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Impact of High Tax Gap and Low Tax-GDP Ratio on Income Inequality in Bangladesh: Emphasizing Inclusive Growth

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Abstract

This study analyses the current challenges that Bangladesh's tax system is facing. It proposes policy recommendations to improve the tax-GDP ratio, reduce tax gaps, minimise income inequality, and promote inclusive growth. The study found that the Gini coefficient, Palma ratio, and Quintile ratio have increased due to the regressive nature of VAT, along with under-reporting, mispricing, high tax rates, excessive tax exemptions, money laundering, tax evasion, and a rigid tax composition within Bangladesh. The challenges have become more complex as Bangladesh has transitioned from a Least Developed Country (LDC) status, with increased foreign interest rates and reduced grants putting a strain on fiscal resources. Against this backdrop, the study recommends comprehensive strategies to strengthen domestic revenue mobilisation, including diversifying the tax base and reforming VAT while improving tax compliance and governance frameworks to foster inclusive growth and mitigate income inequality. Resetting VAT classifications based on consumer classes to ensure social justice is a crucial policy intervention. Lastly, the study recommends vigilant monitoring of the undue nexus among political, business, and bureaucratic entities to combat illicit financial

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activities. These policy recommendations aim to create a more equitable and efficient tax system in Bangladesh, fostering economic development and improving the livelihoods of all citizens.

Keywords: *Tax Gap · Tax-GDP Ratio · Inequality · GINI Ratio · Inclusive Growth*

1.1 Introduction

The national budget is the pragmatic evidence of theoretical fiscal policy. Fiscal policy stimulates real GDP and employment, ensures price level stability, and redistributes income using fiscal instruments, taxation, public borrowing, public expenditure, and other revenues to achieve desired macroeconomic goals.

Bangladesh has achieved global attraction in rigorous economic development and persistent GDP growth except for 2020-21 for COVID-19 deterioration. The annual growth rate of GDP has been 6.5 (approx.) percent for the last ten years, 7.5 (approx.) percent over the previous four years, and 2.38 percent in the 2020-21 fiscal year for the COVID-19 pandemic (Bangladesh Economic Review, 2022). In contrast, according to World Bank data, the gross fiscal deficit is 6.8 percent of GDP in the same period in Bangladesh. It is graduating over LDCs, now in lower-middle-income countries and on the way to developing countries by 2026.

Bangladesh emerged as a new Asian tiger with the 42nd largest GDP and committed to placing itself in a developed club within 2041. HSBC research shows Bangladesh will be the 26th largest GDP by 2030. According to the UK's Centre for Economics and Business Research (CEBR), Bangladesh will place 41st in 2022, 34th in 2026, 29th in 2031, and 24th largest economy within 2036. During this duration, it will cross to countries like Malaysia, Singapore, Denmark, Hong Kong, UAE, Egypt, Norway, Argentina, Israel, Iceland, Austria, Belgium, Sweden, and Taiwan.

Bangladesh achieved MDGs (Millennium Development Goals in 2015) and is on the way to achieve SDGs (Sustainable Development Goals by 2030) and targeted delta plan by the 21st century. Instead, problems and challenges are unlimited for Bangladesh which Myanmar forced Rohingya crisis, COVID-19 deterioration, persistent unfavourable balance of payment, increased public debt, local and foreign, increased debt servicing payment, inflationary pressure, limited diversification in exportable goods and services, natural calamities and climatic change, inequality and corruption, lack of practical education, gender discrimination, and unemployment. To mitigate all the problems, challenges, and prospects, Bangladesh should undertake a big volume fiscal budget, but our capability is not satisfactory as per requirement. That is why excessive expenditures create a fiscal deficit.

Fiscal deficit financing largely depends on internal and external borrowing,

which incurs huge debt servicing payments, and the deficit status worsens to more deficit. The question is why there is such a big deficit. This issue has been focused on in recent years, and much debate has been held among politicians, academicians, researchers, policymakers, and practitioners in Bangladesh.

In Bangladesh, only around 24 lakhs (2.4 mil.) people return their tax file out of the around 50 lakhs (5 mill.) registered TIN holders, which is slightly over1% people pay income tax out of the around 18 crores (180 mill.) people and 45,000 companies out of 213,505 registered companies with the Registrar of Joint Stock Companies (RJSC) submitted tax returns in FY 2019-20 according to NBR.

The government is implementing measures to tackle tax evasion and increase compliance, aiming to achieve its goal of becoming a developed country by 2041 despite challenges such as an unfavourable balance of payment, mounting public debt, and limited diversification in exportable goods and services. To prevent adverse macroeconomic consequences like inflationary pressures, the balance of payment crisis, and debt spiralling, the government is taking steps to manage fiscal deficit financing effectively.

The scenario of direct tax is 31.88%, and another 68.12% is an indirect tax, equally levied on poor and rich people with double taxation regressively. At the same time, tax exemption records 2.28% of GDP, and miss-invoicing is 17.95% of total trade. That is why the tax gap is 7.5%, the highest among 17 Asia-Pacific countries according to the 2018 report of the United Nations Economic and Social Commission for Asia and the Pacific, and the Tax-GDP ratio is 8.9%, the lowest in South Asian countries.

According to the latest World Bank data, developing countries' average tax-GDP ratio is 25.60%, the OECD average is 35%, and the world average is 15.34%. All these scenarios indicate high inequality. The inequality measuring indicator Gini coefficient value was 0.483 in 2018 in Bangladesh, where 0.40 is alarming. Before the COVID-19 epidemic, Bangladesh attained an average annual GDP growth rate of 6.5%. At the same time, the magnitude of inequality also rose, which indicates exclusive growth and the decline of the rights of poor people in society.

Fiscal deficits can be financed through domestic, foreign, or printing money. Excess use of any particular mode of financing of the fiscal deficit has adverse macroeconomic consequences; Viz, seigniorage financing of fiscal deficit can create inflationary pressures in the economy, bond financing of fiscal deficit can lead to a rise in interest rates and turn into crowd-out private investment and the external financing of fiscal deficit can spill over to balance of payment crisis and appreciation of exchange rates and in turn debt spiralling. A large fiscal deficit can sometimes adversely affect the country's economic growth. So, domestic resource mobilisation effectively is a situation demand ahead of LDC graduation,

minimising budget deficit expenses on borrowing and making a self-reliant country. To make an equitable and justified nation, we need effective tax composition with robust compliance and governance to accelerate inclusive growth. The study reveals the impact of the high tax gap and low tax-GDP ratio on income inequality, emphasising inclusive growth in Bangladesh.

1.2 Rationale of the Study

Bangladesh has been a deficit-budgeting country since its independence. Tax is a crucial instrument of fiscal policy, and one of its most important roles is to redistribute income and minimise income inequality. Every fiscal year, we pay huge debt servicing against our internal and external borrowing, sometimes creating inflationary pressure. Last decade, we achieved an annual average of 6.5% GDP growth rate, but our tax gap is very high, and the tax-GDP ratio is constantly hovering around 7%-9%. Tax exemption, tax evasion, mispricing, money laundering, and VAT are under-reporting, causing a big tax gap and a low tax-GDP ratio, which is why we earn very little tax revenue compared to our GDP. The government cuts back on spending on relevant capital goods sectors like health, education, and infrastructure due to high government borrowing and high debt servicing. Moreover, around 70% of our tax collection is from VAT; this is regressive and imposed equally upon the rich and poor, resulting in chronic income inequality in Bangladesh. So, detecting the causes of overall tax exemption and tax evasion resulting in a high tax gap and low Tax-GDP ratio and their impacts upon income inequality and finding perfect tax composition through domestic resource mobilisation for making an equitable and justified nation by inclusive growth is a demand of the time.

1.3 Literature Review

We have carefully studied the literature to identify clues and research gaps relevant to our research problem. Below is a summary of our findings:

Islam, Rashid, Hossain, and Hashmi (2020) conducted a study on the impact of economic and non-economic public policies on tax evasion. They reported that countries with higher degrees of economic freedom, such as property rights, monetary freedom, fiscal freedom, and investment freedom, tend to experience lower levels of tax evasion. They also found that countries with better public sector governance and higher religiosity have lower tax evasion rates. They suggested that governments, tax authorities, and researchers consider these insights when developing public policies to reduce tax evasion.

Thilanka and Ranjith (2021) studied the effect of tax composition and compliance on income inequality. They discovered that direct taxes have a negative

impact on income inequality, while indirect taxes, such as VAT and tax non-compliance, have a positive impact. They recommended that countries broaden their income tax base and strengthen tax compliance measures to reduce income inequality.

Traore (2019) investigated the impact of tax policy on inclusive growth in 91 developing countries from 1990 to 2015. He found that reliance on the progressivity of personal income tax has been a source of inclusive growth and income distribution. He also found that corporate income tax may be a greater source of inclusive growth only if the country has strong institutional quality, such as low corruption and good bureaucratic policy. Additionally, his research revealed that the effect of tax on inclusive growth is affected during electoral periods.

Fuest and Riedel (2009) showed that tax avoidance and tax evasion are major limiting factors to revenue mobilisation in developing countries. They identified two components: the domestic component, which includes tax evasion due to the domestic shadow economy, and the international component, which provides profit shifting by corporations and private individuals' offshore holdings of financial assets.

Khaled (2021) conducted a study on the causes of Bangladesh's lower tax-GDP ratio and the psychological impact of tax evasion. He found a link between the lower tax-GDP ratio and the psychological impact of a historically long colonial rule. The citizens' psychology has been developed so that revenue collected by the government is smuggled elsewhere.

Isabelle, Pisu and Bloch (2012) explore the diversity in redistributive impact across OECD nations, highlighting the significance of factors like tax progressivity and welfare system size. Employing empirical analysis, they categorise countries into groups based on their tax and transfer systems, offering valuable insights into combatting income inequality.

Joumard, Pisu and Bloch (2013) pinpointed the redistributive impact of primary taxes and cash transfers in mitigating inequality in disposable income compared to market income across diverse OECD countries.

Finally, Murshed and Saadat (2018) revealed that political stability and the existing public service conditions positively impact the tax-GDP ratio.

1.4 Research Gaps

Several potential research gaps were identified based on the provided literature review and the focus of the study. Research gaps in the context of Bangladesh's tax system include understanding the effectiveness of specific tax policies in addressing income inequality, exploring the influence of socioeconomic factors on tax compliance, assessing the impact of tax policies on inclusive growth, examining

the dynamics of tax avoidance and evasion, and investigating the psychological factors influencing tax behaviour. Addressing these gaps can provide valuable insights for policymakers aiming to design targeted tax reforms to foster inclusive economic development, improve tax compliance, and mitigate income inequality in Bangladesh.

1.5 Objectives of the Study

This study aims to examine the impact of the high tax gap and low tax-GDP ratio on income inequality in Bangladesh and propose an inclusive growth-oriented tax policy to promote equity within the economy.

The specific objectives of this study include:

- To illustrate the historical and current trends of Bangladesh's tax gap, tax-GDP ratio, and income inequality.
- To identify the factors contributing to Bangladesh's elevated tax gap and diminished tax-GDP ratio.
- To analyse inequality using metrics such as the Gini coefficient, Palma ratio, and Quintile ratio.
- To investigate the relationship between the Inverted-U hypothesis and the Laffer curve within the context of Bangladesh's economy.
- To introduce the Cobham approach to assess the tax gap.
- To examine the potential impact of VAT-based improvements on the Tax-GDP ratio on income inequality.
- To explore the concept of an inclusive growth-friendly tax policy tailored to the context of Bangladesh.

We are concluding the study and offering policy recommendations based on the findings.

2.0 Methodology of the Study

The article's methodology involves a comprehensive approach to examining the impact of the high tax gap and low tax-GDP ratio on income inequality in the Bangladesh economy, focusing on proposing an inclusive growth-oriented tax policy. Secondary data covers the period from 2000 to the 2021 fiscal year. Descriptive statistics are employed for data analysis, supplemented by trend line analysis to illustrate the historical and current trends of tax-related indicators and income inequality measures. Data is sourced from diverse national and international outlets, including Bangladesh Bank, Bangladesh Economic Review, World Development Indicators (WDI), World Bank, and Bangladesh Bureau of Statistics. Relevant literature is reviewed to provide theoretical insights into tax evasion, tax composition, inclusive growth, and the relationship between tax

policies and income distribution. The study utilises a structured methodology to analyse the research objectives, employing established economic principles and methodologies to derive meaningful conclusions and policy recommendations. By following these methodological steps, the article can effectively analyse the impact of tax policies on income inequality in Bangladesh and propose evidence-based policy recommendations to promote inclusive growth and equity within the economy.

2.1 Theoretical and Conceptual Framework

The conceptual framework of the article is grounded in the interplay between Bangladesh's tax system, economic development, and income inequality, focusing on promoting inclusive growth. At its core, the framework acknowledges that fiscal policy, including taxation, plays a pivotal role in shaping macroeconomic outcomes and social equity. The framework identifies critical components:

- Tax System Dynamics: The framework recognises the structure and composition of Bangladesh's tax system, emphasising the predominance of indirect taxes like VAT and the challenges posed by tax exemptions, evasion, and under-reporting. It acknowledges the impact of tax policies on revenue generation, economic incentives, and income distribution.
- Economic Development and Fiscal Policy: The framework situates Bangladesh's economic development trajectory within the context of fiscal policy, recognising the country's transition from a Least Developed Country (LDC) status to a lower-middle-income status. It considers the implications of economic globalisation, foreign aid, and trade dynamics on tax revenue sources and fiscal sustainability.
- Income Inequality and Inclusive Growth: The framework acknowledges the existence of income inequality in Bangladesh and its implications for social cohesion and economic stability. It underscores the importance of inclusive growth to address income disparities and promote equitable development. This includes enhancing access to education, healthcare, and infrastructure and creating opportunities for marginalised groups. Income inequality is measured by different ratios such as:

  Gini Coefficient: The Gini coefficient ranges from 0 to 1. It indicates that the higher the Gini coefficient, the greater the inequality between a country's richest and poorest people. It is often written as a percentage. A Gini coefficient value approaching 40 (0.40) indicates that inequality is alarming in a society where the minimum population gradually gains the maximum wealth.

Palma Ratio: The Palma ratio compares the income of the richest 10 percent of the population in an economy with that of the bottom 40 percent. It measures the richest 10 percent of the population's share of the Gross National Income (GNI) divided by that of the poorest 40 percent.

Quintile Ratio: The Quintile ratio compares the income of the richest 20 per cent of the population in an economy with the bottom 20 per cent. The quintile ratio measures the total income received by the 20 per cent of the population with the highest income (the top quintile) to that received by the 20 per cent of the population with the lowest income (the bottom quintile).

Inclusive Growth: Inclusive growth is growth that benefits all portions of society, including the poor, middle-income groups, and even the wealthy, with equal opportunities.

- Policy Interventions and Governance: The framework identifies policy interventions to address the challenges within Bangladesh's tax system and promote inclusive growth. This includes diversifying the tax base, reforming VAT, improving tax compliance, and strengthening governance mechanisms to ensure transparency and accountability in revenue collection and expenditure.
- Calculation of Tax-Gap: Cobham (2005) discusses the estimation of tax revenue losses due to tax evasion, mainly focusing on the domestic shadow economy. Here's a breakdown of the approach and key points:

  Tax Revenue in the Absence of Tax Evasion (T0): Cobham starts by defining the hypothetical tax revenue of a country in the absence of tax evasion, denoted as T0, which is calculated as the product of the average tax rate (t) and the tax base (Ω). $T_0 = t\Omega$.

  Where t is the average tax rate, and Ω is the tax base.

  Reasons for Tax Revenue Losses: Cobham identifies five main reasons for tax revenue losses:

  - ❖ Domestic shadow economy
  - ❖ Foreign asset holdings of domestic residents
  - ❖ Income shifting by multinational firms
  - ❖ Tax competition leading to reduced tax rates
  - ❖ Non-payment of taxes due to various reasons, such as shortcomings in tax administration.

Tax Revenue in Presence of Tax Evasion (T_1): In the presence of tax evasion, the actual tax revenue (T1) is reduced due to the existence of the shadow economy. This is calculated using the formula:

$T_1 = t\Omega (1-s)$

Where s represents the share of the shadow economy, and official economy + shadow economy = 1; therefore, official economy = 1— shadow economy.

Tax Revenue Losses Due to Domestic Shadow Economy: Cobham defines the tax revenue lost due to activities in the domestic shadow economy as the difference between T_0 and T_1, estimated as $t\Omega s$.

Cobham then defines the tax revenue lost due to domestic shadow economy activities as follows:

Therefore, Tax Ga, $T_0-T_1 = t\Omega s$

Estimation of Tax Revenue Losses: Cobham estimates the tax revenue loss using the formula:

Est[T_0-T_1] = Tax revenue to GDP ratio × GDP × Share of the Shadow Economy in GDP.

Cobham (2005) hypothesises that the shadow economy in developing countries constitutes just over 30% of the official GDP, while in developed countries, it constitutes around 13% of GDP. Cobham acknowledges limitations in estimating tax revenue losses, particularly in the case of the shadow economy, which includes illegal activities. Taxing these activities may not be feasible, and taxing them could potentially lead to changes in behaviour, reducing the tax base.

Overall, the conceptual framework provides a holistic understanding of the complex interactions between Bangladesh's tax system, economic development, and income inequality, offering insights into potential policy solutions to foster inclusive growth and equitable development.

3.0 Linking Inverted-U hypothesis and Laffer curve in Bangladesh economy

High tax evasion and extensive tax exemptions in Bangladesh inevitably lead to a significant tax gap and a low Tax-GDP ratio, contributing to widespread inequality and injustice. Both tabular and graphical methods are employed to elucidate the current state of the Bangladeshi economy concerning its tax structure. The table below provides a quantitative breakdown of critical indicators related to taxation,

while graphical representations offer visual insights into the patterns and trends within the tax system.

Table 1: Deficit budget and Tax-GDP ratio interaction

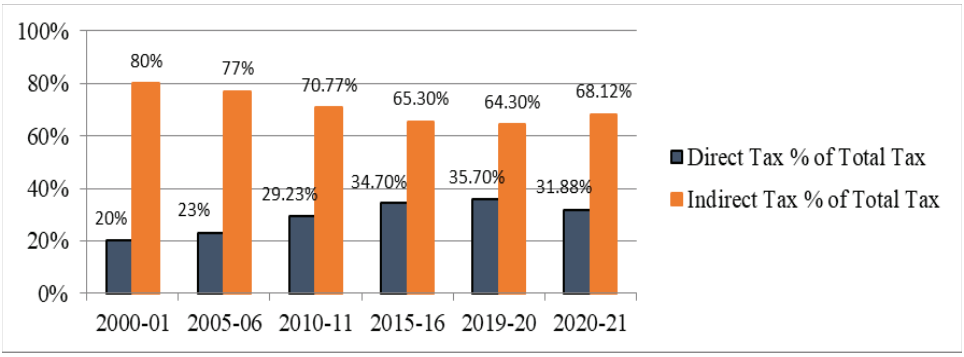
Year	Deficit % of GDP	GDP Growth Rate	Per Capita GNI(US$)	Tax-GDP Ratio
2000-01	2.92	5.29	440	6.611
2001-02	4.08	5.08	440	6.691
2002-03	2.74	3.83	440	6.965
2003-04	2.34	4.74	460	7.046
2004-05	2.62	5.24	510	7.136
2005-06	2.85	6.54	550	7.043
2006-07	2.57	6.67	570	6.917
2007-08	2.23	7.06	610	7.656
2008-09	4.03	6.01	660	7.498
2009-10	3.21	5.05	730	7.835
2010-11	2.68	5.57	800	8.686
2011-12	3.59	6.46	890	9.025
2012-13	2.98	6.52	970	8.962
2013-14	3.38	6.01	1040	8.635
2014-15	3.08	6.06	1110	8.498
2015-16	3.98	6.55	1220	8.765
2016-17	3.36	7.11	1370	8.9
2017-18	3.34	7.28	1520	9.4
2018-19	4.64	7.86	1750	8.9
2019-20	5.43	8.15	1930	8.45
2020-21	6%	5.24	2064	7.9

Source: www.worldbank.org

Table 1 illustrates a substantial five-fold increase in per capita Gross National Income (GNI) during the fiscal years of 2020-21 compared to 2000-01. Correspondingly, the tax-GDP ratio slightly increased from 6.611 to just below 10. However, during this timeframe, there is a gradual escalation in the deficit alongside a rise in the growth rate. The question arises: How was such a growth rate achieved? The growth rate is sustained through borrowing from various national and international sources, resulting in significant debt-servicing costs

and exacerbating our budget deficits. Unfortunately, the significance of a robust tax administration is often overlooked. It's important to note that the values for 2020-21 across all indicators are abnormal due to the disruptive impact of the COVID-19 pandemic.

Figure 1: Contribution of direct and indirect tax in total tax revenue



Source: NBR, MoF, BBS

Indirect taxes are inherently regressive, disproportionately affecting lower-income and higher-income individuals. On the other hand, direct taxes tend to be progressive, meaning they impose a higher burden on higher-income individuals than on lower-income individuals. A regressive tax policy can exacerbate income inequality, whereas a progressive tax policy can help mitigate it.

Figure 1 illustrates that the proportion of indirect taxes is significantly higher than that of direct taxes in Bangladesh. However, there is positive news: both types of taxes move in inverse directions, meaning direct taxes increase while indirect taxes decrease. It's important to note that this trend was interrupted in 2020-21 due to the COVID-19 pandemic, which had unforeseen economic consequences.

This inverse movement suggests a potential shift towards a more progressive tax structure, which could help reduce income inequality in Bangladesh. However, continued efforts and policy interventions may be necessary to ensure that this trend persists and that the tax system contributes to a more equitable distribution of wealth and resources.

Table 2: Standard VAT Rates and Application of Reduced Rates in Some Selected Countries in 2021

Country	Standard VAT/ GST Rates	Reduced Rates	Application of Reduced Rates
Australia	GST Rate10%	-	Basic foods, Healthcare are GST-free.
Bangladesh	15%	10%,7.5%, 5%,2%,0%	Goods exported and services imported are 0%
Canada	Federal GST Rate 5%	0%	Healthcare, Child care, and Legal aid have exemptions
UK	20%	5%	Most food and children's clothes have 0%
USA	No VAT, Sales Tax 2.9%-7.25%	-	Lower rate in necessary goods varies in terms of Provinces.
Germany	19%	7%	Basic foods, healthcare, pharmaceuticals, books, newspapers, domestic transport
France	20%	5.5%	Basic foods, healthcare, pharmaceuticals, books, newspapers, domestic transport
China	13%,9%,6%	5%,2%,1.5%, 1%,0.5%	Small-scale enterprise and construction services have 3%.
India	GST Rate 28%,18%,12%	5%,0%	Basic foods, postal services, books and newspapers have 0%
Japan	10%	8%	Basic foods, healthcare, pharmaceuticals, books, newspapers, domestic transport
South Korea	10%	0%	Some goods have exempted rate
Malaysia	10% (Sales), 5% Service)	5% (Sales Tax)	Some goods have exempted rate
Pakistan	17%	1%,1.5%,2%,5%, 7%,7.5%,8%, 10%,16%	Goods exported and services imported are 0%
Russia	20%	10%	Foodstuffs, exports, and associated goods have reduced rate

Country	Standard VAT/ GST Rates	Reduced Rates	Application of Reduced Rates
Myanmar	No VAT, Sales Tax average 14.38%	8%, 5%	All exports are zero-rated, except electricity (8%) and crude oil (5%).
New Zealand	15%	9%	Exported goods and services have reduced Rate even 0%
Nepal	13%		0% on exported goods
Sri Lanka	8% (15% was in 2019)		Exports and certain specified international services are 0%
Norway	25%	15%,11%, 6%,0%	Foodstuffs and e-books have reduced rate
Finland	24%	14%,10%,0%	Pharmaceutical products, domestic passenger transport, books (including e-books), and newspapers have reduced rates.

Source: Global VAT Compliance

Table 2 provides an overview of the standard VAT rates, reduced VAT rates, and the application of various reduced rates in specific goods and services across different countries. While the standard VAT rates vary from country to country, many countries apply reduced rates, including 0% VAT, to essential items such as basic foods, healthcare, pharmaceuticals, books, newspapers, domestic transport, and sometimes to export and import goods and services.

Table 3: Tax gap and Tax-GDP Ratio Comparison by Asia Pacific Countries

Country	Population	Tax Gap	Tax-GDP Ratio
Bangladesh	16.50 Crores	7.50%	9.1
Bhutan	7.70 Lakh	6.70%	16
Afghanistan	3.89 Crores	6.20%	7.6
Maldives	5.40 Lakh	5.80%	20.5
Indonesia	27 Crores	4.70%	11.5
Pakistan	22 Crores	1.80%	12.5
China	144 crores	1.80%	17.5
India	138 Crores	N/A	18.08
Malaysia	3.30 Crores	1.30%	13.6

Source: World Bank, UN

Table 3 compares the tax gap and tax-GDP ratio among various Asia-Pacific countries based on data from the UN Economic and Social Commission for Asia and the Pacific Survey 2018. The tax gap represents the difference between actual and potential tax collection as a percentage of GDP. At the same time, the tax-GDP ratio indicates the proportion of tax revenue relative to the country's GDP. According to the table, Bangladesh has the highest tax gap among the 9 Asia-Pacific countries listed, with a tax gap of 7.50%. Bangladesh has the lowest tax-GDP ratio among these countries, except for Afghanistan, which stands at 9.1%. It indicates that Bangladesh's tax administration faces significant challenges in collecting taxes effectively and efficiently. Comparatively, other countries such as Bhutan and Afghanistan also exhibit relatively high tax gaps and low tax-GDP ratios, suggesting similar issues with tax administration and revenue collection efficiency. Overall, the data in Table 3 highlights the need for reforms and improvements in tax administration across the Asia-Pacific region to enhance revenue collection and promote economic stability and development.

Table 4: Tax Evasion Scenarios by CIC, NBR

Year	Detection of taxes in million Taka	Collection of taxes in million Taka
2015-16	1915.79	1205.81
2016-17	2159.89	1419.46
2017-18	2692.58	1106.2
2018-19	2524.95	1782.72
2019-20	2696.96	1680.05

Source: Yearly Success Report of Central Intelligence Cell (CIC), NBR

Table 4 presents data on the detection and collection of taxes in millions of Takas over five years, from 2015-16 to 2019-20. The figures reveal notable fluctuations and trends in tax enforcement and revenue collection during this period. In 2015-16, the detection of taxes amounted to 1915.79 million Taka, while the actual collection stood at 1205.81 million Taka. Over the subsequent years, the detection and collection of taxes experienced an upward trajectory. By 2016-17, the detection of taxes increased to 2159.89 million Taka, with the collection also seeing a rise to 1419.46 million Taka. However, in 2017-18, while the detection of taxes surged to 2692.58 million Taka, the collection declined significantly to 1106.2 million Taka, indicating a substantial gap between the detected and collected amounts. It's important to note that it happened in 2017-18 due to the COVID-19 pandemic. The trend continued in 2018-19, with the detection of taxes

slightly decreasing to 2524.95 million Taka, but the collection notably increased to 1782.72 million Taka, suggesting improved tax enforcement and compliance efforts.

Similarly, in 2019-20, although the detection of taxes remained relatively stable at 2696.96 million Taka, the collection decreased to 1680.05 million Taka. Overall, the data suggests varying levels of effectiveness in tax enforcement and revenue collection over the years, with fluctuations likely influenced by factors such as changes in tax policies, economic conditions, and the effectiveness of tax administration. Analysing these trends can provide insights into the efficiency of tax systems and inform future strategies for enhancing tax compliance and revenue mobilisation.

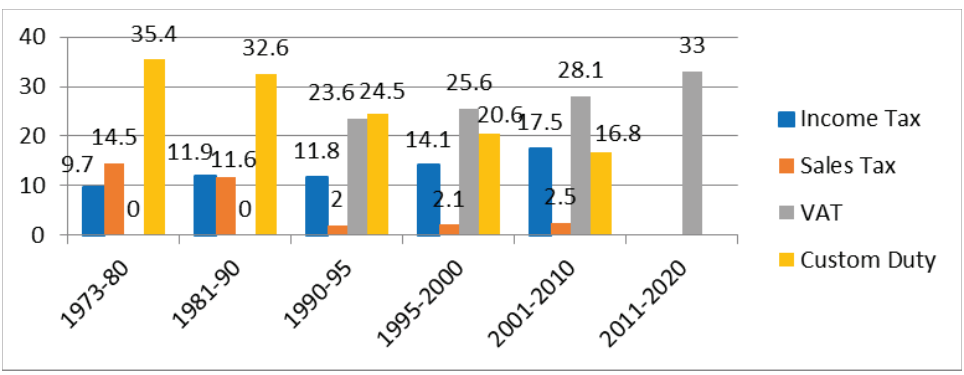
Table 5: Tax Evasion Scenario in terms of TIN Holder

Year	Registered TIN Holder	Tax File Returnee
2018	35 Lakh	19.5 Lakh
2019	40 Lakh	22 Lakh
2020	50 Lakh	24 Lakh

Source: NBR

Table 5 indicates that nearly half of Bangladesh's Taxpayer Identification Number (TIN) holders evade taxes, contributing to the decline in the tax-GDP ratio.

Figure 2: Tax Structure during Pre and Post-VAT Regime in Bangladesh



Source: Policy Research Institute (PRI), BD.

Figure 3 illustrates a significant reduction in sales tax and a decline in customs duty following the introduction of VAT during the 1990-95 regimes. The regressive nature of VAT applies equally to the affluent and the economically

disadvantaged. Moreover, a growing number of citizens are subject to income tax and VAT, reflecting a rising trend of income inequality in Bangladesh.

Table 6: Long-term Growth and Income Inequality

Decade	Average annual growth rate (%)	Gini Coefficient (income distribution)
1970-1980	1.52	0.37
1980-1990	3.7	0.3
1991-2000	4.8	0.41
2001-2010	5.8	0.45
2011-2020	6.5	0.48

Source: Household Income Expenditure Survey (HIES), BBS

Table 6 presents data on the average annual growth rate (%) and the Gini coefficient (a measure of income distribution) for different decades in Bangladesh:

- 1970-1980: The average annual growth rate was 1.52%, and the Gini coefficient was 0.37. It suggests modest economic growth with relatively moderate income inequality.
- 1980-1990: The average annual growth rate increased to 3.7%, while the Gini coefficient decreased slightly to 0.3. This period saw a significant improvement in economic growth accompanied by a reduction in income inequality.
- 1991-2000: The average annual growth rate (4.8%) and the Gini coefficient (0.41) increased during this decade. Economic growth accelerated, but income inequality also rose, indicating that the benefits of growth were unevenly distributed.
- 2001-2010: The average annual growth rate increased to 5.8%, and the Gini coefficient rose to 0.45. Despite robust economic growth, income inequality worsened, suggesting that economic gains were concentrated among a smaller population.
- 2011-2020: This decade saw the highest average annual growth rate (6.5%) and a further increase in the Gini coefficient to 0.48. The period witnessed rapid economic expansion but also a significant exacerbation of income inequality, indicating that economic prosperity was not shared equally among all segments of society.

Overall, the data highlights the relationship between economic growth and income inequality in Bangladesh over the decades. While economic growth has generally

increased, income inequality has also risen, suggesting a need for policies to promote more inclusive growth and reduce disparities in income distribution.

Table 7: Income Group with Share of Total Income in Bangladesh

Income Group	Variables	Dhaka City	Other urban	Rural	All Bangladesh
Bottom 40%	% of Share of Total Income	10.5	16	18.2	13.4
Middle 50%	% of Share of Total Income	33.9	48	50.1	40.4
Top 10%	% of Share of Total Income	55.7	36	31.7	46.2

Source: PPRC Governance and Economy Survey, 2015

Table 7 presents the distribution of income across different income groups in Bangladesh, categorised by urban and rural areas:

- Bottom 40%: This income group represents the 40% of the population with the lowest income. In Dhaka City, they account for 10.5% of the total income; in other urban areas, they account for 16%; and in rural areas, they account for 18.2%. Overall, they hold 13.4% of the total income in Bangladesh. It indicates that the bottom 40% of the population has a relatively small share of the total income, particularly in urban areas.
- Middle 50%: This income group represents the middle 50% of the population. In Dhaka City, they hold 33.9% of the total income; in other urban areas, they hold 48%, and in rural areas, they hold 50.1%. Combined, they account for 40.4% of the total income in Bangladesh. This group has a larger share of the total income than the bottom 40%, indicating a more equitable income distribution.
- Top 10%: This income group represents the top 10% of the population with the highest income. In Dhaka City, they hold 55.7% of the total income; in other urban areas, they hold 36%, and in rural areas, they hold 31.7%. Overall, they account for 46.2% of the total income in Bangladesh. This group has the largest share of the total income, indicating a significant concentration of wealth among a small portion of the population, particularly in urban areas.

Overall, the data suggests that income distribution in Bangladesh is skewed. A disproportionate amount of income is concentrated among the wealthiest segments of the population, particularly in urban areas. In contrast, most of the population, especially in rural areas, holds a smaller share of the total income.

Table 8: Income Inequality by Gini, Palma and Quintile Ratio in South Asian Countries.

Country	Gini Coefficient (in terms of Consumption)	Palma Ratio (2010-17), Income Growth of the Bottom 40% vis-a-vis top 10%.	Quintile Ratio (2010-17)
Afghanistan	0.31 (2016)	n/a	n/a
Bangladesh	0.32 (2016)	1.3 [-0.19(2010-16)]	4.8
Bhutan	0.37 (2017)	1.8 [-0.05(2012-17)]	6.9
India	0.36 (2015)	1.5 [-0.49(2004-11)]	5.3
Maldives	0.31(2016)	1.7 [n/a]	7
Nepal	0.33 (2014)	1.3 [3.58(2003-10)]	5
Pakistan	0.32 (2018)	1.2 [-1.53(2010-15)]	4.4
Sri Lanka	0.39 (2016)	1.9 [-0.48(2012-16)]	6.8

Source: Human Development Reports (2009-2017), Poverty and Equity Data Portal, UNDP.

Table 8 shows the Income inequality in South Asian countries, as measured by various indices such as the Gini coefficient, Palma ratio, and quintile ratio, revealing significant disparities in wealth distribution across the region. In Afghanistan, Bangladesh, Maldives, and Pakistan, the Gini coefficients range from 0.31 to 0.32, indicating moderate levels of income inequality. At the same time, Bhutan, India, Nepal, and Sri Lanka exhibit slightly higher Gini coefficients ranging from 0.33 to 0.39. The Palma ratio, which compares the income growth of the bottom 40% with the top 10%, highlights a trend where the wealthiest segment experiences disproportionately higher income growth than the poorest. For instance, in Bangladesh, the bottom 40% earns only one-fifth of what the top 10% earns during the 2010-16 period, while in Nepal, the bottom 40% earns reciprocally 3.58 times more than the top 10%. It suggests that Nepal exhibits a relatively more comfortable level of inequality than other South Asian nations.
Additionally, the quintile ratio, which measures the income of the top quintile to that held by the bottom quintile, demonstrates a considerable concentration of wealth among the wealthiest quintile in countries like Bhutan, Maldives, and Sri Lanka, where ratios exceed 6. In Bangladesh, the top 20% earns 4.8 times more than the bottom 20%, a trend mirrored in other South Asian countries. The Tax-GDP ratio and tax evasion fuel these inequalities. The wealthiest individuals, including government officials, business people, and politicians, often engage in tax avoidance practices such as evasion and money laundering, exacerbating income inequality. Conversely, the poorest segments of society, comprising farmers, rickshaw pullers, and retailers, bear the burden of taxes like VAT without

engaging in such offences. This stark contrast in tax burdens contributes to the widening income gap year after year.

4.0 Findings of the Study

Based on the findings presented in the provided tables and figures, we can draw several conclusions regarding the state of the Bangladesh economy, particularly concerning taxation, income inequality, and tax evasion:

- Status of Bangladesh Economy: Bangladesh faces challenges such as high tax evasion and extensive tax exemptions, leading to a significant tax gap and a low tax-GDP ratio. These contribute to widespread inequality and injustice within the country.
- Deficit Budget and Tax-GDP Ratio Interaction: Table 1 illustrates a significant per capita Gross National Income (GNI) increase over the years, accompanied by a slight rise in the tax-GDP ratio. However, there is a gradual escalation in the deficit alongside an increase in the growth rate. This growth rate is sustained through borrowing, resulting in significant debt-servicing costs and exacerbating budget deficits.
- Contribution of Direct and Indirect Taxes: Figure 1 shows that indirect taxes significantly outweigh direct taxes in Bangladesh. However, there is a positive trend with direct taxes increasing while indirect taxes decrease, potentially indicating a shift towards a more progressive tax structure that could help reduce income inequality.
- Standard VAT Rates and Application of Reduced Rates: Table 2 presents an overview of VAT rates across different countries, with Bangladesh having a 15% standard VAT rate. Reduced rates are applied to various essential items, indicating efforts to mitigate the burden on lower-income individuals.
- Tax Gap and Tax-GDP Ratio Comparison: Table 3 compares the tax gap and tax-GDP ratio among Asia-Pacific countries, highlighting Bangladesh's significant tax gap and low tax-GDP ratio. It indicates challenges in tax administration and revenue collection efficiency.
- Tax Evasion Scenarios: Table 4 shows fluctuations in tax detection and collection over the years, suggesting varying levels of effectiveness in tax enforcement and revenue collection.
- Tax Evasion by TIN Holders: Table 5 indicates a high rate of tax evasion among Bangladeshi Taxpayer Identification Number (TIN) holders, contributing to the decline in the tax-GDP ratio.

- Tax Structure Pre and Post-VAT Regime: Figure 2 illustrates changes in the tax structure before and after the introduction of VAT in Bangladesh, highlighting a reduction in sales tax and customs duty but also reflecting a regressive nature in VAT application.
- Income Inequality by Gini, Palma, and Quintile Ratio: Table 8 compares income inequality across South Asian countries, showing significant disparities in wealth distribution. Factors such as the Tax-GDP ratio, tax evasion, and regressive tax policies contribute to widening income gaps within these countries.

These findings underscore the importance of addressing tax evasion, reforming tax policies, and improving tax administration to reduce income inequality and promote economic development in Bangladesh.

5.0 Policy Recommendations

The study introduces recommendations for improving the Tax-GDP ratio, controlling or minimising the tax gap, lowering income inequality, and ensuring inclusive growth and overall better livelihood in Bangladesh.

1. Enhance Governance and Tax Compliance: Implementing good governance practices and strengthening tax compliance mechanisms are essential for maximising tax collection, reducing the size of the underground economy, and expanding the official economy. It can be achieved by lowering tax rates and broadening the tax base through effective enforcement.
2. Remove Politically Biased Tax Exemptions: To prevent tax evasion, eliminate irrational tax exemptions influenced by political interests and periodically reassess the validity of "infant industry arguments." This will ensure a fair and transparent tax system that promotes economic growth without favouritism.
3. Address the Informal Sector: Address the free-rider problem by discouraging informal sector participation. With most of the labour force working in the informal sector and not contributing to income tax, including them in the tax net is crucial to promote fairness and equity among all citizens.
4. Revise VAT Classification: Revamp the VAT classification system to align with consumer classes. Introduce zero-rated VAT for goods and services consumed by low-income individuals and implement higher VAT rates for luxury items consumed by the affluent, ensuring social justice and equity in taxation.

5. Establish a Comprehensive Database and Monitor Income: Develop a comprehensive database of all individuals in Bangladesh and monitor their income and wealth status at the local level. Utilise this information to attract solvent individuals into the tax net and apply principles of ability to pay and progressive taxation to promote justice and equality.
6. Combat Whitening of Black Money: Cease practices that allow the whitening of black money, as it undermines the integrity of the tax system and discourages honest taxpayers. Ensuring that tax evaders face consequences proportionate to their actions will discourage tax evasion and promote fairness.
7. Monitor Corruption and Money Laundering: Strengthen monitoring mechanisms to prevent undue collusion among politicians, business people, and bureaucrats, which often leads to money laundering, under-reporting of income, mispricing, and illegal tax exemptions. Empower anti-corruption commissions and tax authorities to effectively combat such practices and uphold the tax system's integrity.

Relax Corporate Tax and Interest Rates: Businesses evade taxes when faced with higher corporate tax and interest rates. By relaxing these rates, the government can incentivise businesses to comply with tax regulations, thereby boosting total tax collection and contributing to an improved tax-GDP ratio.

6.0 Policy Implications of the Study

The policy implications stemming from the research findings emphasise the urgent need for comprehensive tax reforms, governance enhancement, and inclusive growth strategies in Bangladesh. Addressing the country's high tax gap and low tax-GDP ratio requires revising tax policies to ensure fairness, effectiveness, and transparency in revenue collection. Strengthening governance mechanisms, combating corruption, and improving compliance enforcement are essential to enhance tax administration and promote accountability. Moreover, fostering inclusive growth entails targeted interventions to address the needs of marginalised communities, integrate informal sector workers into the formal economy, and invest in education, healthcare, and social welfare programs. Reforming the VAT system to align with principles of social justice, preventing the whitening of black money, and combating illicit financial activities are critical measures to promote economic stability and equitable wealth distribution. Overall, the policy implications underscore the importance of proactive measures to address the identified challenges and pave the way for sustainable development and social progress in Bangladesh.

7.0 Conclusion

The study identifies several concerning trends in Bangladesh's economy over the years, despite a significant increase in per capita Gross National Income (GNI) from 2000-2001 to 2020-2021 fiscal years. Despite this economic growth, the Tax-GDP ratio has remained relatively low, hovering around 6%-9%, while the budget deficit has increased from 2.92% to 6% during this period. Bangladesh faces the highest tax gap and lowest tax-GDP ratio among Asia-Pacific countries, alongside a growing budget deficit. Alarmingly, indicators such as the Gini coefficient, Palma ratio, and quintile ratios reflect worsening income inequality in Bangladesh. Tax exemption costs have also escalated, reaching 2.28% of GDP in the 2021 fiscal year. Despite allocating a substantial portion of expenditure to debt servicing (approximately 18%), income inequality, as measured by the Gini coefficient, remains high at 0.48. Various factors contribute to this situation, including money laundering through mispricing of goods and services, tax defaulting, corruption in tax collection, poor tax compliance, ineffective tax composition, and irrational tax exemptions. Indirect taxes, primarily Value Added Tax (VAT), constitute 70% of collected taxes, exacerbating income inequality as VAT is regressive and applies equally to all necessary goods regardless of income level. Studies by organisations like the Centre for Policy Dialogue (CPD) reveal alarming disparities, with the wealthiest 1% holding a disproportionate share of national income. The bottom 40% earns significantly less than the top 10%.

Additionally, the top 20% earns nearly five times more than the bottom 20%, widening the income gap. The government's reduction in expenditures on crucial sectors such as education, research and development, and healthcare, coupled with escalating debt servicing costs, exacerbates economic challenges. Ultimately, these issues stem from a high tax gap and low Tax-GDP ratio, perpetuating income inequality and hindering sustainable economic development in Bangladesh. Addressing these root causes is crucial for fostering a more equitable and prosperous economy. Achieving inclusive growth and development requires political stability, ethical conduct, patriotism, and a solid determination to overcome national and global challenges. It is imperative to renovate the rigid tax structure by identifying and addressing all its loopholes to enhance national tax revenue. Domestic resource mobilisation can play a pivotal role in reducing deficit financing and alleviating debt servicing costs, particularly with the impending transition of Bangladesh from a Least Developed Country (LDC) to a developing country by 2026. This transition will likely entail higher costs for foreign loans, withdrawal of the Generalized System of Preferences (GSP) from key foreign currency-earning sectors like the readymade garments industry, and implementation of property rights in the pharmaceutical industry. The credibility and self-sufficiency of the government

and the nation must be prioritised to realise the vision of a prestigious, self-reliant, and developed Bangladesh by 2041. Implementing a widely accepted and inclusive growth-oriented flexible tax policy, coupled with a well-trained, ethical, and technically proficient National Board of Revenue (NBR) team, can effectively narrow the tax gap, boost the tax-GDP ratio, and uphold principles of social justice and equality without necessitating an increase in tax rates in Bangladesh.

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