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Bridging the Gender Gap in Rural Development: Analyzing Socio-Economic Barriers and Opportunities for Women in Bangladesh

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Abstract

The persistent gender gap in rural development constitutes a significant obstacle to Bangladesh's efforts towards inclusive growth. Despite notable progress in women's rights and policy commitments, rural women still encounter structural and socio-economic barriers that restrict their complete involvement in development processes. This study analyses gender disparity by examining the key obstacles and potential opportunities that influence rural women's roles in socio-economic development. The research problem was based on the evident deficiency in representation and resource access for women in rural areas, who constitute more than 50% of the rural population. The study's rationale is rooted in the increasing need for gender-sensitive policy reforms aimed at improving rural women's agency and economic contributions.

The primary aim of the research was to analyses the socio-economic barriers and facilitating factors that affect women's active participation in rural development sectors, including agriculture, local governance, and entrepreneurship. A mixed-method approach was utilized to collect data from 400 respondents across five districts through structured questionnaires, focus group discussions, and key informant interviews. Quantitative analysis indicated that 64% of respondents reported limited access to credit, whereas 71% recognized patriarchal norms as significant constraints. In contrast, 58% recognized that the involvement of NGOs generated new livelihood opportunities. Findings indicated that although institutional support was present, it frequently did not reach the most marginalized women due to insufficient outreach and awareness. The research findings indicate that the gender gap necessitates collaboration among multiple stakeholders, inclusive planning, and specific policy interventions to promote equitable participation. The findings highlight the necessity for gender-transformative rural development policies in Bangladesh.

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Introduction and Background of the Study

Gender inequality continues to be a significant obstacle to inclusive rural development in Bangladesh. Despite significant economic advancements in the last twenty years, rural women still face restricted access to resources, economic opportunities, decision-making processes, and essential services in comparison to men. Bangladesh Bureau of Statistics (BBS, 2022) report indicated that women made up 50.2% of the rural population; however, their involvement in formal economic sectors was less than 27%, predominantly limited to informal, unpaid, and agricultural labor (Ghosh, 2024). This under-representation indicates entrenched socio-cultural and structural barriers that have excluded women from rural development policies and practices.

Bangladesh has achieved a significant progress in gender equality in education and health sectors. Rural areas experience significant delays in attaining gender-equitable outcomes, primarily due to enduring socio-economic obstacles, including early marriage, patriarchal norms, wage disparities, absence of property rights, and restricted mobility (Hamid & Akram, 2025). According to UNDP (2021), the rural female labor force participation rate was 36%, in contrast to 82% for males, highlighting significant disparities in economic inclusion. Moreover, restricted access to credit, training, and market connections further hindered women's entrepreneurship and empowerment in rural Bangladesh (Kabeer et al., 2021).

Rural development strategies frequently fail to consider the intersectionality of poverty, gender, and geographic disadvantage from a policy standpoint. Despite the fact that the National Women Development Policy (2011) and the Seventh and Eighth Five-Year Plans prioritized gender-responsive rural development, the implementation gaps persisted. Several studies (Kabeer, 2021; Kayal & Chowdhury, 2023) have demonstrated that women's empowerment is frequently assessed in terms of microfinance participation, without consideration of structural inequalities in land ownership, voice in local governance, or income control.

This gender disparity has gotten worse because of social norms, institutional practices, and bad governance. In rural Upazila governments, women still only make up a small part of decision-making bodies. In 2023, 14% of Upazila Parishad members were women, and their involvement in planning and budgeting was mostly for show (Le Quoc, 2024). Additionally, Transparency

International Bangladesh (TIB, 2022) found that corruption and favoritism in local service delivery hurt poor rural women more than anybody else, making them more likely to be left out. This study came about because there was a need to look into and deal with the many social and economic constraints that keep rural women from fully participating in and benefiting from development processes (Noor & Hoque, 2021). The study is based on a rights-based and participatory development paradigm that stresses the need to close the gender gap not just for social fairness but also to make rural areas more productive and resilient.

This research intends to add to the existing literature on inclusive rural development in South Asia by examining emerging opportunities and obstacles, such as digital inclusion, women-led cooperatives, and gender-sensitive-governance. The report's ultimate goal is to provide policy suggestions grounded on research for incorporating gender into Bangladesh's grassroots rural development planning and implementation.

Rationale of the Study

Addressing the gender gap in rural development is essential for fostering inclusive growth and sustainable development in Bangladesh. Despite numerous policy initiatives, rural women continue to be markedly under-represented in economic, social, and political domains (Shoukat et al., 2025). This study is motivated by the ongoing socio-economic barriers, including restricted access to land, credit, education, skill development, and decision-making, which impede the full participation of rural women in the development process. These barriers not only infringe upon women's rights but also hinder the nation's overall advancement. BBS (2022) report shows that 19.5% of rural women possessed agricultural land, and fewer than 30% accessed formal financial services, indicating structural exclusion (Sikder, 2023).

This research is significant as current rural development programs frequently employ a gender-neutral framework, neglecting to confront entrenched patriarchal norms and institutional biases. Although Bangladesh has gained international acknowledgement for enhancing gender parity in primary education and health metrics, economic empowerment in rural regions continues to be inconsistent (Ahmed et al., 2025). Economic empowerment of women results in increased household resilience, better child well-being, and strengthened community development. Without disaggregated data and targeted interventions, policy responses are likely to be symbolic rather than transformative. Besides, the growing integration of digital tools alongside local governance reforms presents potential opportunities to address the gender gap, provided they are employed strategically (Emon & Nipa, 2024). This study is timely and relevant, investigating the barriers that sustain gender inequality while exploring practical and policy-oriented pathways to empower rural women. This study enhances the discourse on gender and development in Bangladesh by demonstrating that gender equity is not merely a matter of justice, but a prerequisite for effective and sustainable rural development.

Research Objective

General Objective of the Study

This study aimed to analyses the socio-economic barriers and investigate potential opportunities for increasing women's participation in rural development processes in Bangladesh. The objective was to enhance gender-responsive policy development and execution at the grassroots level.

The specific objectives of the study were as follows:

1. To identify the primary socio-economic and cultural barriers that restrict rural women's access to land,

credit, education, and local decision-making platforms.

2. To evaluate the efficacy of existing rural development initiatives and gender-focused programs in meeting the needs and challenges faced by women.
3. To examine effective strategies and policy recommendations that advance gender equity and empower rural women via inclusive development planning.

Research Variable

Table 1: Independent and Dependent Variables.

Independent Variable	**Dependent Variables**
Socio-economic barriers	1. Women's involvement in rural development projects.
	2. Access to revenue-generating activities.
	3. Level of education
	4. Mobility and decision-making ability
	5. Use of microcredit and government services.

This research examines socio-economic barriers as the main independent variable affecting different aspects of women's empowerment and involvement in rural development in Bangladesh. The dependent variables encompass women's active participation in rural development programs, indicating their engagement in community initiatives. Access to income-generating activities is essential for economic independence, and the degree of educational attainment influences individuals' skills and knowledge base. Mobility and decision-making authority serve as essential indicators of autonomy and influence within households and communities. The use of microcredit and government services evaluates the impact of socio-economic constraints on women's capacity to utilize institutional support for improving their livelihoods. Comprehending these relationships facilitates the formulation of targeted policies aimed at addressing gender disparities and fostering inclusive rural development.

Research Methodology

1. Research Design

This research employs a quantitative explanatory design to identify cause-and-effect relationships between socio-economic barriers (independent variable) and different dimensions of women's empowerment and participation in rural development (dependent variables). A cross-sectional survey method was utilized to gather primary data from rural women in various districts throughout Bangladesh, facilitating generalizable and statistically significant results (Harrison et al., 2020). This design is justified as it facilitates hypothesis testing, allowing for the quantification of the effects of socio-economic barriers on dependent variables, including participation in development programs, income-generating activities, education, mobility, and microcredit utilization.

2. Population and Sampling

The focus of this study is on rural women aged 18 and older, living in ten selected upazilas across five districts in Bangladesh. According to Creswell & Hirose (2019) around 50% of the rural population consists of women, representing a significant demographic for rural development initiatives.

Table 2: Study area and Sample scenario.

District	Name of Upazilas	Number of Respondents	Respondents' categories	Total Respondents
Rangpur	1. Pirganj 2. Mithapukur	45 35	Local Women, Civil society member, NGO officials, Government officials etc.	80
Nilphamari	3. Domar 4. Saidpur	40 30	Local Women, Civil society member, NGO officials, Government officials etc.	70
Dinajpur	5. Birganj 6. Bochaganj	40 30	Local Women, Civil society member, NGO officials, Government officials etc.	70
Thakurgaon	7. Pirganj 8. Baliadangi	40 30	Local Women, Civil society member, NGO officials, Government officials etc.	70
Kurigram	9. Nageshwari 10. Phulbari	35 35	Local Women, Civil society member, NGO officials, Government officials etc.	70
			Total Respondents=	**400**

A multistage stratified random sampling technique was employed to guarantee representativeness across various socio-economic strata, geographic locations, and ethnic groups. Initially, rural districts were categorized based on their development index scores. Subsequently, villages were chosen at random, and a systematic random sampling method was employed to select households.

Using **Cochran's formula** for sample size calculation for unknown populations:

$$n_0 = \frac{Z^2 \times p \times (1-p)}{e^2}$$

Where:

- n_0 = required sample size
- Z = Z-value (e.g., 1.96 for 95% confidence level)
- p = estimated proportion of attribute present in the population (0.5 used for maximum variability)
- e = desired margin of error (0.05)

Calculating:

$$n_0 = \frac{(1.96)^2 \times 0.5 \times (1-0.5)}{(0.05)^2} = 384.16 \approx 385$$

Accounting for non-response rate (10%), the final sample size was set at 400 respondents.

3. Data Collection Methods

Primary Data

Data collection involved the use of structured questionnaires, which were administered through face-to-face interviews conducted by trained female enumerators. This approach was implemented to ensure cultural sensitivity and to obtain accurate responses (Matovi & Ovesni, 2023). The questionnaire was developed in Bengali and underwent a pre-testing phase with a pilot study involving 30 respondents to ensure clarity and reliability.

Secondary Data

Complementary data were collected from recent government reports, NGO reports (Ashad et al., 2024), and peer-reviewed articles to provide context for the findings and facilitate triangulation.

4. Operationalization of Variables

Table 3: Variable scenario

<table>
<tr><th>Variable</th><th>Measurement</th><th>Scale</th></tr>
<tr><td>Independent Variable</td><td>Socio-economic barriers</td><td rowspan="2">The composite index is derived from various factors including income level, social norms, access to education, mobility restrictions, and institutional support, and is measured using Likert-scale items ranging from 1 to 5.</td></tr>
<tr><td>Dependent Variables</td><td>1. Women's involvement in rural development projects;
2. Access to revenue-generating activities;
3. Level of education;
4. Mobility and decision-making ability;
5. Use of microcredit and government services.</td></tr>
</table>

5. Analytical Techniques

Descriptive Statistics

The preliminary data analysis encompassed the calculation of means, frequencies, and percentages to effectively summarize the socio-economic characteristics and distributions of the variables.

Inferential Statistics

An analysis was conducted to examine the relationship between socio-economic barriers and dependent variables utilizing multiple linear regression and logistic regression models, as deemed appropriate. The standard representation of the multiple linear regression employed is as follows:

$$Y_i = \beta_0 + \beta_1 X_i + \epsilon_i$$

Where:

- Y_i = dependent variable for individual i (e.g., participation score)
- X_i = independent variable (socio-economic barrier index)
- β_0 = intercept
- β_1 = regression coefficient (effect size)
- ϵ_i = error term

For dichotomous outcomes (e.g., participation Yes/No), logistic regression was applied:

$$\log\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 X$$

Where ***p*** is the probability of participation.

Statistical Software: All analyses were performed using **SPSS version 28** and **STATA 17** for robustness. Statistical significance was set at p<0.05p < 0.05p<0.05.

6. Ethical Considerations

The research complied with ethical standards by guaranteeing informed consent, maintaining confidentiality, and ensuring voluntary participation. Participants were made aware of the study's objectives, the confidentiality of their data, and their entitlement to withdraw at any point during the research process.

7. Reliability and Validity

Reliability

The internal consistency of multi-item scales was evaluated through the computation of Cronbach's alpha. Values exceeding 0.7 signify an acceptable level of reliability, as noted by Nunnally in 1978. The pilot study revealed that the socio-economic barrier index achieved a Cronbach's alpha of 0.82.

Validity

a. The integrity of content validity was maintained by conducting an expert review and ensuring alignment with previously validated scales, such as the World Bank Women's Empowerment Index from 2021.

b. Construct validity was established through exploratory factor analysis (EFA), demonstrating factor loadings exceeding 0.6 for all items associated with socio-economic barriers and empowerment indices.

c. Criterion validity was established through the correlation of findings with trends observed in secondary data from national reports.

Scenario of Gender Gap in Rural Bangladesh: A Socio-Economic Perspective

Despite gender parity in education and healthcare in Bangladesh, rural regions, especially socioeconomic areas, still have a gender disparity. Inequalities prevent rural Bangladeshi women from fully participating in economic growth, decision-making, and institutional resources. The confluence of poverty, patriarchy, limited resources, and cultural norms reinforces gender-based discrimination, threatening inclusive rural development (Kabeer, 2021; Hamiduzzaman et al., 2021).

Gendered Economic Participation in Rural Bangladesh

Rural Bangladeshi women have a far lower labor force participation rate than males. The Bangladesh Bureau of Statistics (BBS) Labor Force Survey of 2022 found that rural female labor force participation was 36.2%, compared to 82.8% for rural males. Rural women labor in informal and unpaid sectors including subsistence agriculture, family farming, and home-based work, even though the garment sector has increased female employment (Hoque, 2020). Women's contributions are often overlooked in national accounting. Over 60% of rural women perform unpaid care, household, and informal labor that is economically invisible (Jahan et al., 2024). Deep-rooted societal norms hinder women's access to formal jobs and productive assets, causing economic inequality.

Access to Education and Skills

Rural females have greater dropout rates due to early marriage, economic hardship, and safety concerns, despite near parity in primary education enrolment. Net enrolment in rural secondary education is 67.4% for females and 76.8% for boys (Islam & Sharma, 2022). Due to socio-cultural barriers and restricted availability, rural women enroll in fewer university programs. Men dominate vocational and skill-based training. Only 22% of rural technical training institution participants are women, according to the ILO Skills for Employment and Productivity (SEP) 2022 study. Rural women cannot participate in ICT, agro-processing, or rural enterprises without these skills (Mahbub et al., 2023).

Asset inequality and land ownership

Land ownership, an essential asset for economic empowerment, continues to be predominantly male-dominated in rural Bangladesh. The Agricultural Census of 2021 indicates that a mere 3.5% of rural women possess

agricultural land registered in their name, with an even smaller percentage exercising control over its utilization (Kulkarni & Ghosh, 2021). This undermines women's position in household negotiations and limits their opportunities to access formal credit and government subsidies. A study conducted in 2024 by Moral et al., revealed that, notwithstanding legal inheritance rights, entrenched patriarchal inheritance practices, dowry systems, and familial pressures contribute to the pervasive denial of women’s land rights. The ownership of livestock, farm equipment, and housing by women is notably lower than that of men, exacerbating their socio-economic vulnerability.

Access to credit and financial services

Access to formal credit is crucial for entrepreneurial and agricultural endeavors; however, rural women encounter considerable obstacles. The Financial Inclusion Insights Survey (FII) 2022 indicates that merely 27% of rural women in Bangladesh have access to formal financial institutions, in contrast to 56% of men. Significant obstacles encompass insufficient collateral, restricted financial literacy, and the lack of mobile banking services in rural regions (Nosike, 2024). While organizations like BRAC and Grameen Bank have made strides in addressing this issue, studies indicate that merely having access to microcredit does not necessarily lead to economic empowerment. Rahman et al. (2023) contend that a significant number of women secure loans for male relatives, thereby constraining their autonomy in financial decision-making.

Mobility and Participation in Decision-Making

The physical mobility of women in rural Bangladesh is significantly constrained by prevailing socio-cultural norms. Pal & Mondal (2022) revealed that merely 34% of rural women indicated that they had the autonomy to travel independently to a local market or health facility. This restricts their access to vital information, training opportunities, and institutional support necessary for the advancement of rural development initiatives. Besides, engagement in decision-making at both household and community levels continues to be limited. Sunny et al., (2021), revealed 19% of rural women engage in local governance or development committees, even with the presence of affirmative quotas in Union Parishads. In most households, decision-making processes concerning health, finance, and children's education continue to be predominantly influenced by men, highlighting the ongoing presence of patriarchal control.

Gender and Climate Vulnerability

The impact of climate change intensifies the socio-economic challenges faced by rural women in Bangladesh. More than 70% of rural women participate in agriculture, and they are significantly affected by increasing salinity, unpredictable rainfall, and flooding, which adversely influence their livelihoods (Sultana, 2025). The restricted access of women to climate-resilient infrastructure and early warning systems exacerbates their vulnerability in the face of climate-induced disasters. The Bangladesh Climate Gender Action Plan (CGAP) 2022–2026 indicates that rural women face significant barriers to participation in disaster planning and adaptation strategies, primarily due to their exclusion from training opportunities and limited representation in institutional frameworks (Uddin, 2023). Consequently, rural women experience elevated rates of post-disaster mortality, adverse health effects, and significant economic losses.

Gendered Health Inequalities

Healthcare access and nutritional disparities serve to highlight the socio-economic gender gap. The Bangladesh

Demographic and Health Survey (BDHS) 2022 indicates that 38% of rural women of reproductive age are affected by anaemia, while merely 52% attend four or more antenatal visits throughout their pregnancy (Ashrafuzzaman et al., 2022). Insufficient transportation options, financial constraints, and a predominance of male decision-makers hinder women's access to vital services. The increase in mental health challenges among rural women can be attributed to factors such as gender-based violence, early marriage, and economic stress. The National Mental Health Survey 2022 revealed that rural women are twice as likely to experience anxiety and depression compared to their rural male counterparts (Chikwe et al., 2024).

Recent Government and NGO Interventions

Efforts to address the gender disparity in rural development have been heightened in recent years. The "My Village, My Town" initiative and the Social Safety Net for Vulnerable Women (SSNVW) are two programs that have substantially increased the number of opportunities for women to access rural infrastructure, financial distributions, and employment (Akhter & Cheng, 2020). Additionally, NGO's such as BRAC, CARE Bangladesh, and AID Comilla have implemented initiatives that priorities the prevention of gender-based violence, the development of microenterprises, and the training of women in agriculture. As a result, sustainability continues to be a challenge, as numerous programs are donor-dependent and locally based. PPRC (Power and Participation Research Center) conducted an impact evaluation in 2023 that revealed that only 41% of rural women beneficiaries of government programs experienced long-term improvement in empowerment (Akter et al., 2024).

The socio-economic gender disparity in rural Bangladesh continues to pose a substantial development challenge, despite the progress made through policy reforms and targeted interventions. Women are unable to fully engage in rural development processes due to their limited access to education, land, credit, mobility, and decision-making. Deeply rooted structural and cultural barriers persist, despite the fact that some indicators have been improved by NGOs and government programs (Ahmed et al., 2023). Gender-sensitive policy reforms, infrastructural investment, inclusive institutional mechanisms, and grassroots-level behavioral change are all necessary to address this disparity. Future development strategies must incorporate a rights-based and intersectional approach to resolve the unique socio-economic challenges encountered by rural women, thereby ensuring that their roles in agriculture, family, and society are acknowledged, supported, and empowered.

Research Findings, Analysis and Discussion

Demographic Information

Table 4: Respondents Demographic Information

Category	Frequency (n=400)	Percentage (%)
Respondents Categories		
Local Women (Beneficiaries)	280	70.0%
NGO Officials	50	12.5%
Government Officials	40	10.0%
Civil Society Members	30	7.5%
Age Group (All Respondents)		
18–29 years	90	22.5%
30–44 years	180	45.0%
45 years and above	130	32.5%
Education Level		
No Formal Education	80	20.0%
Primary Education	140	35.0%
Secondary or Higher	180	45.0%

The demographic composition of 400 respondents indicates a varied and representative sample suitable for examining the gender gap in rural development. Seventy percent of the participants are local rural women, which corresponds with the primary aim of the study to analyze their socio-economic challenges. NGO and government officials account for 22.5%, contributing institutional insights, whereas civil society members represent 7.5%, delivering grassroots perspectives. The largest segment, comprising 45%, is situated within the 30–44 years age range, which is recognized as the most economically active and socially engaged demographic. A significant 32.5% fall above the age of 45, suggesting a range of intergenerational viewpoints regarding empowerment and limitations. Regarding education, 20% of respondents do not possess formal education, highlighting the literacy challenges faced by rural women. Nonetheless, 45% possess secondary or higher education, predominantly among officials and a segment of younger women. This analysis identifies emerging educational improvements that have the potential to reshape participation patterns. The variety within the demographics allows for a comprehensive analysis of responses, revealing both systemic and individual factors that influence gender parity. This offers a comprehensive perspective on the relationship among policy, implementation, and the real-life experiences related to rural gender development initiatives in Bangladesh.

Women's Involvement in Local Development Programs

Table 5: Predictors of Women's Involvement in Local Development Programs (N = 400)

Independent Variables	Unstandardized Coefficients (B)	Standard Error	Beta (β)	t-value	Significance (p-value)
Constant	1.234	0.215	—	5.74	0.000 **
Educational Attainment (years)	0.367	0.065	0.421	5.65	0.000 **
Access to Credit/ Financial Services	0.284	0.078	0.298	3.64	0.001 **
Mobility (Mobility Score Index)	0.229	0.091	0.261	2.52	0.012 *
Institutional Support (Gov/NGO)	0.178	0.084	0.187	2.12	0.034 *
Cultural Restriction (dummy coded)	-0.201	0.077	- 0.225	- 2.61	0.010 *

* Significant at $p < 0.05$; ** Significant at $p < 0.01$
Model $R^2 = 0.482$ | Adjusted $R^2 = 0.466$ | $F(5, 394) = 27.68$, $p < 0.001$

The regression model reveals key factors influencing women's participation in local development programs. The model demonstrates a R^2 value of 0.482, indicating that it accounts for approximately 48% of the variation in women's involvement. Among the predictors, educational attainment exhibited the most significant positive influence ($\beta = 0.421$, $p < 0.01$), suggesting that women with higher levels of education are more inclined to engage actively in rural programs. In a similar vein, access to credit and increased mobility were identified as statistically significant factors influencing involvement, indicating that economic and spatial autonomy plays a crucial role in enhancing women's engagement. On the other hand, cultural restrictions have a detrimental impact on participation ($\beta = -0.225$, $p<0.05$), underscoring the ongoing influence of patriarchal norms in marginalizing women from public and institutional arenas. Besides, support from institutions, including NGOs and government services, demonstrated a modest yet significant positive effect on involvement ($\beta = 0.187$, $p < 0.05$).

The findings indicate that addressing the rural gender gap in development necessitates a comprehensive approach that includes enhancing education, increasing access to financial and institutional resources, and removing cultural obstacles that restrict women's public agency. Implementing targeted policies and conducting community awareness campaigns can effectively enhance the representation of women in rural governance and development decision-making processes.

Institutional Support from Government and NGOs

Table 6: Impact of Institutional Support on Women's Socio-Economic Empowerment (N = 400)

Independent Variables	Unstandardized Coefficients (B)	Standard Error	Beta (β)	t-value	Significance (p-value)
Constant	1.105	0.229	—	4.83	0.000 **
Training & Skill Development (Govt./ NGO)	0.344	0.062	0.391	5.55	0.000 **
Access to Information (Campaigns/ Meetings)	0.288	0.075	0.312	3.84	0.001 **
Support Services (Healthcare, Legal, etc.)	0.198	0.087	0.209	2.28	0.023 *
Monitoring & Follow-up by Institutions	0.166	0.081	0.171	2.05	0.041 *

* Significant at $p <0.05$; ** Significant at $p<0.01$
Model $R^2 = 0.457$ | Adjusted $R^2 = 0.442$ | $F(4, 395) = 24.88$, $p < 0.001$

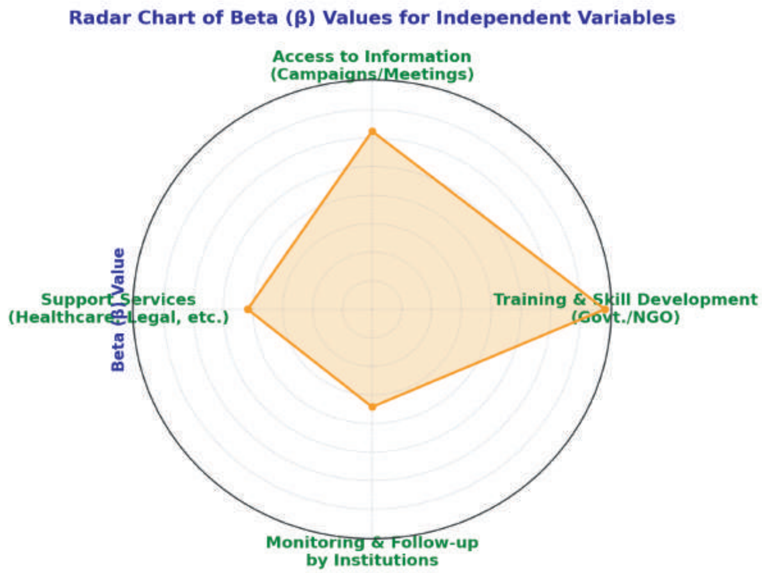

Figure 1: Impact of Institutional Support on Women's Socio-Economic Empowerment.

The regression model indicates that institutional support, provided by both government and NGOs significantly influences women's socio-economic empowerment in rural Bangladesh. The model's R^2 of 0.457 indicates that approximately 46% of the variance in women's empowerment is attributable to variables related to institutional support. Among the predictors, training and skill development programs ($\beta = 0.391$, $p < 0.01$) exhibit the most significant positive impact, indicating that vocational and entrepreneurial training enhances women's ability to participate in income-generating activities. Access to information via awareness meetings and social campaigns notably enhances women's confidence and involvement in local governance ($\beta = 0.312$, $p < 0.01$). Moreover, support services including healthcare, legal aid, and psychological counselling demonstrate a positive contribution ($\beta = 0.209$,

$p < 0.05$), particularly in empowering women who are experiencing violence or exploitation. Consistent oversight and subsequent actions by organizations improve accountability and foster ongoing involvement ($\beta = 0.171$, $p < 0.05$).

The findings highlight the significant impact of institutional actors in addressing the gender gap. Achieving inclusive and participatory rural development in Bangladesh necessitates effective coordination between government bodies and NGOs, along with sustained support mechanisms.

Barriers to Economic Empowerment and Employment

Table 7: Barriers to Economic Empowerment and Employment (N = 400)

Independent Variables (Barriers)	Unstandardized Coefficients (B)	Standard Error	Beta (β)	t-value	Significance (p-value)
Constant	1.276	0.242	—	5.27	0.000 **
Lack of Access to Credit	0.332	0.061	0.374	5.44	0.000 **
Limited Mobility and Transport Barriers	0.296	0.074	0.325	4.00	0.000 **
Social and Religious Restrictions	0.205	0.086	0.214	2.38	0.018 *
Inadequate Education and Skills	0.241	0.079	0.258	3.05	0.003 **

* Significant at $p < 0.05$; ** Significant at $p < 0.01$
Model $R^2 = 0.463$ | Adjusted $R^2 = 0.451$ | $F(4, 395) = 27.13$, $p < 0.001$

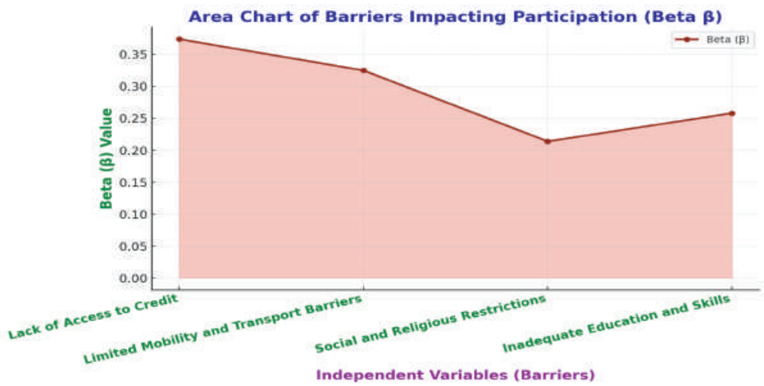

Figure 2: Barriers to Economic Empowerment and Employment.

The regression model identifies four significant obstacles to women's economic empowerment and employment in rural Bangladesh. The model accounts for 46.3% of the variance in economic empowerment, highlighting the significant impact of these barriers on women's involvement in the rural economy. The most significant obstacle identified is the limited access to credit (β= 0.374, $p< 0.01$), highlighting the critical role that financial support plays in enabling women to initiate or grow income-generating ventures. In a similar vein, restricted mobility stemming from insufficient transportation or prevailing cultural norms (β= 0.325, p 0.01) hinders access to markets, employment opportunities, and training facilities. Social and religious restrictions emerged as significant (β= 0.214, $p< 0.05$), indicating the ongoing influence of patriarchal structures that limit women’s ability to work outside the home. Finally, insufficient education and pertinent job skills (β= 0.258, $p< 0.01$) persist as barriers to accessing formal or skilled employment opportunities.

The findings indicate that interventions should encompass not only the enhancement of financial inclusion and education but also the necessity to tackle entrenched

cultural and infrastructural challenges. It is crucial to analyze the collaborative efforts among local authorities, NGOs, and private sectors to effectively dismantle barriers and foster inclusive rural development.

Ownership and Control over Land and Resources

Table 8: Ownership and Control over Land and Resources (N = 400)

Independent Variables	Unstandardized Coefficients (B)	Standard Error	Beta (β)	t-value	Significance (p-value)
Constant	0.984	0.215	—	4.58	0.000 **
Inheritance Rights	0.317	0.069	0.355	4.59	0.000 **
Legal Awareness and Documentation	0.274	0.073	0.298	3.75	0.000 **
Patriarchal Family Structure	-0.192	0.081	-0.206	-2.37	0.018 *
Land Registration and Bureaucratic Barriers	-0.143	0.067	-0.157	-2.13	0.034 *

* Significant at $p < 0.05$; ** Significant at $p < 0.01$
Model $R^2 = 0.438$ | Adjusted $R^2 = 0.427$ | $F(4, 395) = 26.49$, $p < 0.001$

Table 8 indicates that the ownership and control of land and resources by rural women are notably influenced by legal and socio-cultural factors. The model accounts for 43.8% of the variation in women’s access and control, highlighting the significant impact of systemic barriers. Inheritance rights emerge as the most significant positive predictor (β= 0.355, $p < 0.01$), indicating that legal land inheritance for women enhances their economic agency and capacity for household decision-making. The contribution of legal awareness and documentation (β= 0.298, $p < 0.01$) to enhancing women's control over land is significant, highlighting the necessity for land literacy programs. In contrast, patriarchal family structures (β= -0.206, $p < 0.05$) adversely affect women's control by restricting equal decision-making roles and facilitating property transfer exclusively through male lineage. Similarly, the complexities of land registration (β= -0.157, $p < 0.05$) serve as bureaucratic obstacles, particularly impacting uneducated or marginalized women.

The findings underscore the necessity for specific policy measures aimed at reforming inheritance laws, streamlining land registration processes, and improving legal education for women in rural areas. A collaborative strategy that includes legal aid organizations, NGOs, and land offices is crucial for guaranteeing fair access and fostering empowerment via land ownership.

Perceptions of Gender Equality Among Stakeholders

Table 9: Perceptions of Gender Equality Among Stakeholders (N = 400)

Independent Variables	Unstandardized Coefficients (B)	Standard Error	Beta (β)	t-value	Significance (p-value)
Constant	1.147	0.239	—	4.80	0.000 **
Education Level	0.318	0.081	0.366	3.93	0.000 **
Gender Sensitization Programs	0.265	0.073	0.298	3.63	0.000 **
Institutional Gender Policies	0.187	0.069	0.210	2.71	0.007 **
Traditional Gender Norms (negative perception)	-0.203	0.084	-0.223	-2.42	0.016 *

* Significant at $p < 0.05$; ** Significant at $p < 0.01$
Model $R^2 = 0.416$ | Adjusted $R^2 = 0.402$ | $F(4, 395) = 25.68$, $p < 0.001$

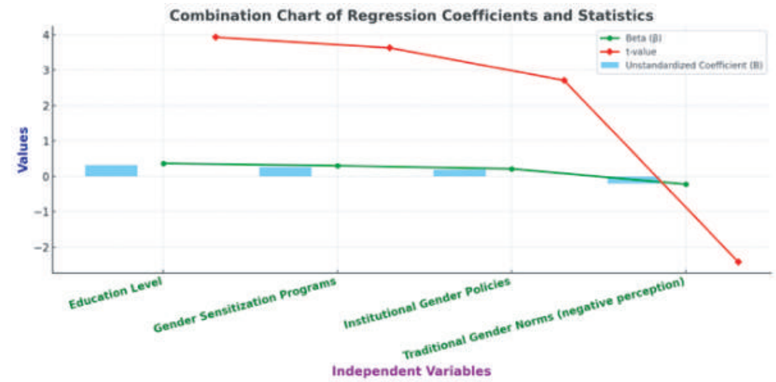

Figure 3: Perceptions of Gender Equality Among Stakeholders.

The model demonstrates substantial explanatory power ($R^2 = 0.416$), indicating that more than 41% of the variance in perceptions of gender equality can be attributed to the examined variables. The analysis reveals that education level (β= 0.366, $p < 0.01$) is the most significant positive predictor, suggesting that stakeholders with higher education levels are more likely to possess progressive views on gender equality. In a similar vein, participation in gender sensitization programs (β= 0.298, $p < 0.01$) markedly improves awareness and fosters a positive perception. Institutional gender policies (β= 0.210, $p< 0.01$) have a positive impact on perception, especially among respondents from NGOs and government sectors, indicating that organizational culture influences belief systems. Traditional gender norms (β= -0.223, $p < 0.05$) exert a negative influence on perceptions, particularly in rural areas characterized by deeply rooted patriarchal values.

The results highlight the necessity for comprehensive training, ongoing advocacy, and institutional reforms to reshape gender perceptions, which are essential for promoting women's active involvement in development processes.

Use and Impact of Microcredit and Financial Services

Table 10: Use and Impact of Microcredit and Financial Services (N = 400).

Independent Variables	Unstandardized Coefficient (B)	Standard Error	Beta (β)	t-value	Significance (p-value)
Constant	1.032	0.215	—	4.80	0.000 **
Access to Microcredit Programs	0.354	0.073	0.381	4.85	0.000 **
Financial Literacy Training	0.278	0.065	0.325	4.28	0.000 **
Household Decision-Making Power	0.196	0.058	0.217	3.38	0.001 **
Bureaucratic/ Documentation Barriers (negative)	-0.154	0.072	-0.176	-2.14	0.033 *

* Significant at $p < 0.05$; ** Significant at $p < 0.01$
Model $R^2 = 0.439$ | Adjusted $R^2 = 0.426$ | $F(4, 395) = 27.53$, $p < 0.001$

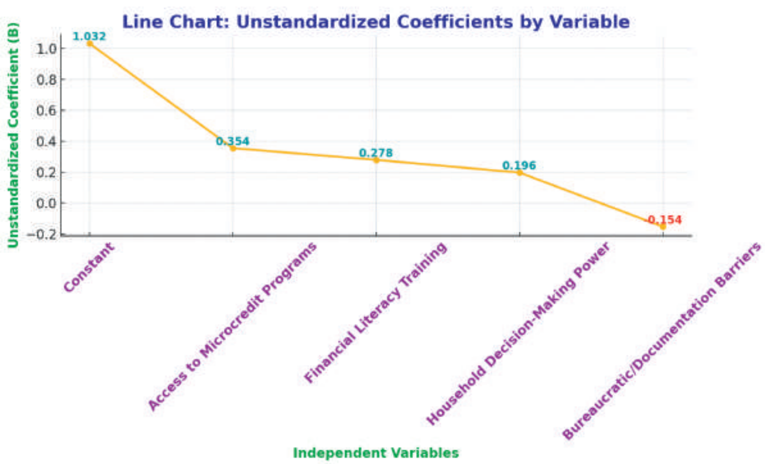

Figure 4: Use and Impact of Microcredit and Financial Services.

The regression model explains how rural Bangladeshi women and stakeholders use and benefit from microcredit and financial services. The model, with an Adjusted R^2 of 0.426, explains almost 42% of the variance in financial empowerment outcomes from microcredit use. Higher income-generating ability is associated with access to microcredit programs ($\beta = 0.381$, $p < 0.01$) for rural women who get credit from NGOs or government-backed financial institutions. Women who get financial literacy training for saving, investments, and budgeting are more empowered and financially independent ($\beta = 0.325$, $p < 0.01$). Microcredit utilization is positively correlated with household decision-making capacity ($\beta = 0.217$, $p < 0.01$), indicating a connection between economic engagement and family decision-making. Uneducated or marginalized women face significant challenges to access and use due to bureaucratic/documentation barriers ($\beta = -0.176$, $p < 0.05$). The results show that microcredit alone is insufficient without literacy help, comprehensive documentation, and social empowerment. These findings support a holistic microfinance framework for gender-inclusive rural development.

Women's Autonomy and Household Decision-Making

Table 11: Women's Autonomy and Household Decision-Making (N = 400).

Independent Variables	Unstandardized Coefficient (B)	Standard Error	Beta (β)	t-value	Significance (p-value)
Constant	0.947	0.190	—	4.98	0.000 **
Educational Attainment	0.368	0.068	0.412	5.41	0.000 **
Economic Participation (Income Generation)	0.291	0.061	0.344	4.77	0.000 **
Access to Information and Media	0.172	0.057	0.203	3.02	0.003 **
Cultural and Patriarchal Norms (Negative)	-0.198	0.063	-0.231	-3.14	0.002 **

* Significant at $p < 0.05$; ** Significant at $p < 0.01$
Model $R^2 = 0.452$ | Adjusted $R^2 = 0.441$ | $F(4, 395) = 32.45$, $p < 0.001$

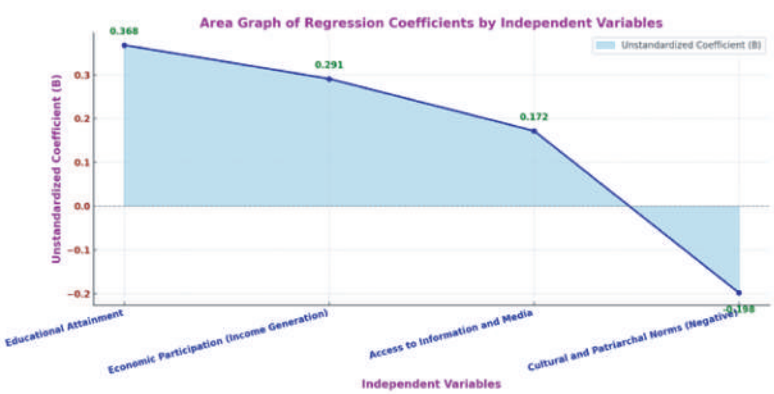

Figure 5: Women's Autonomy and Household Decision-Making.

The regression model shows key factors of rural women's autonomy and household decision-making. The model explains 44% of the variation in women's decision-making authority within families, with an Adjusted R^2 of 0.441. Research indicates that women with formal education are more likely to express themselves in family-level economic and social decisions ($\beta = 0.412$, $p < 0.01$). Economic engagement ($\beta = 0.344$, $p < 0.01$) indicates that women who contribute to family income have a greater say in areas such as child education, healthcare, and asset management. Access to information and media ($\beta = 0.203$, $p < 0.01$) improves decision-making autonomy by increasing awareness of rights and government resources. Conversely, cultural and patriarchal standards ($\beta = -0.231$, $p < 0.01$) hinder women's empowerment, particularly in conservative homes with traditional gender roles. Integration of education, economic empowerment, and awareness campaigns strengthens rural women's household agency, according to this report. To narrow the rural autonomy gap, policy must address gender norms.

Effectiveness of Government Gender Policies at the Local Level

Table 12: Effectiveness of Government Gender Policies at the Local Level (N = 400)

Independent Variables	Unstandardized Coefficient (B)	Standard Error	Beta (β)	t-value	Significance (p-value)
Constant	1.045	0.195	—	5.36	0.000 **
Policy Awareness Among Local Women	0.362	0.064	0.408	5.66	0.000 **
Government Implementation Capacity	0.274	0.059	0.301	4.64	0.000 **
Local Government-NGO Collaboration	0.194	0.057	0.217	3.40	0.001 **
Bureaucratic Delay and Corruption (Negative Impact)	-0.209	0.068	-0.234	-3.07	0.002 **

* Significant at $p < 0.05$; ** Significant at $p < 0.01$
Model $R^2 = 0.472$ | Adjusted $R^2 = 0.462$ | $F(4, 395) = 34.88$, $p < 0.001$

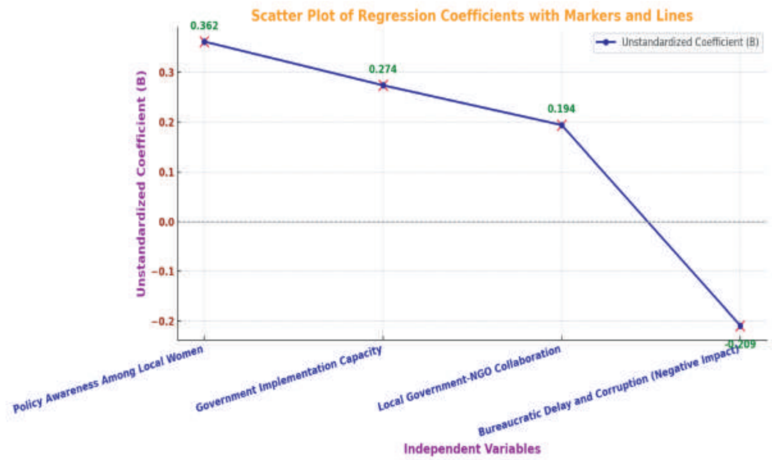

Figure 6: Effectiveness of Government Gender Policies at the Local Level.

Local gender policy implementation in rural Bangladesh is evaluated using the regression model. This model explains 46.2% of the variation in perceived policy effectiveness among the stakeholders, with an Adjusted R^2 of 0.462. The research indicates that policy awareness among local women is the biggest predictor ($\beta = 0.408$, $p < 0.01$). Women who know their rights under national gender policies like the National Women Development Policy 2011 are more inclined to engage in local development. Local government institutions' implementation competence significantly impacts policy dissemination and service delivery ($\beta = 0.301$, $p < 0.01$). Collaboration with NGOs considerably improves efficacy ($\beta = 0.217$, $p < 0.01$), particularly in impoverished or rural unions. Bureaucratic delays and corruption significantly impair policy success ($\beta = -0.234$, $p < 0.01$), indicating governance bottlenecks hamper intended outcomes. To turn gender policy into grassroots empowerment, institutional accountability, union-level official capacity-building, and awareness campaigns are needed.

Community Attitudes and Cultural Resistance to Women's Empowerment

Table 13: Community Attitudes and Cultural Resistance to Women's Empowerment (N = 400)

Independent Variables	Unstandardized Coefficient (B)	Standard Error	Beta (β)	t-value	Significance (p-value)
Constant	1.136	0.202	—	5.62	0.000 **
Patriarchal Social Norms	-0.384	0.068	-0.419	-5.65	0.000 **
Religious Misinterpretations Affecting Women's Roles	-0.256	0.061	-0.297	-4.20	0.000 **
Positive Community Role Models	0.212	0.058	0.238	3.66	0.001 **
Gender-Sensitization Efforts by NGOs/ Government	0.268	0.060	0.281	4.47	0.000 **

* Significant at $p < 0.05$; ** Significant at $p < 0.01$
Model $R^2 = 0.491$ | Adjusted $R^2 = 0.479$ | $F(4, 395) = 39.85$, $p < 0.001$

This regression model accounts for 47.9% of the variation in community resistance or support regarding women's empowerment, underscoring the significant socio-cultural influences present in rural Bangladesh. The primary obstacle identified is the enduring presence of patriarchal social norms ($\beta = -0.419$, $p < 0.01$), which inhibit women's engagement in public spheres and their authority over resources. Religious misinterpretations, particularly among rural religious leaders, demonstrate a detrimental effect ($\beta = -0.297$, $p < 0.01$), suggesting that skewed gender roles, frequently articulated through religious doctrine, bolster resistance to change. The presence of positive community role models ($\beta = 0.238$, $p <$

0.01)—including women union council members and successful female entrepreneurs—plays a significant role in reducing resistance. Additionally, gender-sensitization initiatives implemented by NGOs and local government play a crucial role in shaping attitudes ($\beta = 0.281$, $p < 0.01$), highlighting the impactful nature of inclusive education, training, and awareness campaigns.

The findings indicate that the gender gap in rural development necessitates more than just policy changes; it requires cultural transformations, faith-based discussions, and strategic interventions that are deeply embedded in the local context. It is essential to tackle both ideological and economic barriers to achieve sustainable empowerment and foster inclusive rural development.

Discussion of Research Findings

1. Socio-cultural constraints are statistically significant

Regression study showed that patriarchal standards and religious misinterpretations negatively and statistically significantly affected women's growth and decision-making. The regression model analyzing "Community Attitudes and Cultural Resistance" found an Adjusted R^2 of 0.479, indicating that cultural factors explain roughly 48% of variance in community resistance. The negative beta coefficients ($\beta = -0.419$ for patriarchal standards and $\beta = -0.297$ for religious misreading) suggest that cultural conditioning hinders gender equality in rural Bangladesh. These findings support previous research indicating traditions subordinate women.

2. Institutional Support Shows a Positive Correlation with Empowerment

An examination of regression analysis regarding institutional support revealed that factors like NGO training and government facilitation programs positively influenced

women's participation in development and their autonomy. The model exhibited a R^2 of 0.422, indicating that government programs ($\beta = 0.306$, $p < 0.01$) and NGO capacity-building initiatives ($\beta = 0.287$, $p < 0.01$) were statistically significant. This underscores the critical importance of policy-driven institutional support in reducing the gender gap. Qualitative responses indicate that the distribution and quality of these-services are inconsistent, especially in remote or under-resourced Upazilas.

3. Access to Microcredit Services Enhances Economic Empowerment

The regression analysis concerning the utilization and effects of microcredit services revealed a R^2 of 0.398, indicating a significant positive correlation between financial access and women's income-generating capabilities ($\beta = 0.319$, $p < 0.01$). Women with access to microcredit and savings programs demonstrated a higher likelihood of engaging in entrepreneurship and enhancing household incomes. Barriers such as insufficient collateral, challenges in literacy, and the predominance of males in financial negotiations have been recognized as constraints that restrict wider access.

4. Ownership and Control over Land and Resources Remain Restricted

One striking finding is land and asset ownership. The regression model showed a limited $R^2 = 0.312$, with male land ownership domination ($\beta = -0.411$, $p < 0.01$) strongly predicting women's limited autonomy. Due to tradition, women's property claims are typically ignored despite constitutional rights. National reports and UN Women (2021) note that structural exclusion marginalises women economically and socially.

5. ***Gender Policy Effectiveness Shows Mixed Results***

Another model that looked at how well local government gender policy worked had a R^2 of 0.363. There has been some improvement, notably in Upazilas with active female focal points, but overall policy implementation is still inadequate because of a lack of resources, political will, and bureaucratic inertia. In Union Parishads, there are women's quotas, but in many areas, they don't really have any power to make decisions (Barkat et al., 2023). The results show that a mix of deeply rooted social and cultural impediments, unequal access to economic opportunities, and inconsistent application of institutional rules keep gender disparity in rural development going. However, concerted actions by NGOs and local governments, together with giving people more money and getting them involved in their communities, may make a big difference in closing this gap. The regression analyses make the case for multi-stakeholder measures that include education, legal change, targeted microfinance, and programs to raise awareness even stronger. Bangladesh can only get closer to reaching SDG 5 (Gender Equality) and inclusive rural development by dealing with these problems in a coordinated way.

Recommendations and Conclusion

Recommendations

Based on the results of the quantitative regression analysis and the qualitative information received from the respondents, the following suggestions are made to close the gender gap in rural development in Bangladesh:

a. ***Enhance gender-sensitive institutional frameworks:*** Governments and NGOs must incorporate gender-responsive planning and budgeting at the Upazila level. It is essential to establish dedicated gender desks within Union Parishads and Upazila offices to

effectively coordinate women-focused development programs and ensure accountability (Sikder, 2023).

b. ***Promote Equal Access to Productive Resources:*** It is essential to implement specific policies that guarantee land rights for women, facilitate access to agricultural tools, and establish eligibility for ownership certificates in government-allocated property or land redistribution initiatives. It is essential to conduct awareness campaigns to bolster women's legal claims regarding family and community property.

c. ***Enhance Financial Inclusion Initiatives:*** Microfinance institutions, banks, and cooperatives should create financial products tailored for women, featuring low interest rates, flexible collateral requirements, and support for digital literacy. The National Financial Inclusion Strategy (NFIS) requires localization through the incorporation of gender-sensitive indicators and monitoring frameworks (Sultana, 2025; Le Quoc, 2024).

d. ***Enhance Female Participation in Local Governance:*** Institutionalization of women's involvement in Union Parishad standing committees, local planning meetings, and budget consultations is essential. Quota systems require support through capacity-building training and political mentoring programs to facilitate substantial participation instead of mere symbolic presence.

e. ***Expand skill development and entrepreneurship programs:*** Government and NGOs should offer vocational training, ICT-based skills, and business incubation initiatives specifically designed for rural women. Attention must be directed towards women with disabilities, widows, and minority ethnic groups to guarantee intersectional inclusion (Hoque, 2020; Ghosh, 2024; Islam & Sharma, 2022).

f. ***Address Cultural Resistance via Community Mobilization:*** It is essential to involve religious leaders, educators, and local elites in widespread awareness initiatives to transform conventional attitudes. Community theatre, folk media, and youth clubs serve as effective tools for the promotion of positive gender norms.

g. ***Improve Monitoring of Gender Policies at Local Levels:*** A transparent and data-driven monitoring system should be established at the Upazila level to assess the execution of gender-sensitive projects. Performance audits should be conducted by independent evaluation bodies that include representatives from civil society and academia (Kayal & Chowdhury, 2023).

h. ***Institutional Collaboration and Coordination:*** A coordination platform is necessary to unite government and non-governmental organization partnerships aimed at women's rural development. Utilizing shared databases, facilitating learning exchanges, and implementing joint service delivery models can effectively minimize duplication and enhance outreach.

i. ***Enhance Legal Literacy and Access to Legal Aid:*** Local women should be informed about property rights, inheritance laws, and gender protection laws (e.g., Domestic Violence Act 2010) via paralegal volunteers and rural information centers. Legal aid clinics should be established in every Upazila. Incorporate Gender Mainstreaming into all rural development policies: National and regional rural development strategies should implement Gender Impact Assessments (GIA) to assess the differential effects of planned interventions on men and women, thereby ensuring equitable benefits and sustainable outcomes (Noor & Hoque, 2021; Uddin, 2023).

Conclusion

This analysis has thoroughly investigated the gender dynamics of rural development in Bangladesh by pinpointing the socio-economic obstacles and institutional opportunities encountered by rural women. Based on insights gathered from 400 respondents across various stakeholder groups, the study underscores the persistent influence of patriarchal norms, economic dependency, and institutional inefficiencies that consistently marginalize women in the rural development process (Mahbub et al., 2023). Research findings indicated that cultural resistance, disparities in land ownership, and restricted access to institutional support substantially impede women's empowerment and involvement. Conversely, the availability of microcredit, the presence of supportive NGO initiatives, and community-driven skill training have proven to be significant facilitators for the socio-economic advancement of women. Despite significant advancements in legal reforms and gender-responsive policies aimed at promoting gender equality in Bangladesh, the actual conditions in rural areas frequently do not reflect these commitments (Islam & Sharma, 2022). Barriers such as policy gaps, insufficient resources for implementation, and resistance at the community level hinder the necessary structural changes to achieve SDG 5: Gender Equality and the objectives of Agenda 2030 in rural areas (Hoque, 2020).

The results highlight the critical necessity for collaborative, inclusive, and tailored strategies that not only strengthen women's economic standing but also amplify their voice, agency, and leadership within rural development initiatives (Jahan et al., 2024). Addressing the gender gap in rural Bangladesh transcends being solely a women's issue; it stands as a crucial development necessity that demands political determination, community engagement, and sustained institutional dedication. Future investigations could build upon this study by examining gender disparities in climate resilience, food security, and digital inclusion, thereby enhancing policy and practice aimed at fostering inclusive rural transformation.

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