

Role of an NGO in the Poverty Reduction of the Char Dwellers in Kurigram District, Bangladesh

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Abstract

Kurigram is one of the riverside districts in the northwest region and is ranked as the highest in the poverty list among the poorest districts of Bangladesh. The study's objective is to find whether any involvement in the RDRS Bangladesh Program can help to reduce poverty among the char inhabitants in the study area. Using a multistage sampling design, primary data is collected from 160 respondents. This research is conducted using both qualitative and quantitative techniques. An econometric model, such as a multiple logistic regression model, is used to estimate the impact of socio-economic characteristics, including women's involvement in the RDRS program, on the possibility of poverty reduction. The result using the descriptive method shows that the respondents' socio-economic background is not overall sound in the area. The regression result shows that seven independent variables, including involvement in the RDRS program, age, education, average asset holding, and monthly average income level, would possibly negatively affect poverty incidence at a different level of significance. However, family size and occupation have a statistically positive and significant effect on the possibility of poverty for the respondent. This research would help identify the critical factors for reducing poverty so that appropriate courses of action can be taken to develop this backward region and sustain growing national development.

Keywords: Char dwellers · Microcredit · NGO · Poverty · Women

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1. Introduction

Over the years, Bangladesh has achieved considerable progress in reducing poverty and improving economic development. However, poverty is still prevalent in north-west Bangladesh. According to national data, the benefits of strong economic growth and the prevalence of poverty are not dispersed equally across the region. The national poverty rate has decreased by 8.3%, but the poverty incidence of the northwest district, Kurigram, has increased by 7.2% in 2017. According to the Bangladesh Bureau of Statistics (BBS)-2017, 70.87 percent of the population of this district is poor. In 2014, this figure was 63.67%. Four of the poorest ten districts in Bangladesh are located in the North-West Region (BBS, 2018). Kurigram has been ranked the highest (70.87%) in the poverty list in the country's districts.

Due to the location, many people in Dinajpur and Rangpur, Lalmonirhat, Kurigram, and Gaibandha face vulnerabilities like river floods, flash floods, waterlogging, soil erosion, and water scarcity (Rahman, 2007). Char inhabitants of the area are especially prone to extreme poverty and destruction due to their weak physical environment, little wealth, limited economic options, laziness, and lack of mainland institutions, as well as their varied livelihoods (Kamal, 2011). Research shows that boundary walls positively correlate with poverty and population vulnerability. The economics of char land is primarily based on agriculture, fishing, and livestock farming, making them vulnerable. Among the many causes of high poverty and vulnerabilities in the Char region, low fertility and high sandy land farming significantly impact their unemployment and weaknesses (Anderson, 1995).

The government makes many significant efforts for inclusive regional development and poverty reduction. However, the state faces many challenges overcoming income inequality and poverty in backward areas like the country's northwest region. NGOs are, therefore, indispensable for the planned development of these backward areas, including the char regions. Keeping these overall conditions in mind, NGOs are working together on poverty alleviation and livelihood programs, directly covering the poverty-stricken population in the poverty-prone region of northwest Bangladesh.

RDRS Bangladesh is one of the leading NGOs in the country. Since 1988, it has been working on the char population of the North-East region as an essential portion of its typical economic development program. It worked in more than 100 chars, ended extreme poverty, and reduced the people's livelihood vulnerabilities. It offers detailed development assistance, comprising microfinance, to the needy, particularly women, in 10 districts in Bangladesh's North-West and North-East areas. RDRS' Char Development Program (CDP) aims to increase access to essential services for all people, reducing vulnerability to natural disasters and social, political, and economic isolation. In particular, CDP actions include

children's education, primary health care, legal support to women, income generation, skills training and savings and loan services, training of adolescents, and agricultural extension (www.rdrsbangla.net).

Since 2005, the RDRS has worked with 2 million people from the lowest-income groups in the Kurigram district as a partner of different national and international agencies (www.rdrsbangla.net). The statistics show that the people of the Char area (Sandbar area) in the district are the worst sufferers, and they have lived below the poverty line for ages. Different NGOs, including RDRS Bangladesh, have moved onto the Chars to improve living standards and reduce poverty among Char dwellers. After considering the facts above, the study sought whether the RDRS involvement of charwomen can reduce their extreme poverty and vulnerability in the Kurigram district.

1.1 Objective of the Study

The main research question in this study is: "Is there any role of RDRS Bangladesh in eradicating poverty among char dwellers in the study area?"

The following specific objectives will fulfil the primary research objective:

- i. To discuss the socio-economic profile of the respondent's family.
- ii. To discover the major perceived factors causing their poverty and vulnerabilities.
- iii. To assess whether involvement in the RDRS program helps reduce extreme poverty among the char dwellers in the study area.

2. Literature Review

Considerable studies have been done on the role of NGOs and the poverty of char residents. Some studies find it fruitful to be involved in NGOs, and some studies find it harmful.

Bangladesh is a country of delta basins in the flood plains of three great rivers. Brahmaputra-Jamuna, Padma and Meghna (Sarkar, et al., 2003). An estimated 6.5 million people live in 28 sub-districts of five districts, such as Kurigram, Jamalpur, Gaibandha, Bogra, and Sirajganj, and 2 million people live in Chars are extremely poor (www.clp-bangladesh.org).

Academics and researchers interested in human livelihood and socio-cultural perspectives primarily conduct Char land research in Bangladesh. The first was Adnan's (1976) study of power dynamics in a remote community in the Barisal region, a char land area. Currey's (1979) work in the Rangpur district was also recorded. The study's main goal was to investigate survival techniques during food scarcity.

Baqee (1998) conducted significant research, recognising the Char area as Allah Janne's land (God Knows). The study describes the vulnerability of the

people who live in Bangladesh's char lands. Using case studies, the paper focuses on the survival methods of people on the char land in the face of environmental and social crises.

Many studies focused on poverty status and the associated factors that cause poverty. Rahman (2007) conducted a study on 14 chars in the Jamuna basin in the northern portion of the country, which revealed that poverty status had changed significantly more than division, district, and char areas. A considerable part of the people (78%) was poor, and there was a noticeable difference between the mainland and the char land. Char dwellers' yearly per capita income was substantially lower than the national average, at BDT 14,955 (Barua, 2007; BBS, 2007). According to Barua and Sulaiman (2007), the poverty rate on char land is 1.5 times higher than in the mainland.

Char lands are unstable and prone to annual flooding. The char residents are the poorest and most vulnerable (Cameron & Trivedi, 1998). To cite the major reasons for their Poverty, Rahman (2007) concludes that char residents are marginalised by mainlanders' benefits for their primary communication networks in addition to the major physical risks associated with rivers. Kamal (2011) found that disaster incidents that increase their vulnerability affect everyday livelihoods in the chars.

Sarker et al. (2020) used the Resilience Index Measurement and Analysis (RIMA) methodology to investigate the livelihood resilience of vulnerable char dwellers. They discovered that char dwellers had a low level of stability, making them vulnerable to the effects of natural calamities. On the other hand, residents of char areas close to the mainland showed a higher (0.353) level of resilience than those in remote char areas (0.347). They also advised that a capacity-building initiative, including local government, NGOs, and public-private collaborations, is vital to improving the resilience of char dwellers across Bangladesh.

Most previous studies have concentrated on the role of NGOs in poverty reduction and the improvement of the standard of living. Uddin (2000) assessed the effects of the Grameen Bank microcredit program on rural female borrowers in a particular area of the Mymensingh district. It was discovered that after enrolling in the GB credit scheme, the members' living standards improved.

Chowdhury et al. (2005) empirically explored the role of microcredit in alleviating Poverty in Bangladesh. The primary findings were that microcredit was linked to lower objective and subjective poverty and that its effect on poverty was exceptionally high for around six years, with some levelling off after that.

Hashemi et al. (1996) analysed two Grameen Bank and BRAC programs that supplied credit to disadvantaged rural women in Bangladesh to alleviate poverty. They discovered significant results in decreasing poverty among rural women's households.

Several kinds of research have discovered that it has a good effect on living standards. Microfinance programs, for example, can be an efficient approach to delivering low-cost financial services to disadvantaged families and individuals (Miller & Martinez, 2006; Stephens & Tazi, 2006). Some studies, such as those by Hossain (1984), Hossain (1988), and Khandker and Chowdhury (1996), have directly assessed the impact of microcredit on poverty.

However, other research has indicated that microcredit does not reduce poverty. Due to the extra load of debt, poor households become even poorer. Microfinance programs, for example, have been proven in some studies to aid the moderately poor more than the impoverished, and their effect varies by income level (Copestake et al., 2001; Morduch, 1998; Dugger, 2004).

Regarding the failure of the work set by the NGO for the char people, Sultana and Islam (2017) found that even if intervention in the standard of living of NGOs somehow enhances their socio-economic status to such an extent that it can enable them to come out of the vicious cycle of poverty, the manoeuvre of a natural disaster or challenges can subside their bright future soon.

Haque et al. (2017) investigated whether and to what level the Char Livelihood Program (CLP) affects the residents of Sirajganj Char's livelihood and income-generating activities. The DFID of the United Kingdom (UK) implemented the program. They discovered that char dwellers on the islands are generally marginalised in comparison to their mainland counterparts in terms of physical isolation and vulnerability to flooding and erosion, which has resulted in seasonal migration and a greater reliance on traditional money lenders for credit supply, trapping them in a vicious cycle of debt and poverty. Their research also reveals that char dwellers' access to land resources has established legal possession and ownership of land.

Although a wealth of research papers on the role of NGOs in the development of char people from a national and international perspective are available, studies on NGO interventions for reducing extreme poverty with a particular geographic concentration are scarce. No empirical study has been done about the role of NGOs, especially for the people of Char lands in the Kurigram district. This study attempts to fill this research gap.

The hypothesis of the study

The research hypothesis is advanced based on the literature framework:

Null Hypothesis (Ho): An involvement in an RDRS program will possibly help reduce extreme poverty among the char dwellers.

Alternative Hypothesis (H₁): An involvement in the RDRS program will not help reduce extreme poverty among the char dwellers.

3. Methodology of the Study

3.1 Data collection and the study area

In the northwest region, Kurigram is the largest poverty-ridden district with many rivers and char dwellers. RDRS Bangladesh has been working to reduce extreme poverty and livelihood vulnerability in the charred area of Kurigram. Therefore, this district is selected for our study.

The study population consisted of female char dwellings in the area who had been beneficiaries of RDRS initiatives for at least one year. This research is conducted using both qualitative and quantitative methodologies. This study is based on both primary and secondary sources of information. Secondary data will be gathered from the Bangladesh Bureau of Statistics (BBS) for different years, RDRS, other agencies, and daily newspapers.

3.2 Sampling Process

A multistage sampling design is followed to collect primary data. In the first stage, among 9 Upazilas in the district, 2 Upazilas, namely Chilmari and Char Rajibpur, the highest char-dominated areas, are purposively selected based on the severity of poverty incidence that were identified through a review of upazila-wise poverty in the HIES survey-2016. In the second stage, two unions of the determined Upazilas are selected by simple random sampling. In the final stage, four villages are selected by simple random sampling from the selected unions. Finally, 160 women who directly or indirectly benefitted from the RDRS program were interviewed from various extreme poverty-concentrated areas of selected villages.

3.3 Analytical Framework

In this study, tabulated techniques are used through univariate and bivariate analysis to explain the overall socio-economic characteristics of the char residents in the study area. The collected data are scrutinised and summarised using statistical packages for the social sciences (SPSS) and Microsoft Excel-2010. An econometric model, such as a multiple logistic regression model, predicts whether women's participation in RDRS Bangladesh can significantly reduce extreme poverty. Poverty is the percentage of households with 'per capita household income' below or equal to the poverty line. Here, poverty means the lack of a minimum per capita household income ("1.90-day") of the respondent family. The World Bank defined "extreme poverty" as the percentage of people living on or below \$1.90 per day. In this study, the "\$1.90-a-day" international poverty line is

calculated and adjusted into Bangladeshi Taka using the country's PPP Conversion Factor published by the World Bank (Rahman & Islam, 2016). The poverty line in 2021 was the equivalent of BDT 1983 in a month. However, at the end of 2022, the international poverty line will be updated from \$1.90 to \$2.15 per person daily, equivalent to 2245 BDT/month in 2022.

3.4 Quantitative Analysis Section: Econometric Model

The following logistic regression model is estimated to estimate the factors determining the possibility of extreme poverty among char people who are beneficiaries of the RDRS program.

$$POV = \beta_0 + \beta_1 AGE + \beta_2 OCCPTN + \beta_3 EDU + \beta_4 RDRS + \beta_5 F_SIZE + \beta_6 ASSET + \beta_7 INCOME + \varepsilon_i$$

Where:

POV = Poverty Incidence (**Dependent variable**)

(1=Poor, 0= Otherwise)

Independent variables:

AGE= Age of the respondent in years

OCCPTN = Respondent's Occupation. (1= Salaried Job, 2= Business, 3= Farming, 4= Otherwise)

EDU= Year of schooling of the respondents

RDRS= Dummy variable (1= Beneficiary from any program of RDRS, 2= otherwise)

HH_SIZE = Family size of the respondents

ASSET= Amount of asset holding of the family in taka.

INCOME= Per capita income of the respondent family in a month.

ε_i = Disturbance term

$\beta_0, \beta_1, \dots, \beta_6$ are known as the parameters of the model or intercept and slope coefficients, respectively.

The study assumes that the probability of reduced poverty depends on these independent variables related to individual and household socio-economic characteristics. We have included these significant variables based on the literature review. According to theory and literature, our hypotheses are as follows: Age(X_1), Occupation(X_2), Education(X_3), RDRS involvement(X_4), family size (X_5), Average asset-holding family (X_6), and Average monthly income of the respondent (X_7) have a significant impact on poverty of the respondent in the study area.

4. Result and Discussion

4.1 Analysis of Descriptive Statistics

4.1.1 Socio-demographic Profile of the Respondents

Socio-economic characteristics play a catalytic role in affecting women's poverty through their participation in income-generating activities with the help of NGOs. Table 1 shows the age composition of the respondents. The age of the char dwellers is one of the essential aspects in establishing their personality makeup, which may play a critical influence in their poverty reduction.

Table 1-Socio-Demographic Profile of Women in Char area

Characteristics/ variables	Categories	Frequency (N=160)	Percentage
Age range	Less than 20	8	5
	20-29	42	26.25
	30-39	63	39.375
	40-49	28	17.5
	50 to above	19	11.875
Occupation	Salaried Job	21	13.12
	Business	25	16.5
	Farming	36	22.5
	Otherwise	78	48.75
Household size	1-3 persons	48	30
	4-6 persons	102	63.75
	Above 6 persons	10	6.25
Education level	Illiterate	63	39.375
	Literate	19	11.875

Source: Field Survey-2019

Table 1 shows that the bulk of the respondents (39.4 %) are between the ages of 30 and 39. Only 5% of respondents lie below 20, while about 26, 17.5, and 12% are 20-29, 40-49, and 50 to above age, respectively. Findings in Table 1 reveal that 20—to 39-year-old women comprise the majority of the charwomen, 65% of the total.

Regarding occupation, it shows that a significant (48.75%) proportion of respondents are either engaged in informal jobs or homemakers. About 22.5% of respondents are engaged in farming jobs, and the rest, 13.12% and 16.5% are

involved in salaried jobs and businesses, respectively.

Table 1 also demonstrates that about 64% of respondents belong to a family of 4-6 persons, whereas 30 % and 6 % have a family size of 1-3 and above six members, respectively.

Individual education aids decision-making, problem-solving, and developing a positive attitude toward income-generating activities. As a result, literate individuals can play a critical role in reducing poverty at the family level. Thus, the level of education induces poverty reduction among women. It is seen from Table 1 that 39.37% of respondents are illiterate or have the inability to sign. About 12% of respondents are literate but did not complete their primary education, whereas about 22% and 16% completed primary and Secondary School education. About 7% of respondents have HSC, and 5% have a degree or more than a degree-level education. It is clear from the table that most (87.5%) of the respondents are not their family heads.

4.1.2 Average earning, borrowing, and saving of the respondent family

Table 2 reveals that their average monthly income level is very low. Char dwellers are hard workers and largely participate in various income-generating activities but have relatively lower monthly income due to individual and external factors like uncertain flood erosion, natural disasters, geographical challenges, and some internal factors, including lack of education, engagement in informal jobs, etc. It is noted from the table that about 43% of respondents get below 1000 Tk/month, and 32.5 % of respondents get 1001–2000 Tk/month, while 11.25 %, 3% and 2.5% of respondents get 2001–3000 Tk in month, 30001-4000 Tk/month and 4001-5000 taka/month respectively. The rest, 7.5 % of the respondent's family income, is above 5000 Taka in a month.

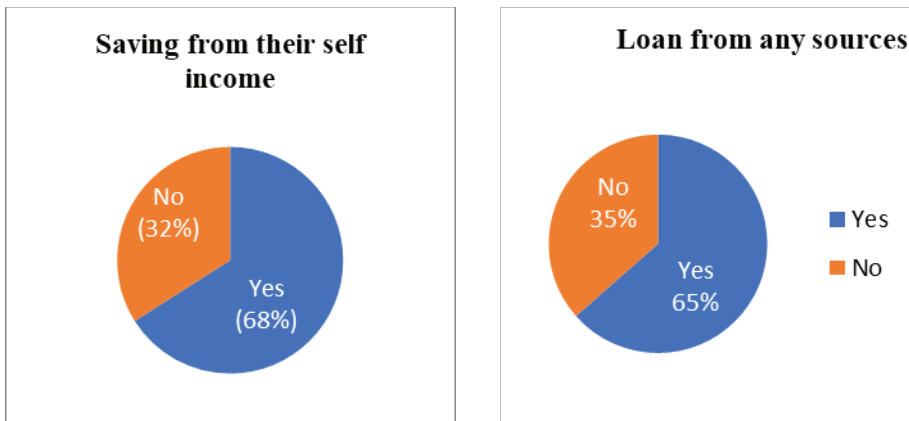
Table 2: Average monthly income of the respondent

Categories	Frequency(N=160)	Percentage
0-1000	69	43.13
1001-2000	52	32.5
2001-3000	18	11.25
3001-4000	5	3.13
4001-5000	4	2.5
Above 5000	12	7.5

Source: Field Survey 2019

Figure 1 reveals that the majority (68%) of the respondents have a saving tendency, but at the same time, most of them (65%) have loan-taking behaviour from the neighbouring NGO or other sources. They save or borrow through different non-formal samity or local NGOs. Some of them deposit their savings to and borrow from the banking sector, but very few respondents get an opportunity from the banking sector.

Figure 1: Saving and loan behaviour of the respondent

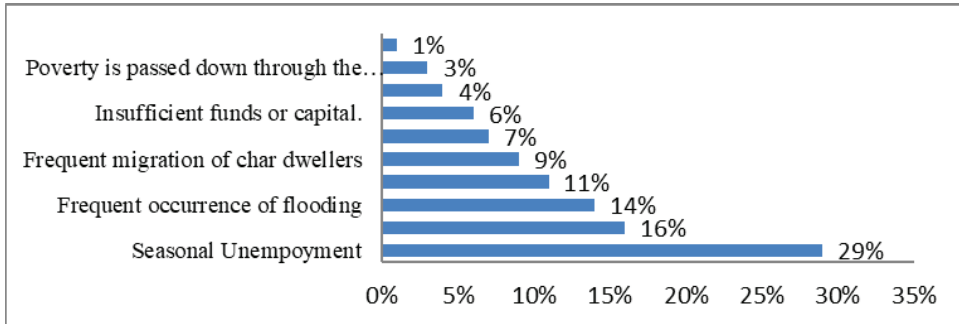


Source: Field Survey-2019

4.1.3 Reasons for Poverty and vulnerabilities of the respondent family

Poverty and vulnerability among char dwellers are not separate issues; they are intertwined with various social, economic, and personal concerns. The research reveals some factors contributing to their poverty (which are not mutually exclusive). According to survey findings, the major causes of their poverty are-, Insufficient land for cultivation due to sandy soil, Frequent occurrence of flooding, seasonal unemployment, Char area's riverbank erosion, Frequent migration of char dwellers, Frequent Natural disasters (drought, cyclone), Insufficient funds or capital, poverty is passed down through the generations, Insufficient education facilities, and Inadequate training facilities which are described with a percentage in figure-2. The figure shows that most (29%) respondents are poor and unemployed at regular intervals during the specific season.

Figure 2: Major Causes of Poverty perceived by respondents



Source: Field Survey-2019

4.2 Quantitative Analysis

4.2.1 Interpretation of Regression Result

Table 3 briefly discusses the result of the estimated logistic regression model for the respondent family’s poverty. Multiple logistic models are estimated to test the research hypothesis regarding the relationship between the likelihood of the respondent’s involvement in the RDRS program as a beneficiary and the change in extreme poverty of respondents.

Table 3: Regression Results of Logistic Model for Poverty

Variables	Odds Ratio	Standard Error	Wald
(Constant)	2.525	0.718	12.368
X_1 (Age Level)	-0.302**	0.128	5.567
X_2 (Occupation)	0.253**	0.112	5.103
X_3 (Education)	-0.303*	0.161	3.538
X_4 (RDRS)	-0.283*	0.142	3.980
X_5 (Family Size)	0.176*	0.096	3.358
X_6 (Asset holding)	-0.285**	0.122	5.486
X_7 (Income of the respondent family per month)	-0.375**	0.165	5.169

Note: Dependent Variable: Poverty, Sample Size N=160 Nagelkerke $R^2 = 0.69$

***, **, * indicate significant at 1%,5%, and 10% level respectively

Source: Authors’ own calculation based on Field Survey-2019

The estimated result shows that variables like Age (X_1), Education (X_3), Average monthly income of the respondent (X_7), Asset holding (X_6), and RDRS intervention (X_4) have a statistically negative significant impact, but family size (X_5) and occupation (X_2) have a statistically positively significant effect on the possibility of poverty of the respondent at various levels of significance ($\alpha=1\%, 5\% \& 10\%$).

According to the regression result, the log odd of poverty is negatively related to the age of the women at a 5% level of significance. This indicates that the older the woman, the more likely to contribute to the family income and reduce poverty. A one-unit increase in women's age decreases the likelihood of women's poverty by 0.302, with other things remaining constant. Table 3 shows that poverty is positively associated with occupation and family size at 5% and 10% significance levels, respectively. Accordingly, any occupational change from a salaried job to an unpaid job increases the likelihood of poor by 0.253, keeping the other variables constant.

Similarly, the larger the family size, the greater the likelihood of poverty. Regarding the effect of education, it is found that the log odds of women's poverty decrease by 0.303 as the respondents are more educated. Other things remain constant. This indicates that education is essential for the reduction of poverty among respondents. Women who are RDRS program beneficiaries have an almost 0.283 times higher probability of reducing poverty, while other things remain constant. The result shows that the change significantly negatively influences the log odds of poverty in the average asset value of the family and average per month income with 5% statistical significance, respectively. The log odds of the likelihood of women's poverty decreases by 0.285 as the average asset value of the respondent increases, and the probability of poverty decreases by 0.375 when the respondent's income rises; other things remain constant.

5. Summary and Conclusion

The paper has attempted to assess the socio-economic profile of the beneficiary women of the RDRS program. It also explores the role of an NGO in extreme poverty reduction and finds out the perceived reasons for the extreme poverty of char residents. The descriptive result shows that the respondents' socio-economic background is not overall sound in the study area. Most female respondents (39.4%) are in the 30–39 age group. Education status among respondents is worse on average.

The paper found that most women work hard daily, but their monthly average income is minimal. More than 43% of the respondents earn less than 1000 Tk monthly. Most respondents (68%) tend to save, but at the same time, most (65%) have loans dealing with neighbouring NGOs. The paper also explores the major reasons

for their extreme poverty level. Two main reasons are seasonal unemployment and insufficient land for cultivation due to sandy soil. The regression results of the logistic model suggest that all socio-economic characteristics, including age, occupation, education, asset value, RDRS interventions, family size, and income level per month, likely significantly affect women's poverty in the study area. More importantly, for the women involved in the RDRS program, the probability of poverty reduction is higher for their families.

This research will help identify the root causes of poverty and livelihood weaknesses in the region. Thus, appropriate courses of action can be taken to develop this backward region and sustain growing national development. About the obtained result, there are many recommendations to eradicate extreme poverty in the Kurigram Char region. The most important suggestions are-

- i. Appropriate and more initiatives would be taken to increase the number of schooling years for women in the Char area.
- ii. Ensure the physical structure for education service so that local people are encouraged to stay connected, adjust to seasonal disruptions, and continue communication for their development.
- iii. The government or NGO should form volunteer groups to help adjust to break studies during the disaster and revitalise the char. Also, the satellite program can help develop higher studies among Char people.
- iv. The government and NGOs should generate more formal or salaried jobs to accelerate poverty reduction among women in the charred area.
- v. Large-scale credit facilities / financial assistance from the government and NGOs are essential for poverty reduction.

There are also some weaknesses to this study. Firstly, while analysing poverty, the study considered a sample size of 160 out of many existing respondents. Secondly, the study only assumed the average income of the respondent family to determine their poverty level. Thirdly, the study excluded the income of those working and contributing informally to the family income. Fourthly, measuring the actual poverty level, magnitude, and change over time in the study area was impossible. Finally, the study could review both socio-economic background changes over time and their poverty dynamics, but it is excluded in this report due to inadequate time. However, in our opinion, this paper has a significant impact and might allow policymakers to prescribe proper initiatives for reducing extreme poverty in the charred area of Bangladesh.

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