Roads*

1. Construction of 46 miles of roads is estimated to cost Tk. 37.5 million which is to be met from ADP over 10 years.
2. Repair of 206 miles of road is estimated to cost Tk. 32.5 million which is to be met from RWP/FFW allocations over 10 years.
3. Repair of culverts and bridges is estimated to cost Tk. 7.5 million to be met from ADP.

*Electrification*

1. Formation of Raiganj Samiti. Electrification of each union, all public institutions including schools, mosques and electrification of all villages (and pumps) over 5 years cost: Tk. 9 million. Some of the cost are included elsewhere. Source: ADP

*Housing:* Improvement of housing through bank loan (NCB), Tk. 7.5 million in 5 years.

*Target group social welfare projects specially for women and landless:* Tk. 10 million over 10 years to be financed by NGOs.

*Time Phasing of Action Plans.*

The plan in Upazila has to be a rolling plan. In initial years there would be difficulty in preparation of projects, allocation of funds, approval and

implementation of projects. But the momentum will be gathered overtime.

In this exercise a prototype has been prepared for five years but certain sectors need a longer time to accomplish the task identified. Hence in those sectors 10 years perspective has been kept. However in the sectors where shorter time phase has been shown, it has been so done in the context of currently identified need. The sectors could conceivably pick up new activities in the area or agree to a faster or slower implementation schedule.

The time phasing is contingent upon two things: resources available and implementation capacity. Financial resources as conceived would come from various agencies. Hence this phasing has to met their activity scheduling. Implementation capability depends not only on the officials in the Upazila and elected officials but also on the functionaries of banks and NGOs; but more importantly on the vigilance and commitment of the local people to play their part in organizing themselves and in making the best use at the opportunity that the plan offers. With these prefatory words, a time phasing of action plan is given in Appendix A .

#### CONCLUDING OBSERVATIONS

Local level planning is being currently talked of as a means to correct the ills of central planning. Though it has drawn a lot of attention from the intellectuals and professionals, the planners (Planning Commissions) and the policy-makers in the developing countries like Bangladesh have recently put a mark of recognition of this effective mode and methods in the fourth five year plan. The recognition is visionary without recognition of the difficulties that remain.

There are several reasons for this state of diffidence the professionals of the Planning Commissions. As they are educated in western education system they are more inclined to do modeling, input-output analysis, calculate internal rate of return, benefit-cost ratio, etc. These tools lend sophistication to the usual five year plans they prepare. Bangladesh is no exception to it.

Such a national plan in turn lends easily to donor evaluation and becomes a document for negotiation of development assistance. The integration of local level plan in the nation plan however has remained unclear . The fourth plan does not say much about it.

In order to change development process, it is necessary to change planning process itself. A decentralized planning process that promotes

reflection of local needs may indeed help to disperse the benefits of development geographically and amongst disadvantaged classes. But the change is a political-economic-administrative function.

Local level planning is a relatively new concept. It has not been taught any of the universities of developing countries like Bangladesh. It possibly cannot be taught without developing teaching materials gathered from the field and field testing of the ideas of such planning exercise would be a desired step in the right direction. Local level Planning is a practical subject which can only be learned by doing until such time as materials are developed, formats are designed to collect information, techniques are developed for making the local people interested in planning. In this context a project was undertaken by RDA in cooperation with UNCRD to do just that.

In the process of implementing the local level planning project for Raiganj the following steps were undertaken.

- a) Prepare the Project document by the members of the faculty with technical assistance from the experts from UNCRD.
- b) Train five members of the faculty at UNCRD, Nagoya for preparation of training modules of local level planning.
- c) Test the training modules in a seminar and organise a prototype training class with local level officials and the representatives of the local bodies.
- d) Design survey questionnaire and collect data from the households.
- e) Make visits to Raiganj to collect information from official source, discuss with officials, representatives of local bodies and general public.
- f) Involve the intellectuals of the country in discussing various aspects of local level planning and preparation of 24 case studies.
- g) Discuss the findings of the case studies in a national seminar and present the guidelines of the local level planning in a workshop which was attended by representatives of UNCRD, UNICEF, BARD, Comilla, RDA, Bogra, University of Dhaka, Planning Commission, BIDS, Dhaka, and representatives from Raiganj and the Ministry of Local Government and Rural Development and Cooperatives.
- h) Test the ideas in respect of project package for Raiganj with the officials and the representatives of the local bodies.

- i) Discuss the plan developed on the basis of (h) in the Upazila Parishad of Raiganj.
- j) And then finalize Project Profile by the Upazila Parishad of Raiganj.

The project profiles are in conformity with the guideline given by the Central Government to the Upazila Parishads about the division of responsibilities between Central Government and Upazila Parishads. However, there is no local level machinery to undertake planning on a continuous basis which is necessary not only to prioritise the feasible development project in an optimal manner but also to mobilise human, material, physical and financial resources which calls for effective decentralisation of administration which is currently absent. Hence mere pronouncing it in the Fourth Five Year document would not make it a reality.

## ALTERNATIVE FRAMEWORK FOR THE FOURTH PLAN

MUZAFFER AHMAD\*

### INTRODUCTION

The constitution of the country is the supreme law. Not only all laws but also all actions of the government and the citizens are subject to its provisions. The guiding principles of all governmental actions are clearly spelt out in it. Democracy, social justice, basic human rights and national sovereignty have been given proper recognition as guiding principles in our constitution. The constitution provides assurances to meet the basic needs of all the citizens i.e. right to education, primary health care, housing, earning opportunity, food and clothing in a system free from exploitation of man by man and equality before law also have been provided for in the constitution of the country. A development plan which acts contrary to the provision of the constitution is not only malafide under law but also guilty of creating conditionalities that run counter to the visions of an independent Bangladesh based on the principles of egalite, and liberate, and fraternite.

The framers of the first plan dwelt explicitly with these provisions in the constitution. They were conscious of the fact that rights of the people to govern themselves are not merely a ritualistic political process based on multiparty system but also are based on an economic structure which does not allow dominance of a section of people over others. They realised the fact that without an egalitarian social and economic structure, the political democracy becomes vulnerable. In the context of nationalism, the planners were emphatic that we should take upon ourselves the responsibility of bringing about the cultural, social and economic development without heavy aid dependence to strengthen and maintain national sovereignty and integrity through emancipation of teeming millions in an atmosphere of shared responsibility, freedom of speech and dissent, opportunity for equal participation and cultivation of mutuality of interest amongst all sections of the people. The planners found freedom to live according to one's religious faith without discrimination and persecution as part of the democratic norms and national integration process. Thus secularism was viewed as a logical dimension of democracy, nationalism, equality before

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\* Professor, Institute of Business Administration, University of Dhaka

law, equal opportunity for all citizens and social justice for social cohesion which are essential for modernisation and economic development. The most operative of all guiding principles was socialism in which case the planners warned about the possibility of emergence of an authoritarian social order instead of political and economic emancipation of all people under conditions of property ownership structure which guarantees non-emergence of an exploitative capitalist class and rent-seeking interest groups. It is to be noted that the top planners all left the Planning Commission at the first hint of an emergence of an authoritarian structure under one-party rule and assertion of rent-seeking interest groups under political patronage. Further, the planners explicitly recognised the constitutional commitment of the government. The planners were the first to recognise that a development plan is not merely a technical or an economic document, it is also a socio-political document to enthuse, mobilise and motivate people with a vision and perspective for the nation. It is remarkable because the history of planning in this region under Pakistan regime set no precedent of this nature and after two and a half plan later with the draft fourth plan before us there has been no succession of this realisation either. This is probably a reflection of authoritarian nature of governance. It is easy to hypothesise that the degree of constitutional conformity and accountability of the development plans varies inversely with the degree of authoritarian nature of governance.

#### THE TRACK RECORD OF DEVELOPMENT PLANS.

It is an empirical fact that the track record of planning in Bangladesh is not good. The first plan (73-78) which targetted a real rate of growth of 5.5% in GDP over 69-70 benchmark, achieved only 4.0 percent growth. The achievement of 5.5% growth was calculated on 4.6% growth in agricultural sector GDP, 7.1% in manufacturing, 12.1% in construction, 11.0% in power and gas, 4.1% in housing and 6.2% in service sector including trade, transport, public administration, banking and insurance and professional services. The actual achievement in these sectors over the benchmark was 3.7, -(0.3), 7.7, 22.3, 3.6 and 5.6 percent respectively. Viewed differently, on the basis of 72-73 sectoral GDP, the growth rates during the first five year plan were 4.9, 9.2, 13.2, 14.9 and 7.4 resulting in a GDP growth of 6.1%. This shows that except for the services sector, targets calculated on the basis of actuals in 72-73, were largely achieved despite domestic and international reversals.

The first plan was followed by a two year (78-80) plan. The targetted growth rate was 5.6%, based on a growth rate of 4.1% in agriculture, 7.3% in industry, 17.3% in construction, 15.8% in power and gas, 4.1% in housing, 5.7% in transport, 5.5% in trade, 8.3% in public administration, 8.2% in banking and insurance and 5.2% in professionals services. The achieved growth in GDP was only 3.5% with 1.8% growth in agriculture, 2.3% in manufacturing, 18.0% in construction, 11.8% in power and gas, 4.0% in housing and 4.7% in service sector. The shortfall was primarily in agriculture, followed by manufacturing, utilities and services.

The second plan (80-85) set a target of achieving a growth rate of 5.4% calculated on an expected growth rate of 5.0% in agriculture, 8.4% in manufacturing, 4.8% in construction, 16.0% in power and gas, 3.0% in housing, 5.7% in transport, 5.7% in trade and 5.7% in other services. The actual achievement of growth in GDP was 3.8% with agriculture achieving 3.8% growth and manufacturing 4.8% growth while other sectors achieved an average growth of 3.8%.

The third plan (85-90) again set a target rate of growth of GDP at 5.4% based on an expected average annual compound rate of growth of 4.0% in agriculture, 10.1% in manufacturing, 4.6% in power and gas, 4.9% in construction, 3.7% in housing, 6.9% in transport, 6.11% in trade, and 4.6% in services. The achievement was estimated at 3.8% in GDP based on 1.7% growth in agriculture, 4.0% in manufacturing, 17.4 % in power and gas, 7.1% in construction, 3.3% in housing, 5.9% in transport, 4.9% in trade, and 8.3% in services.

It appears that none of the plans, except possibly the first, came near the targetted rate of growth in GDP. Despite many policy measures agriculture has demonstrated no dramatic break through and manufacturing belied all expectations emanating from privatisation, liberalisation and simplified procedures. The growth in power and gas has been largely aid-incuded despite allegations of inefficiency in the sector and that in service sectors was due to unprecedented expansion of public administration, particularly in defense expenditure, and aid induced trade expansion was also substantial.

In this context, however justified, ability to achieve an average annual growth rate in GDP of 5.0% with present policy package, institutional structure, administrative deviation and non-democratic nature of governance is questionable. This growth rate is premised on an average annual growth of 3.6% in agriculture, 9.1% in manufacturing, 11.0% in

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utilities, 8.8% in construction, 5.4% in transport, 5.1% in trade and related services, 3.5% in housing and 3.9% in public services. Agriculture, without a structural change following from tenurial reforms and assured incentive prices at the doorstep of small farmers, is unlikely to achieve such a modest increase, and managerial efficiency of the institutional system are to be increased fundamentally. Industry facing virtual stagnation, if not decline, is not likely to experience the expected annual growth rate largely because of heavy dependence of sponsored protected investment financing for a slick group of non-entrepreneurs. The expectation is possibly built upon already installed capacity but capacity utilisation is a function of market, skill and finance besides good management. These critical factors donot seem to be favourable. The growth in utilities sector would depend on availability of investment fund from donors which seem to be there in the pipeline, better efficiency in management which is doubtful and efficiency pricing which is most unlikely. The boom in the construction sector would again be dependent on aid flow to these projects which may be there in the pipeline. In transport, the investment for expansion of fleet seem to have slowed down and output would be largely dependent on volume of cargo and passenger; with export slowing down and import remaining at current level in real term and with slower growth of agriculture and manufacturing, the growth in transport sector is likely to be smaller. The same is true of trade and related services. The private housing in Dhaka city has considerably slowed down and it has not picked up elsewhere. One would expect a slower growth in this sector than under previous plans. The public administration may not be in a position to expand as fast as it did under two previous plans. Thus however desirable it may be to achieve a break through and realise a better than 5% growth, it appears to be out of reach. If the current state continues a more likely rate of growth would be around 3.5%.

### **DO WE NEED A FIVE YEAR PLAN**

This question may be raised from at least two perspectives. The first is the ability of the government to formulate and implement a meaningful development plan. The implementation not only depends on preparation of fundable projects but also ability to fund them in time as well as availability of efficient implementation capacity. Implicit in this is the assumption that the government is capable of preparing and prioritising the sectoral projects and is able to initiate appropriate policies which influence the realisation of public sector plans. This is not the case as experience would tell us. This is also not visible in private sector either.

The second is polemical. Has the triumph of market economy in European Centrally Planned Economics denuded the national planning of its rational? The governmental intervention is called for when market does not function well. Public investment is one kind of intervention and such investments through budgetary allocation, exist in the countries of the high perist of market economy. The mixed economies have always accepted importance of market signals for planning and policy making. In the economies where governments have to play an entrepreneurial role, the plan is a helpful document even when it faces chronic under achievement as it forces the government to evaluate and review its own programs and policies within a time perspective. This however presumes presence of a democratic policy, accountable government and relative independence of planning machinery.

Even when the structure of GDP changes in the desired direction, the structure of asset and income distribution may not change in the proclaimed way. This has been our experience over the last four decades. But for this, lack of recognition of the importance of appropriate institutions and policies while considering production changes, is to be blamed. Further, consideration of economic development including structural change without concomitant changes in political and social structure have inhibited the process and resulted in non-attainment of distributional goals. The Fourth plan does not provide for any conscious mechanism to reverse the trend except pronouncement of concepts of extended self interest, involving NGOs in organising the disadvantaged and local level planning, albeit under conditions of financial dependence on the center, to meet local developmental investment needs. The ideology of extended self interest for spiritual and humanitarian reasons in a primary acquisitive society is a non starter. The NGO programmes, despite their two decades of operation, have not graduated into anything more than a conduit for socio-economic holding operation resulting in prolongation of patron-client relation. The local level planning under current conditions cannot but be another face of centre-periphery structure. Thus the fourth plan lacks the required strength but it is no reason to ditch planning as a whole. However it calls for serious restructuring of investment in favour of education, health, access to economic opportunity and redistribution of income and assets in favour of the disadvantaged.

It appears that the ability to prepare projects in the concerned agencies have dwindled despite extensive and continuous proper training in this

respect. The contradiction between presence of trained manpower for project planning and inability to prepare investable projects is explained by heightened dominance of local indentor lobby and hyperactive consulting group of the donor countries. The second reason lies in simplifying the project proforma which rarely includes adequate information with respect to appropriate financial, economic and social appraisal. The third reason lies in reducing the capacity and authority of the Planning Commission and arbitrary inclusion of projects on command without proper documentation. The fourth reason lies in diversion of resources away from development budget resulting in arbitrary cuts and denudation of plan discipline.

The Planning Commission's authority of periodic review of progress before release of funds have been taken away contributing to decline in realised plan discipline. Time and cost over run of projects have become a norm that has become tour de force. Under these circumstances one may indeed question the value of planning in Bangladesh, be it a five year plan or an annual plan. Unless the administration is geared to honour basic plan discipline, even rolling plan would not be a cure for this and augmented project planning and project implementation capability would not provide us the desired result. Thus we need a plan, but we need the commitment of the men in the corridors of power to the plan and its can only be ensured through a democratic political process which creates responsibility and accountability centres and which makes all, including administration and power elite, answerable to the people. In a non-legitimate authoritarian centralised decision-making system where one person in supreme and no check and balance exist, the plan is a formality and it is a commitment to donors who can hold the government to task through refusal of aid but they are also subject to their own export-consultant-NGO lobby. Thus the donors should not encourage and/or accept a plan that is basically an agglomeration of current and expected projects, they should require this aid-dependent government to plan for development of people at large i.e. accord priorities in effect to elimination of illiteracy and ill-health and provision for meeting the basic needs, creation and/or enhancement of productive skill in all people above 10 years of age, eradication of inequality in access to social and economic opportunities and production assets including finance, elimination of conditions which perpetuate unemployment and poverty and meaningful participation in and control of governmental decision-making by the people. The success of a plan and *raison-detre* for funding by donors should be premised on these in addition to acceleration of growth and growing self-reliance. When national

sovereignty is defacto non-existent such a lobby has become essential to establish people's right as a supportive arm to the democratic movement.

#### APPROACH AND PHILOSOPHY

The fourth plan does not directly ask the question such as growth for what, for whom and for what amount and why even though poverty alleviation and self-reliance have been pronounced as objectives of the plan. The strategy of the fourth plan has been summed up as decentralized participatory planning, integration of group based planning with sectoral plan, community involvement in rural development project implementation and creation of an efficiency culture. The purpose is to substitute bottom-up planning through participation and involvement and increased productivity from reduction of wastage. These are held together by the philosophy of extended self interest which would inspire people to control his self centred weaknesses and overcome his knowledge based and system based inadequacies so as to be willing and able to contribute to greater welfare of the community as a whole. This in a sense is refreshing as this is a deviation from technical approach to economic planning which is concerned only about optimisation, minimisation and maximisation. But the fourth plan document does not show how these concepts and strategies are reflected in the sectoral plans. Except that it indicates that public sector investment plans prepared in isolation from other sectors with heavy construction component, high tied aid dependence, little scope for acquisition of know-how, and thinning out of inadequately available local resources are in dire need of rationalisation through integration of projects in annual plans for maximum interlinkages, increasing the social-sector content, and prioritising projects to benefit the disadvantaged. These are all good wishes but is vague.

The fourth plan promises the development of a dynamic private sector through removal of bias which favours rent seeking interest group, targeting credit to poorer household, increasing access of enterprising class to economic opportunities through restructuring of regulatory measures, policies and institutions, and creation of interlinkages within the private sector. These are again prayers but not distinctly defined approaches. The fourth plan merely recognised the work that has been done by NGOs either because of a high sense of compassion for the poor or because of a commitment to alleviate deprivation. It does not spell out how NGO activities would be integrated in the planning process. It only appears that the plan would now give credence to this channel and the strategy to integrate this group-based approach into national planning has

not been determined. The fourth plan however in its desire to integrate the uncoordinated developmental activities under various ministries outlines a desire that various village-based interest groups would prepare their action plans which would be coordinated somehow at the village level and then successively into the union level, upazila level, zila level and finally at the national level. The mechanism for this approach has not been spelt out but the role of administration has been underscored. Besides their vagueness, there is a real danger of extending and entrenching a bureaucracy upto the village level. Should we not think twice before we advocate administrative integration of such activities when the dictated philosophy is in favour of small government and growth first approach? Is the planning process going to be privatised and politicised through such a mechanism?

Resistance to growth and transformation comes from the normally debased but politically entrenched group of rent-seekers on which the existence of a non-democratic government depends. Bangladesh society was generally considered free from deep rooted social divisions and class cleavages. Recent policies to promote patronage-based rural power brokers have created these social divisions and class cleavages are getting sharpened, resistance to growth and transformation which empowers the toiling mass of basic producers have emerged. The resistance is likely to get stronger the longer a non-democratic regime persists. Given the nature of ruling power elite, the philosophy and approach of the fourth plan, however vague, are non-strategic ab-initio. One may recall that at the close of Nehru era in India and Ayub era in Pakistan, ascendent and aggressive capitalism made its appearance and their formidable power eroded the moral foundations of the planning process in those countries. Over the last decade a similar thing is happening in Bangladesh under the patronage of aid-dependent government and in this context the moral dimensions of the fourth plan is certainly out of place. Reassertion of moral foundation for poverty alleviation and self-reliance is preconditioned by a populist government, committed administration, and patriotic intelligentsia. None of these exist in Bangladesh. Otherwise one would witness the contradiction between professed ideology of egalitarianism and soulless capitalism both in urban and rural areas as it happened in Pakistan and India in the eighties. It is certain that the cleavage between a non-acquisitive mutually supportive welfare society that was propounded by social philosophers of the main religions of the country and the acquisitive society as espoused by the western materialistic philosophers and championed by donors from the west is clear in the formulation of the fourth plan. This has been made

irreconcilable due to the absence of a break through in the human resource development and a science and technology infrastructure along with emergence of a high consumption society through trade liberalisation, promotion of rent seekers and bureaucratic deviations. Thus the increasingly widening gap between socio-economic goals of development plans and their social consequences is likely to become wider under the fourth plan. The aid dependent politico-administrative system of today is not committed to building a just society through the medium of economic growth and it appears that the basic link between economic growth and development of a just society has been snapped because of centralisation in decision making, non-accountability of the government and non-emergence of a morally strong opposition.

#### GROWTH AS A GOAL OR AS A MEANS OF MEANINGFUL DEVELOPMENT

It is easily conceded that higher growth rate makes removal of inequities easier than otherwise. This statement need be qualified with a proviso that not the aggregate but the decomposition of the aggregate rate of growth is indicative of the feasibility of distributive equity. I have earlier contended that given the current state of social, political and administrative conditions, it is unlikely that the growth rate will accelerate and achieve the five percent growth rate. I would concede that if we could achieve an aggregate rate of growth of even four percent and the content of this growth is such as to be indicative of a break through in the constraints, then we may hope to achieve higher rates of growth in succeeding plan periods.

Take for example the agricultural sector. The growth of production in this sector does not seem to be proportional to investment or input supply. There is no concerted policy initiative to spread the HYV to other crops. The spread of green revolution technology has been uneven amongst the regions and social groups. There does not seem to be any meaningful effort to reduce this imbalance. We are no where near a break through in rainfed agriculture which gives our main produce. We have no planning for taking into account the agro-climatic differences. The managerial inefficiency of the extension system is wellknown. The extension system is ineffective as we have failed to develop differentiated technology packages involving soil and water management, crop varieties and cropping systems. There is no measure taken for meaningful tenancy reform, consolidation of holding and rearranging the irrigation institutions. Under these condition, as the studies have shown, growth in agriculture is largely due to spread of irrigation and available technology. Thus a faster growth in agriculture, which alone can ensure faster growth rate in aggregate, is dependent upon

region by region evaluation of technical and institutional constraints and adoption of an organisational and structural reform which would ensure higher ROI in agriculture. The plan in this respect seem to be banal and have avoided addressing the issues effectively. The content of public sector programme in agriculture remains traditional largely due to significant presence of spillover projects and conventional nature of new projects. It may then be concluded that a break through in agriculture, even when agriculture-led growth has been identified as necessary, is not likely to be achieved even though private entrepreneurship in agriculture is quite visible as has been shown by research studies and small-farmers as the core group cannot become agro-entrepreneurs under current state of affairs.

In the case of manufacturing, the main source of optimism is based on continued liberalisation of private investment, DFI financing and tariff rationalisation policies. The third plan experienced a decline in real terms in private investment in both large and medium scale units as well as in small and cottage industries. Besides, the capacity utilisation remained low due to demand constraint, cost-price squeeze and poor maintenance. Because of domestic demand constraint which would not be eliminated without a break through in agriculture, favourable rural-urban terms of trade and more equitable income distribution, the fourth plan policy consideration is largely directed towards promotion of export industries, even though allocation of funds seem to indicate a greater reliance on import substitution industries. The same contradiction is noticed with respect to labour-intensive small industry and capital intensive easy finance-led large and medium scale industries. A further contradiction lies in the desire to achieve better regional dispersal while all available indication indicates greater concentration of investment around few places. There is clear lack of vision as to technology development and creating indigenous technological capability through development of institutional infrastructure, human resource development, R&D investment and internalisation of technology consciousness through education. Thus the fourth plan strategy for accelerating growth in this sector suffers from inadequate realisation of both constraints and opportunities.

Given the infeasibility of a reasonable rate of growth in two important sectors, alleviation of poverty, unemployment and backwardness would require massive reordering of priority in resource allocation. This would involve dislodging growth for the sake of growth as the prime plan objective. Growth should be a consequence of sustained self-

development of individuals whose productive capacity is augmented through education and training and whose production capacity is made to work through creation of opportunities which opens up market demand for his skill which can be used in a production process whose output has a market. These interlinkages of skill development- production opportunity-market opportunities are fundamental to employment and poverty alleviation with consequential growth. The fourth plan, as has been the tradition, seem to judge all these separately. The underdevelopment is largely due to century old neglect of human resources which has been perpetuated through a cultivated capital scarcity consciousness without recognising the fact that machines and factory buildings cannot produce by themselves. The government is constitutionally committed to right to education and right to work of all citizens without discrimination. Implementation of this through the planning process which would consider attainment of constitutional obligation more strongly and growth as a means to attain these ends directly related to meaningful of life, is therefore a necessity. However, it should be noted that the failure of the fourth plan to rise upto this is basically due to traditionalism in planning, technicalism in modeling and the persistence of the ghost of growth as a panacea of all ills due to the nature of the state which is less conscious of the increasing vulnerability of the large number of people under poverty line.

#### RESOURCE MOBILISATION FOR PLAN

The sources of finance for plan are (1) Surplus from Current Revenues (SCR), (2) Contributions of Public Enterprises (CPE), (3) Additional Resource Mobilisation (ARM), (4) Domestic Capital Receipts (DCR) including small savings, provident funds, loans from financial institutions, sales of assets, drawing down of foreign exchange reserves created from surpluses from balances of payments, (5) Deficit Financing (DF) and (6) Inflow of Foreign Loans and Grants (FA).

##### *The first plan (72-78)*

The first plan had estimated that 20.00 percent of its planned domestic outlay (i.e. Tk. 537 cr) in 72-73 prices would be available as SCR without any change in taxes and tax rates. An additional 23.1%, (i.e. Tk. 625 cr) of total domestic outlay was to be realised through new taxes and increased tax rates. This was based on an estimate that revenue receipts would increase at an annual rate of 5-6% if the 72-73 rate were retained. The additional increase in revenue was to come from a progressive tax structure, rationalisation and increase in rates of duties on imports and

excise duties. The plan assumed that increase in revenue expenditures would be contained within a limit of 10 percent per year during the plan. The assumed tax/GDP ratio was 10% in the terminal year of the plan.

The first plan further assumed that contribution from the public enterprises including financial institutions (CPE) would be on average Tk. 77 crores a year on the basis of an average of 10.3% return on replacement value of assets, income tax on surplus and surplus generated by the enterprises. The assumption was that since BMRE and new investment was to be financed through ADP the public enterprises need not create reserve funds and retain earnings.

The first plan did not specify additional resource mobilisation (ARM) beyond new taxes and changes in tax rates, but assumed that about 4% of planned outlay would be generated from this source.

The domestic capital receipts (DCR) excluding private savings was estimated to contribute 13% of total domestic outlay. This included handing over of depreciation fund by public enterprises at the rate of 4% of value, interest charged to development projects, repayment of past loan by public sector enterprises, sale of abandoned units to private sector, savings mobilised through sales of bonds, debentures, perize bonds and institutional savings. The private savings, which along with institutional finance was to fund the private sector investment outlay was estimated at 720 crores i.e. 26.7% of planned domestic investment. The monetised and non-monetised savings was estimated at 6% of disposable personal income. The first plan also provided for Tk 360 cr (13.3%) borrowing from the banking system to finance the development outlay, of these Tk. 157 crore was to be borrowed by the public sector and this constituted estimated deficit finance (DF) which was planned to be kept small to avoid inflationary pressure. The FA was estimated at 46% of total development outlay.

During the first plan, public sector development outlay of Tk. 393 at current prices was financed by (1) Revenue surplus including additional taxation (SCR) of Tk. 529 crore, (2) a negative contribution from public enterprises (CPE) of Tk. 57 crores, (3) Deficit financing (DF) of Tk. 389 crores, (4) Others including ARM and DCR of Tk. 389 cr. and (5) Foreign assistance (FA) of Tk. 3011 crores. Thus the domestic resources financed only 23.48% of public sector development outlay. Besides this, there was an estimated private sector development outlay of Tk. 714 crores financed by private savings and institutional loan.

*Two Year Plan (77-78)*

On a careful assessment of domestic resource availability and feasible flow of foreign assistance, the two year plan set a target of Tk.3600 cr. as total development outlay of which Tk. 3000 cr. was to be in the public sector. The public sector outlay was to be financed by (1) Revenue surplus including additional fiscal measures (SCR) of Tk. 786 cr. (22%), (2) Capital receipts (DCR) of Tk. 49 crores and (3) the remaining Tk. 2165 (60%) was to be funded through foreign aid (FA). The private sector outlay of Tk. 600 cr. was to be financed through savings (Tk 240 cr) and institutional loan (Tk. 360 cr). The estimate of SCR was based on an improvement of tax/GDP rate from 8.4% to 9.2% based on an estimated annual average increase by 13.7% of tax revenue and 16.5% in non-tax revenue. The two year plan estimated an annual increase in current expenditure at an annual average rate of 10.5% when it actually increased at an annual rate of 25.5% during first five year plan.

During 74/75 and 79/80 the tax receipts increased at an annual rate of 22.0%, non-tax receipts increased by 16.0% and total revenue increased by 20.5% annually. But at the same time revenue expenditure increased by 16.9% annually. This resulted in an increase in current revenue surplus and the rate of increase was 33.5% on an annual basis. The tax/GDP ratio increased from 4.3% in 74-75 to 7.5% in 79/80.

*The Second Plan (86-85)*

Based on these, government estimated an public sector outlay of Tk. 12,553 cr at 79-80 prices during second plan of which only Tk 11,100 cr was to be plan outlay and Tk 1,453 was kept outside the plan for presidential discretion signifying the beginning of the downfall of plan discipline. This outlay (which itself is a revised one) was to be financed by Tk. 2838 cr of SCR, Tk 451 cr of CR, Tk 350 cr of CPE, Tk 1367 cr of ARM, Tk 817 of DF and Tk 6730 (53.6%) of FA. This was based on an expectation of raising tax/GDP ratio to 9.5%, containing public sector expenditures, elimination of all consumption subsidies, rationalisation of tariff, positive interest rate policy to increase household savings and attainment of a reasonable return on investment in public enterprises. The planned revised private investment of Tk 778 cr was to be financed largely through institutional loan amounting to 60% and private savings (40%).

During the second plan (80-85), the shortfall in private sector investment despite liberal institutional credit was largely due to certain institutional constraints as well as shortfall in private savings. There was also shortfall in

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the public sector outlay. In the public sector out of Tk. 11,100 cr an investment of Tk. 9666 cr plan outlay was feasible due to lower than expected average annual inflow of aid which in turn affected tax revenue, slower growth of export than planned which also affected adversely tax receipts. These were partly offset by increased remittances from abroad. Even then tax receipts increased at an annual compound ratio of 14.3% at current prices and non-tax revenue increased at an annual rate of 21.3% giving an average annual increase in revenue of 15.8% at current prices. But revenue expenditure during the second plan increased on an annual rate of 20.5%. Thus the increase in revenue surplus (SCR) was nominal, estimated at an annual rate of 0.4% at current prices which is virtually negative in the face of 11.8% annual rate of increase in consumer level prices. Tax/GDP ratio remained stagnant around 8.2%.

#### *The Third plan (85-90)*

Against this background, the third plan set a development outlay of Tk 38,600 cr in 84/85 prices of which Tk 13,600 cr was to be in the private sector financed through inflow of foreign private capital (Tk. 1988 cr), private savings (Tk 3500) and institutional loan (Tk.8112 cr). The public sector outlay of Tk 25,000 cr was contingent upon Tk 19,040 cr of foreign assistance (FA) which is 76% of total public sector outlay. The balance of Tk 5960 was to be financed from an estimated revenue surplus (SCR) of Tk 4983 cr. and capital receipts (CR) of Tk977 cr. The underlying assumption was that tax revenue would increase at an annual rate of 8.5% and non-tax revenue would increase at an annual rate of 8.0% while the current expenditures were to grow at an annual rate of 3%. This expectation was based on an assumption of "efficient functioning of administration" and "reduction of wasteful expenditures."

The indirect tax receipts at current prices during the third plan increased at an annual compound rate of 14.08% and direct taxes at 16.3% and non-tax revenue at 1.8% while revenue expenditure grew at 19%. Thus the revenue surplus decreased at an unprecedented negative annual compound rate of 65.2% indicating failure to restrict wasteful expenditure and to increase efficiency of administration. The negative revenue surplus has been caused by overrun in current expenditure (63%), shortfall in tax revenue (28%) and shortfall in non-tax revenue (9%).

#### *The Fourth Plan (90-95)*

Given the dismal experience of resource mobilisation, the planners in search of a minimal break through for growth (estimated at 5% growth in real

GDP) has set a plan size of Tk 67,230 cr at 89/90 prices of which Tk 26,500 cr (39.4%) is earmarked for private sector which is to be financed through inflow of foreign capital, liberal institutional credit and private savings. In the public sector, of the total projected Tk. 40,730 cr investment, the FA is expected to be of the order of Tk 30,260 (74.2%). The domestic resource is to account for Tk 10,463 cr (25.8%) of which SCR is to account for Tk7,248 cr, CR for Tk 720 cr, ARM for Tk 970 cr and CPE for Tk 1475 cr. This is based on an annual increase in tax revenue of 9% and of non-tax revenue at 11% while the current expenditure is to grow at 4% annually in real terms which means an increase of 22%, 20% and 15% in nominal terms. The past trend indicators would probably put it at 16, 10 and 20 percent in nominal terms, which would belie all expectation of revenue surplus as is seen from the budget for 90-91. The capital receipts of Tk 500 cr in nominal terms is more reasonable with high inflation and low savings potential. ARM of Tk 970 cr in nominal terms may be realised but CPE of Tk 1475 under current constraints on PE pricing, reward and personnel structure is unrealistic. Even the private sector investment seem to be over optimistic given the present stagnation despite promised further liberalisation of credit, simplification of procedure and further incentive for foreign investment. Thus abinitio the financial targets for investment appears unrealisable, hence the physical targets would not be reached and the growth of GDP would stagnate at best around 3 percent per annum.

#### AN ALTERNATE FRAMEWORK FOR DEVELOPMENT

The basic approach of this framework is to develop human resources and empower the disadvantaged. This would require efforts at the gross root level and dismantling much of the public sector structure. Human Resource Development is to be coordinated with human resource mobilisation for self-reliance through higher productivity, negating the world-view of physical capital development as a pre-requisite for development and of accepting monetised sector as the primary sector of development activity instead of as a facilitating sector which needs to be integrated into still dominant large non-monetised and informal sectors.

If one has to take the local level planning and the desired impact on the poor household seriously, the plan has to indicate not only sectoral allocation but also the level at which the resource would be employed. It is necessary to transfer real resource to village level and to the poor household. In this respect the NGO sector along with private sector has to be specifically identified. Further, to augment resources for development, conspicuous consumption in public and private sector as well as

conspicuous unproductive developmental and non-developmental expenditures in the public and public sectors, have to be curtailed through penal legal measures.

In order to curtail non-developmental expenditures as per all criteria, defense is the prime candidate. The logic for large defense spending for a country like Bangladesh is indefensible as in the ultimate analysis defense capability depends on the strength of the economy and moral of the people. On both these counts our record is dismal. Our armed forces have historically been against development of proper democratic values, norms and institutions and have displayed extravagance in place of austerity. By curtailing the defense expenditure to less than one percent of GDP, the deficit in the current account can be wiped off. To this one should add unnecessary expenditure on visitation of local VIPs and even foreign dignitaries; given the performance and public image, the expenditures on police, ansar, VDP etc become questionable. There is a need for local level efficient law enforcing agency supplemented by voluntary vigilance teams. The ineffective expansion of law enforcing agencies which work against the general interest of the poor people cannot be defended. Similar rationalisation in the top administration is desirable. The growth of bureaucracy around the President is infensible against the presence of a large national secretariat. Even the ministries need rationalisation. Is there a need for food ministry when rationing has become more or less non-existent? Why do we need a permanent relief ministry? Thus it is also necessary through devolution to reduce the size of national bureaucracy. The revenue expenditure should be held down to 8% of GDP of which administration services (including defense) should be no more than 2.0%, economic services about 0.5%, infrastructure around 0.5%, social services, including health and education, around 4.5%, local government about 1%, and others around 0.5%.

In a similar bent, the development expenditure in the public sector could be planned. The social sector should get the priority in allocation. This in the fourth plan should amount to about 4.5% of GDP of which the share of education should be 2.0%, of health and population (with emphasis on primary health) about 2.0% and others 0.5% of GDP. The next should be Infrastructure which could claim about 4% of GDP of which rural roads could be given 0.5%, other roads 0.5%, waterways 0.5%, Railways 0.5%, energy 1.5%, communication 0.25%, and housing 0.25%. The next in importance would be economic services which should not claim more than 3% after vigorous privatisation and liberalisation measures; this should be

accompanied by autonomy, non-intervention and accountability for PE. The agriculture and water resources could get 2% while Industry with emphasis on cottage, small and rural units and STR should get 2%. The administrative services and other miscellaneous sector should not get more than 0.5% of development outlay. Thus the public sector development outlay could be augmented to 13% of GDP which is possible through reduction of current expenditure.

This public sector development outlay would be supplemented by private sector investments and NGO provisions. In the education and health sector one could promote an outlay of 3.0% of GDP through appropriate policy of matching funds and contribution in kinds. In Housing another 3.0% outlay in private sector through planned loan finance and private finance is feasible. In industry, particularly in small industry, 2% outlay can be expected. In transport and physical infrastructure sector an outlay of 2% is similarly within the realm of possibility. Another 3% outlay in agriculture, including irrigation, fishery, livestock, social forestry is not inconceivable. All these needs appropriate institutional setting, proper incentive policy, deregulation and severe restriction on conspicuous consumption.

This means that 13% of GDP would be spent as public sector development outlay and 13% GDP would be similarly spent by private sector. This gives us a total investment of Tk 9069 cr in 89/90 prices including non-monetised investments, when the Fourth plan has proposed an outlay Tk 67230 crores to attain a 5% growth rate in GDP. The difference of 23463 (25.9%) Tk is largely due to non-monetised investment, NGO contribution and according greater role to private sector through policy mechanism.

How can this be financed. If the revenue expenditure is rationalised, there would be 4% of GDP available from current revenue. It is assumed that another 2% can be mobilised from ARM, while DCR and CPE could account for 1% of GDP each. The FA could contribute the balance 4%. Thus the public sector outlay seem to be feasible. The private sector finance would be funded by capital inflow amounting to 3% of GDP for direct investment or for NGO operation, 5% of GDP would come from private savings (monetised and non monetised) and the balance 5% would come from the banking system.

#### CONCLUDING OBSERVATIONS

This optimistic picture in the face of dismal record of the past is based on creation of administrative rationality which values future of the next

generation at a premium and avoids wastage through corruption, deviation, inefficiency, dependency, lack of honesty and integrity. It further assumes a social awareness which demands accountability from each individual and particularly those who are in public offices and spend public money. Further it assumes a political system which upholds democratic values, strengthens practice of democratic norms, propagates participation, rule of law and constitutional accountability through independence of judiciary, legislature and executive which provides for checks and balances against excesses by any arm of the government. These are tall order but without inculcation, internationalisation and practice of values of honesty, integrity, accountability, collective survival and austerity and mutual help for self-reliance, plans by themselves would lead us no where however good may the intentions be. Thus basic pre-requisite of any development plan in Bangladesh is establishment of mutually supportive pro-people systems of institutions at all levels and in all sectors in reality and not in rhetorics. This basic fact should not be ignored in the high level talks, because with these even a resource poor country like Bangladesh can attain a double-digit rate of growth. The fault lies with the leadership, power elite, decision makers, the socio-politico-administrative system which fail to mobilise latent but creative instincts of this large mass of humanity who under properly rewarding production relations can make the transformation a reality. Our past failures in development effort is largely due to lack of appropriate politico-administrative structure and commitment which promoted wrong policies, wrong institutions or inhibited the operation of necessary policies and norms. The fourth plan, for obvious reasons, is silent about these and provides a schema for development to a system which would inhibit its realisation abinitio.

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