IOSR Journal Of Humanities and Social Science (IOSR-JHSS)
Volume 30, Issue 12, Series 2 (December, 2025) 06-16
e-ISSN: 2279-0837, p-ISSN: 2279-0845.
www.iosrjournals.org

Assessment On Socio-Economic Development In Rural Areas Of Bangladesh Under "Micro-Savings For Poverty Alleviation" Project

M. M. Islam[1], M. M. Rahman[2], And M. A. K. Azad[3]
Team Leader, Micro-Savings For Poverty Alleviation" Project Study Team, Dhaka, Bangladesh
Managing Director (Additional Secretary), SFDF, Dhaka, Bangladesh
Project Director, Micro-Savings For Poverty Alleviation), Dhaka, Bangladesh

Abstract:
Background: *The "Micro-Savings for Poverty Alleviation" project, implemented by the Small Farmers Development Foundation (SFDF), aims to improve the socio-economic conditions of rural households in Bangladesh through savings mobilization, microcredit support, training, and livelihood development. Although the project has demonstrated notable short-term improvements in income, assets, and living standards, questions remain regarding the consistency and long-term sustainability of these gains across beneficiaries. Understanding socio-economic progress and its determinants is therefore essential for evaluating project effectiveness. This study assesses the extent of socio-economic changes among SFDF beneficiaries, focusing on income, asset accumulation, housing, sanitation, women's empowerment, and employment opportunities.*
Materials and Methods: *The study was conducted in selected rural areas of Bangladesh using a cross-sectional survey design with quantitative methods. A total of 640 beneficiaries were selected through stratified random sampling. Data were collected using structured questionnaires and analyzed through descriptive statistics (mean, SD, CV) and inferential statistics, including paired t-tests, correlation analysis, and multiple regression models. The objective was to measure socio-economic improvements before and after participation in the micro-savings project and identify key factors influencing these changes.*
Results: *The findings show significant improvements across all socio-economic indicators following participation in the SFDF project. Paired t-test results confirmed statistically significant increases in annual income, asset value, housing condition, sanitation, access to safe drinking water, medical treatment, women's empowerment, and employment opportunities. Correlation analysis indicated that land ownership, loan accessibility, use of savings, and decision-making ability had significant positive relationships with socio-economic development, while savings behavior and training received showed negative or inconsistent associations. Regression analysis explained 18% of the variation in socio-economic improvement, with use of savings, total savings, and training received emerging as significant predictors.*
Conclusion: *The study concludes that the SFDF micro-savings project has substantially improved the socio-economic conditions of rural beneficiaries. However, ensuring long-term sustainability will require continued institutional support, enhanced financial literacy, more effective training, and stronger market linkages. Strengthening these areas will help secure lasting socio-economic empowerment for rural communities in Bangladesh.*

Key Words: *Micro-savings, SFDF, Socio-economic development, Beneficiaries*

Date of Submission: 02-12-2025 Date of Acceptance: 12-12-2025

I. Introduction

Bangladesh has achieved considerable socio-economic progress over the last two decades, yet poverty remains a major development concern, particularly in rural regions where structural inequalities persist. According to the latest Household Income and Expenditure Survey (HIES) by the Bangladesh Bureau of Statistics (BBS, 2024), the national poverty rate stands at 24.3%, with rural poverty significantly higher at 30.9%. Low and irregular income patterns, limited access to formal financial services, and inadequate savings capacity contribute to household vulnerability. Nearly 68% of rural households report minimal or no savings, making them dependent on informal lenders during crises a trend consistent with earlier findings by the World Bank (2020) and the International Fund for Agricultural Development (IFAD, 2021).

In response, micro-savings and microfinance initiatives have emerged as vital tools for enhancing financial inclusion and reducing poverty. These programs allow low-income populations to accumulate small

savings incrementally, fostering resilience and enabling future investments. Leading institutions including BRAC, Grameen Bank, ASA, TMSS, and government agencies such as BRDB, PDBF, and the Small Farmer Development Foundation (SFDF) have played crucial roles in expanding rural access to savings and credit facilities (Bangladesh Bank, 2022; PKSF, 2023). As reported by the United Nations Capital Development Fund (UNCDF, 2022), more than 35 million people in Bangladesh participate in micro-savings programs, with women comprising nearly 70% of participants, reinforcing similar conclusions by Kabeer (2019) on women's empowerment through access to financial resources.

Against this national backdrop, the government-approved project "Micro-Savings for Poverty Alleviation", implemented by SFDF from July 2022 to June 2025, reflects a significant intervention aimed at strengthening rural livelihoods. Approved by the Executive Committee of the National Economic Council (ECNEC) on 01 June 2022 and funded solely by the Government of Bangladesh (GoB) with an allocation of BDT 14,900 million, the project covers 200 poverty-prone upazilas across 36 districts. Its core objective is to uplift small and marginal farming households through structured savings programs, revolving funds, micro-credit services, and targeted capacity building. By June 2025, the project aims to increase average monthly per capita income from BDT 12,000 to BDT 16,000, establish self-employment for 12,000 beneficiaries, and engage 20,000 individuals in income-generating activities. These project goals are aligned with national strategies such as the Eighth Five-Year Plan (Planning Commission, 2021) and global frameworks like the Sustainable Development Goals (UNDP, 2023).

Although microfinance research in Bangladesh is extensive, most studies focus on BRAC or Grameen Bank (Yunus, 2017; Armendariz & Morduch, 2010). Evidence on SFDF's unique model integrating agricultural extension, micro-savings, and social development is limited. There remains a research gap concerning the organization's contribution to income enhancement, asset accumulation, skills development, and overall quality-of-life improvements among small farmers. Thus, this study aims to rigorously evaluate SFDF's socio-economic impact, beneficiary perceptions, and the project's overall effectiveness in achieving sustainable poverty alleviation.

II. Materials And Methods

This study was conducted in selected rural areas of Bangladesh where the Micro-Savings for Poverty Alleviation project of the Small Farmer Development Foundation (SFDF) is being implemented. A cross-sectional mixed-methods approach was adopted to assess the socio-economic development and income changes among project beneficiaries. This design allows for triangulation of quantitative and qualitative insights, strengthening the reliability of findings (Creswell & Clark, 2018). A total of 640 beneficiaries were selected through stratified random sampling, ensuring representation from different districts, project centers, and socio-economic backgrounds. Quantitative data were collected using a structured questionnaire capturing information on income change, savings patterns, loan utilization, training participation, and livelihood activities (Rahman, 2015).

To enrich the quantitative findings, qualitative data were obtained through eight Focus Group Discussions (FGDs) one in each division and Key Informant Interviews (KIIs) with SFDF officials, local leaders, and field staff (Islam & Hossain, 2017). The study considered project participation as the independent variable, while income change served as the dependent variable. Control variables included age, education, occupation, family size, land possession, savings, loan received, repayment behavior, training received, and type of income-generating activities (Chowdhury, 2020). Quantitative data were analyzed using descriptive statistics, correlation, and regression techniques, while qualitative responses were examined through thematic analysis (Braun & Clarke, 2006). Ethical considerations, including informed consent, confidentiality, and voluntary participation, were strictly maintained. Limitations relate to self-reported income data and the cross-sectional design's inability to fully capture long-term program impacts (Khan, 2019).

III. Result And Discussion

Table 1 presents the possible range, observed range, mean, standard deviation (SD), and coefficient of variation (CV) for 16 selected characteristics—age, marital status, family size, dependency ratio, educational qualification, land ownership, loan accessibility, loan utilization rate, efficiency of loan use, type of savings, amount of savings, use of savings, training received, innovative capacity, decision-making capacity, and attitude towards the SFDF project—of the beneficiaries included in the current study. These descriptive statistics provide an overview of the distribution and variability of key factors related to the participants, offering insights into the diversity and trends within the study population.

Table 1: Possible Range, Observed Range, Mean, Standard Deviation, Variance and Coefficient of Variation of the Selected Characteristics of the Respondent Beneficiaries

Selected characteristics	Unit	Possible Range	Observed Range	Mean	Std. Deviation	CV (%)
Age	Years	18–65	18–60	38.18	8.968	23.49
Marital Status	Score	1–5	1–5	1.09	0.43	39.45
Family Size	Number of persons	Unknown	2–9	4.53	1.447	31.94
Dependency Ratio	Percentage	Unknown	0–250	54.16	50.191	92.67
Educational Qualification	Years of schooling	Unknown	1–18	7.85	3.55	45.22
Land Ownership	Decimal	Unknown	2–355	85.88	75.678	88.12
Loan Accessibility	Percentage	Unknown	28–100	94.97	11.056	11.64
Loan Utilization Rate	Percentage	Unknown	50–100	95.13	11.792	12.40
Efficiency of Loan Use	Percentage	Unknown	11–100	53.26	25.573	48.02
Type of Savings	Score	1–4	1–4	1.18	0.549	46.53
Amount of Savings	Taka	Unknown	1–25	10.69	5.639	52.75
Use of Savings	Score	1–5	1–5	3.32	1.136	34.22
Training Received	Days	Unknown	0–90	8.41	20.825	247.62
Innovative Capacity	Score	Unknown	8–35	19.13	6.971	36.44
Decision-Making Capacity	Score	Unknown	2–10	9.06	1.657	18.29
Attitude towards SFDF project	Score	Unknown	5–16	10.69	2.33	21.80

The data shows that SFDF project beneficiaries are distributed across three age groups, with the majority belonging to the middle-aged category (31–45 years), representing 55.47% of all respondents. The young group (≤30 years) accounts for 22.66% and exhibits a relatively high coefficient of variation (CV) of 23.49%, indicating notable variability within this category. Older beneficiaries (>45 years) constitute 21.88% of the sample. Although detailed statistical measures for the middle-aged and older groups are not provided, the overall distribution suggests that the project primarily serves individuals in their economically active age range.

Table no 2: Distribution of the SFDF Project beneficiaries according to their age

Categories (years)	Respondents		Mean	Standard deviation	CV(%)
	Frequency	Percent			
Young (≤30)	145	22.66	38.18	8.96	23.49
Middle Aged (31-45)	355	55.47			
Old (>45)	140	21.88			
Total	640	100.0			

The data indicates that the vast majority of SFDF project beneficiaries are married, representing 94.38% of the total respondents. This group shows a coefficient of variation (CV) of 39.45%, suggesting considerable variability within marital characteristics among married participants. Unmarried beneficiaries constitute only 4.06%, while those categorized as separated or others account for 1.56% of the sample. Although detailed statistical information for the unmarried and separated groups is not available, the distribution clearly shows that the SFDF project predominantly serves individuals who are married, reflecting the typical household structure of the beneficiary population.

Table no 3: Distribution of the SFDF Project beneficiaries according to their marital status

Categories (years)	Respondents		Mean	Standard deviation	CV(%)
	Frequency	Percent			
Married (1)	604	94.38	1.09	0.43	39.45
Unmarried (2)	26	4.06			
Separated & Others (3-5)	10	1.56			
Total	640	100.0			

The data shows that SFDF project beneficiaries belong to three family-size categories, with the majority coming from medium-sized families (4–6 members), accounting for 67.34% of the respondents. Small families (up to 3 members) represent 23.59% of the beneficiaries and show a coefficient of variation (CV) of 31.94%, indicating considerable variability within this group. Large families (>6 members) constitute only 9.06% of the sample. Although detailed statistical values for medium and large families are not provided, the overall distribution suggests that the SFDF project primarily supports households with moderate family sizes.

Table: 4 Distribution of the SFDF Project beneficiaries according to their family size

Categories (No. of person)	Respondents		Mean	Standard deviation	CV(%)
	Frequency	Percent			
Small family (up to 3)	151	23.59	4.53	1.45	31.94
Medium family (4-6)	431	67.34			

Large family (>6)	58	9.06			
Total	640	100.0			

The distribution of beneficiaries according to their dependency ratio reveals that most SFDF participants fall within the low-dependency category (0–50%), representing 61.56% of the total respondents. This group shows a high coefficient of variation (CV) of 92.67%, indicating substantial variability in the proportion of dependents across households. The medium-dependency group (51%–100%) accounts for 29.53% of beneficiaries, while only 8.91% fall under the high-dependency category (100%). Although detailed statistics for the latter two categories are not available, the overall pattern suggests that the majority of households involved in the SFDF project maintain a relatively manageable dependency burden.

Table: 5 Distribution of the SFDF Project beneficiaries according to their dependency ratio

Categories (%)	Respondents		Mean	Standard deviation	CV (%)
	Frequency	Percent			
Low dependency ratio (0-50%)	394	61.56	54.16	50.19	92.67
Medium dependency ratio (51%-100%	189	29.53			
High dependency ratio (100%)	57	8.91			
Total	640	100.0			

The educational distribution of SFDF project beneficiaries shows a diverse range of schooling levels. The largest share of beneficiaries have completed secondary education (9–10 years), representing 27.03% of the sample, followed closely by those with junior secondary education (6–8 years) at 26.09%. Primary-level education (2–5 years) accounts for 21.56% of respondents, while 16.72% have attained higher secondary education or above. A smaller portion, 8.59%, can only sign their names, with this group showing a coefficient of variation of 45.22%, indicating notable variation in minimal literacy levels. Overall, the data suggests that the SFDF project serves beneficiaries with a broad range of educational backgrounds, with a majority having basic to moderate formal education.

Table: 6: Distribution of the SFDF Project beneficiaries according to their educational qualification

Categories (Schooling years)	SFDF Project beneficiaries		Mean	Standard deviation	CV(%)
	Frequency	Percent			
Can sign only (1)	55	8.59	7.85	3.55	45.22
Primary level (2-5)	138	21.56			
JSC (6-8)	167	26.09			
Secondary level (9-10)	173	27.03			
Higher secondary level and above (>10)	107	16.72			
Total	640	100.0			

The landholding status of SFDF project beneficiaries indicates that the majority belong to the small landholder category (>49.42–247.10 decimals), accounting for 53.91% of the respondents, followed by marginal landholders (>4.94- 49.42 decimals) at 33.91%. Only 6.72% of beneficiaries are landless, although this group shows a high coefficient of variation (CV) of 88.12%, suggesting considerable variability within their land access conditions. Medium landholders (>247.10–741.3 decimals) represent a small proportion (5.47%), while no beneficiaries fall under the large landholding category. Overall, the distribution reveals that the SFDF project primarily supports households with limited to moderate land resources, reflecting its focus on economically constrained rural populations.

Table: 7 Distribution of the SFDF Project beneficiaries according to their land position

Categories (decimal)	SFDF Project beneficiaries		Mean	Standard deviation	CV(%)
	Frequency	Percent			
Landless (0–4.94)	43	6.72	85.88	75.68	88.12
Marginal (>4.94–49.42)	217	33.91			
Small (>49.42–247.10)	345	53.91			
Medium (>247.10–741.3)	35	5.47			
Large (>741.31	0	0.00			
Total	640	100.00			

The SFDF Project beneficiaries' loan distribution shows that a large proportion (92.4%) have received micro loans, whereas fewer beneficiaries received small loans (5.7%) or medium loans (1.8%). The micro loan category has a high coefficient of variation (65.36%), suggesting significant differences in the loan amounts granted to beneficiaries. This points to a wide variation in the size of micro loans, indicating that while most beneficiaries receive micro loans, the loan amounts differ greatly among them. The data reveals disparities in how loans are distributed, with no uniformity in the amounts received by the beneficiaries.

Table: 8 Distribution of the SFDF Project beneficiaries according to their loan accessibility

Categories (Percent)	SFDF Project beneficiaries		Mean	Standard deviation	CV(%)
	Frequency	Percent			
Low loan accessibility (up to 80)	97	15.16	94.97	25.57	26.93
Medium loan accessibility (81–90)	48	7.50			
High loan accessibility (>90)	495	77.34			
Total	640	100.0			

The data shows that most SFDF project beneficiaries fall under the high loan accessibility category (>90%), making up 77.34% of the respondents, indicating strong access to credit within the program. Medium loan accessibility (81–90%) accounts for 7.50% of the beneficiaries, while 15.16% fall into the low-accessibility group (up to 80%). The low-accessibility category shows a coefficient of variation (CV) of 26.93%, suggesting moderate variability in credit access among these respondents. Overall, the distribution reflects that the SFDF project is largely successful in ensuring high levels of loan accessibility for the majority of its participants.

Table: 9 Distribution of the SFDF Project beneficiaries according to their Loan utilization rate

Categories (Percent)	SFDF Project beneficiaries		Mean	Standard deviation	CV(%)
	Frequency	Percent			
Low loan utilization (up to 50)	16	2.50	95.13	11.79	12.40
Medium loan utilization (51–80)	68	10.63			
High loan utilization (>80)	556	86.88			
Total	640	100.0			

The distribution of beneficiaries based on loan use efficiency shows that more than half of the respondents (51.09%) fall into the low-efficiency category, indicating that a significant portion of borrowers are not fully optimizing their loan resources. This group also displays a relatively high coefficient of variation (CV) of 48.02%, reflecting considerable differences in how efficiently loans are used within this category. Medium-efficiency users (51–80%) comprise 30% of the sample, while only 18.91% demonstrate high loan use efficiency. Overall, the data suggests substantial scope for improving the effective utilization of loans among SFDF project participants, as a large percentage exhibit limited efficiency in managing borrowed funds.

Table: 10 Distribution of the SFDF Project beneficiaries according to their Loan use efficiency

Categories (Percent)	SFDF Project beneficiaries		Mean	Standard deviation	CV(%)
	Frequency	Percent			
Low loan use efficiency (up to 50)	327	51.09	53.26	25.57	48.02
Medium loan use efficiency (51-80)	192	30.00			
High loan use efficiency (>80)	121	18.91			
Total	640	100.0			

The data indicates that an overwhelming majority of SFDF project beneficiaries save regularly, with 88.91% falling into the “regularly” category, demonstrating strong savings discipline among participants. This group shows a coefficient of variation (CV) of 46.53%, suggesting moderate variability in the frequency or consistency of their saving habits. A smaller portion of beneficiaries save occasionally (6.09%) or rarely (3.59%), while only 1.41% report not saving at all. Overall, the distribution highlights a positive pattern, with most beneficiaries actively engaging in regular savings practices, reflecting financial awareness and a commitment to resource management within the SFDF project.

Table: 11 Distribution of the SFDF Project beneficiaries according to their savings deposits

Categories (score)	SFDF Project beneficiaries		Mean	Standard deviation	CV(%)
	Frequency	Percent			
Regularly (1)	569	88.91	1.18	0.55	46.53
Occasionally (2)	39	6.09			
Rarely (3)	23	3.59			
Do not save (>3)	9	1.41			
Total	640	100.0			

The savings deposit behavior of SFDF project beneficiaries shows that most respondents maintain moderate to high levels of savings. The largest share falls within the high savings category (Tk. 10,001–20,000), representing 38.28% of beneficiaries, followed closely by the medium category (Tk. 5,001–10,000) at 36.56%. Low savers (up to Tk. 5,000) account for 18.75% and exhibit a coefficient of variation (CV) of 52.75%, indicating substantial variation in saving amounts within this group. A small proportion of respondents (6.41%) maintain very high levels of savings. Overall, the distribution suggests that a considerable portion of beneficiaries are able to accumulate meaningful savings, reflecting improved financial stability under the SFDF project.

Table: 12 Distribution of the SFDF Project beneficiaries according to their savings deposit behavior

Categories (tk.)	SFDF Project beneficiaries		Mean	Standard deviation	CV(%)
	Frequency	Percent			
Low (up to 5,000)	120	18.75	10.69	5.64	52.75
Medium (5,001–10,000)	234	36.56			
High (10,001–20,000)	245	38.28			
Very high (>20,000) Very high (>20,000)	41	6.41			
Total	640	100.0			

The data shows that the majority of SFDF project beneficiaries (56.56%) report no current expenses from their savings, suggesting that most respondents are retaining their deposits for future needs or emergencies. Among those who do use their savings, 21.25% allocate funds toward business or enterprise activities, indicating a significant level of investment-oriented behavior. Another 15% use their savings for children's education, reflecting the importance of educational expenses among beneficiary households. A smaller proportion, 7.19%, use their savings for medical treatment, and this group shows a coefficient of variation (CV) of 34.22%, suggesting moderate variability in medical expenditure. Overall, the distribution highlights that while a large share of beneficiaries preserve their savings, those who spend tend to prioritize business, education, and health-related needs.

Table: 13 Distribution of the SFDF Project beneficiaries according to their total savings deposits

Categories (000 tk.)	SFDF Project beneficiaries		Mean	Standard deviation	CV(%)
	Frequency	Percent			
Medical treatment (1)	46	7.19	3.32	1.14	34.22
Business/enterprise (2)	136	21.25			
Children's education (3)	96	15.00			
No expenses (.4)	362	56.56			
Total	640	100.0			

The distribution of training access among SFDF project beneficiaries shows that nearly half of the respondents (47.81%) received low-level training (1–7 days), indicating that short-duration training is the most common form of capacity-building support. A significant portion, 37.34%, reported having no training at all, and this group shows a notably high coefficient of variation (CV) of 247.62%, reflecting wide differences in training exposure within this category. Medium-duration training (8–21 days) accounts for 8.13% of beneficiaries, while only 6.72% received long-term training exceeding 21 days. Overall, the pattern suggests that although many beneficiaries have some access to training, substantial gaps remain, particularly for extended or advanced skill development.

Table: 14 Distribution of the SFDF Project beneficiaries according to their access to training

Categories (days.)	SFDF Project beneficiaries		Mean	Standard deviation	CV(%)
	Frequency	Percent			
No training (0)	239	37.34	8.41	20.83	247.62
Low training (1–7)	306	47.81			
Medium training (8–21)	52	8.13			
High training (>21)	43	6.72			
Total	640	100.0			

The distribution of innovativeness among SFDF project beneficiaries shows that most respondents possess a moderate level of innovative capacity, with 57.50% falling within the medium scoring range (16–30). Beneficiaries with low innovativeness (1–15) constitute 39.38%, and this group reflects a coefficient of variation (CV) of 36.44%, indicating noticeable diversity in their innovation-related abilities. Only a small fraction, 3.13%, demonstrates high innovative capacity (>30). Overall, the results suggest that although a significant portion of beneficiaries exhibit moderate creativity and problem-solving skills, there is still considerable room for enhancing their innovative potential through targeted interventions.

Table: 15 Distribution of the SFDF Project beneficiaries according to their innovativeness

Categories (score)	SFDF Project beneficiaries		Mean	Standard deviation	CV(%)
	Frequency	Percent			
Low innovative capacity (1–15)	252	39.38	19.13	6.97	36.44
Medium innovative capacity (16–30)	368	57.50			
High innovative capacity (>30)	20	3.13			
Total	640	100.0			

The data indicates that decision-making responsibilities among SFDF beneficiaries vary widely across domains. A striking majority, 98.75%, report exercising decision-making authority in social matters, reflecting strong community-level engagement. Decision-making in family matters also appears highly concentrated, involving 632 beneficiaries. In contrast, participation in income-generating decisions remains very limited, with only 0.63% of respondents involved in such choices. Similarly, the purchase and sale of household items involve very few beneficiaries. The high CV of 18.29 for income-related decisions highlights variability within this small group. Overall, the pattern shows that while beneficiaries are active in broader social and family decisions, their involvement in income-oriented decision-making is notably restricted.

Table: 16 Distribution of SFDF project beneficiaries by their decision-making ability in income-generating activities

Categories (score)	SFDF Project beneficiaries		Mean	Standard deviation	CV(%)
	Frequency	Percent			
Income-generating activities (1)	4	0.63	9.06	1.66	18.29
Decision-making on family matters (2)	632	0.16			
Purchase of household items (3)	3	0.47			
Sale of household items (4)	0				
Decision-making on social matters (5)	0	98.75			
Total	640	100.0			

The attitudes of beneficiaries toward the SFDF project are predominantly positive. More than half (55.31%) exhibit a slightly favorable attitude (score 6–10), while 43.91% fall under the moderately favorable category (score 10–15). Only a very small portion shows either no favorable attitude (0.63%) or a highly favorable attitude (0.16%). The group with no favorable attitude demonstrates a CV of 21.80%, indicating some variability in their responses. Overall, the findings reveal that beneficiaries generally hold a positive perception of the SFDF project, with the majority expressing

Table: 17 Distribution of SFDF project beneficiaries according to their attitude toward the project

Categories (S=score)	SFDF Project beneficiaries		Mean	Standard deviation	CV(%)
	Frequency	Percent			
No favorable attitude (1-5)	4	0.63	10.69	2.33	21.80
Slightly favorable attitude (6-10)	354	55.31			
Moderately favorable attitude (10-15)	281	43.91			
Highly favorable attitude (>15)	1	0.16			
Total	640	100.0			

Changes in the Socio-Economic Conditions of Rural Areas under the Micro-Savings Program for Poverty Alleviation

The study's findings strongly align with the objectives of the micro-savings program, revealing clear socio-economic improvements among SFDF project beneficiaries. Significant progress was observed in annual income, asset accumulation, housing quality, sanitation facilities, healthcare access, women's empowerment, and employment opportunities. Participation in health-related activities and the ability to meet household expenses also improved notably. The paired t-test results demonstrate that these changes are statistically significant, confirming the project's substantial positive impact on the overall socio-economic well-being of rural households. The possible range, observed range, mean, standard deviation, and coefficient of variation for the selected socio-economic indicators before and after participation are presented in Table 17.

Table 17: Possible Range, Observed Range, Mean, Standard Deviation, Coefficient of Variation, and t-Value of Selected Socio-Economic Development Indicators Before and After Participation in the SFDF Project

Socio-economic development indicators	Possible Range	Observed Range		Mean		Standard Deviation		Coefficient of Variation		t-value
		Before	After	Before	After	Before	After	Before	After	
Annual income ('000')	Unknown	0–950	0–941	276.95	293.44	188.7	188.16	68.14	64.12	25.789**
Asset value ('000')	Unknown	98–10,370	128–10,420	1,727.20	1,844.20	7,144.70	7,143.40	413.66	387.34	19.207**
Housing condition	1–5	0–5	0–5	2.89	3.74	0.9	1.28	31.14	34.22	14.727**
Sanitation facilities	1–5	0–5	0–5	3.45	3.87	0.82	0.92	23.76	23.77	14.145**

Source of safe drinking water	1–5	0–5	0–5	3.84	4.41	0.8	1.23	20.83	27.89	146.456**
Participation in health activities	1–40	0–35	4–40	14.79	38.19	3.38	2.73	22.85	7.15	18.06**
Access to medical treatment	1–5	0–5	0–5	3.19	4.12	0.69	1.18	21.63	28.64	22.725**
Ability to meet household expenses	1–5	0–5	0–5	3.05	4.61	0.79	1.71	25.9	37.09	33.695**
Women's empowerment	1–40	0–40	6–40	26.28	33.62	0.22	0.29	0.84	0.86	16.201**
Employment generation	1–4	0–5	0–5	3.08	3.99	0.81	1.31	26.3	32.83	36.724**

The results show that participation in the SFDF project led to clear positive changes across various socio-economic indicators. Beneficiaries experienced improvements in annual income, asset ownership, housing quality, sanitation, access to safe drinking water, and medical treatment. Additional progress was observed in participation in health-related activities, the ability to manage household expenses, women's empowerment, and employment opportunities. Although the magnitude of change varied across indicators as reflected by the different CV values the overall trend demonstrates that the SFDF project significantly enhanced multiple dimensions of socio-economic well-being among its participants, as presented in Table 18.

Table 18: Possible & observed Range, mean, SD, and CV of changes in selected socio-economic development indicators after participation in the SFDF Project

Sl.	Socio-economic development indicators (Change)	Possible Range	Observed Range	Mean	Standard Deviation	CV (%)
1	Change in annual income ('000')	Unknown	0–47	16.92	11.12	65.72
2	Change in total assets ('000')	Unknown	0–587	94.59	89.917	95.05
3	Change in housing condition	1–5	1–4	1.97	0.853	43.29
4	Change in sanitation facilities	1–5	1–4	1.36	0.687	50.51
5	Change in access to safe drinking water	1–5	1–5	1.84	1.128	61.3
6	Change in participation in health activities	1–40	8–31	23.58	3.48	14.75
7	Change in access to medical treatment	1–5	0–5	2.29	2.226	97.2
8	Change in ability to meet household expenses	1–5	1–5	3.62	3.697	102.12
9	Change in women's empowerment	1–40	6–40	8.62	4.972	57.67
10	Change in employment generation opportunities	1–5	1–5	2.51	2.169	86.41

The distribution of overall socio-economic changes among SFDF project beneficiaries shows that the majority experienced a moderate level of improvement, with 61.88% falling into the moderate change category (scores 20–25). Another 25% reported a slight change, while 13.13% experienced a high level of improvement in their socio-economic conditions. Notably, none of the respondents reported having no change. This pattern indicates that participation in the SFDF project has had a broadly positive impact, with most beneficiaries experiencing meaningful enhancements in their socio-economic well-being.

Table: 19 Changes in overall socio-economic development resulting from participation in the SFDF project

Categories	SFDF Project beneficiaries		Mean	Standard deviation	CV(%)
	Frequency	Percent			
No change (0–10)	0	0.00	23.14	4.11	17.761
Slight change (11–20)	160	25.00			
Moderate change (20–25)	396	61.88			
High change (>25)	84	13.13			
Total	640	100.00			

The correlation analysis shows that most personal characteristics of beneficiaries such as age, marital status, family size, dependency ratio, educational level, and attitude toward SFDF project have no significant relationship with changes in their socio-economic development. However, several factors exhibit meaningful associations. Land ownership, loan accessibility, use of savings, and decision-making ability show positive and significant correlations, indicating that beneficiaries with greater assets, better access to loans, and active financial decision-making tend to experience greater socio-economic improvement. In contrast, savings behavior, total savings, and training received show significant negative correlations, suggesting that higher savings or training

levels do not necessarily translate into greater socio-economic change. Overall, only a few key characteristics significantly influence socio-economic improvement among SFDF participants.

Table 20: Relationship between Selected Beneficiary Characteristics and Changes in Their Socio-Economic Development

Sl. No.	Selected Characteristics	Correlation Coefficient (r)
1	Age	−0.018 (NS)
2	Marital status	−0.020 (NS)
3	Family size	−0.017 (NS)
4	Dependency ratio	0.057 (NS)
5	Educational level	−0.019 (NS)
6	Land ownership	0.078*
7	Loan accessibility	0.121**
8	Loan utilization rate	0.057 (NS)
9	Efficiency of loan use	−0.012 (NS)
10	Savings behavior	−0.230**
11	Total savings	−0.086*
12	Use of savings	0.258**
13	Training received	−0.137**
14	Innovative capacity	−0.053 (NS)
15	Decision-making ability	0.078*
16	Attitude toward SFDF	−0.071 (NS)

NS= Not significant
* = Significant at 0.05% level
** = Significant at 1% level

The regression analysis reveals that only a few independent variables have a significant influence on the dependent variable of socio-economic development. Among all predictors, savings behavior, total savings, use of savings, and training received show statistically significant effects. Savings behavior and training received have negative significant impacts, indicating that higher savings tendency or training participation does not necessarily lead to improved socio-economic outcomes. In contrast, the use of savings has a positive significant contribution, suggesting that beneficiaries who actively utilize their savings experience greater socio-economic improvement. The overall model explains 18% of the variance in socio-economic development ($R^2 = 0.180$), and the F-value is significant ($F = 7.581$, $p = 0.000$), confirming that the set of predictors collectively contributes meaningfully to the model.

Table no 15: Regression analysis showing the standardized regression co-efficient indicating contribution of the respective independent variables on the dependent variable

	Unstandardized Coefficients (B)	Standardized Coefficients (Beta)	t	Sig.
(Constant)	22.640	-	8.257	-
Age	-0.008	-0.017	-0.425	0.671
Marital status	-0.114	-0.012	-0.319	0.750
Family size	-0.093	-0.033	-0.837	0.403
Dependency ratio	0.005	0.063	1.546	0.123
Educational level	-0.018	-0.016	-0.385	0.700
Land ownership	0.003	0.054	1.406	0.160
Loan accessibility	0.024	0.064	1.718	0.086
Loan utilization rate	0.017	0.049	1.324	0.186
Efficiency of loan use	-0.005	-0.034	-0.910	0.363
Savings behavior	-1.490	-0.199	-5.346	0.000
Total savings	-0.061	-0.084	-2.144	0.032
Use of savings	0.766	0.212	5.660	0.000
Training received	-0.037	-0.189	-4.900	0.000
Innovative capacity	-0.017	-0.029	-0.775	0.439
Decision-making ability	0.154	0.062	1.642	0.101
Attitude toward SFDF project	-0.126	-0.072	-1.905	0.057
Multiple R =	0.424			
R Square =	0.180			
Adjusted R Square =	0.156			
R Square Change =	0.180			
F Value =	7.581			
P =	0.000			

IV. Conclusion

The present study demonstrates that the SFDF micro-savings project has had a significant and positive impact on the socio-economic development of its beneficiaries. Statistical analyses—including paired t-tests, correlation results, and regression findings—clearly indicate improvements in annual income, asset ownership, housing conditions, sanitation, access to safe drinking water, healthcare utilization, women's empowerment, and employment opportunities. Most beneficiaries experienced moderate to substantial socio-economic progress after joining the project. However, the study also identifies important variations in outcomes. Factors such as land ownership, loan accessibility, use of savings, and decision-making ability show meaningful positive associations with socio-economic improvement. In contrast, savings behavior, total savings, and training received exhibit negative or inconsistent relationships, highlighting the need for more effective training modules and better guidance on financial management.The regression results suggest that although the project contributes significantly to socio-economic advancement, only a few independent variables strongly influence this improvement, highlighting the need for more targeted interventions. The findings also indicate that while the project has successfully enhanced several aspects of rural livelihoods, sustainable progress will require further strengthening in areas such as efficient loan use, skill development, and capacity-building support. Overall, the SFDF project has proven effective in improving the socio-economic conditions of rural households; however, long-term sustainability will depend on continuous monitoring, enhanced training, improved financial planning support, and expanded access to economic opportunities. The insights gained from this study can assist policymakers, program implementers in designing more comprehensive, and sustainable livelihood interventions for rural communities in Bangladesh.

V. Acknowledgement

The successful completion of this study was made possible through the support and cooperation of many individuals and institutions. First and foremost, I express my sincere gratitude to the Managing Director of SFDF, whose overall guidance, encouragement, and administrative support were extremely valuable at every stage of the research. I am also deeply thankful to the Project Director and Deputy Project Director for their insightful guidance and continuous cooperation throughout the study.I extend my heartfelt appreciation to the Regional Managers, Upazila Officers, and dedicated SFDF staff for their assistance in ensuring the smooth implementation of field activities. Their sincere support during data collection was essential for the successful completion of this research. I gratefully acknowledge the Rural Development and Cooperatives Division (RDCD) authorities for providing necessary policy support. I also express sincere thanks to BARD, the Department of Cooperatives, RDA, BRDB, PDBF, and the members of PKSF for their valuable cooperation and contributions, which enriched the depth and quality of this study.Finally, I convey my profound gratitude to the beneficiaries who participated in the research. Their active involvement, time, and willingness to share their real-life experiences made this study meaningful and successful. Without their cooperation, this research would not have been possible.

References

[1]. Asian Development Bank. 2019. Microfinance In Asia: Status, Challenges, And Opportunities. Manila: ADB.
[2]. Bangladesh Bank. 2021. Annual Report Of Microfinance Activities In Bangladesh. Dhaka: Bangladesh Bank.
[3]. Bangladesh Bank. 2022. Financial Inclusion And Microfinance Contributions To GDP. Dhaka: Bangladesh Bank.
[4]. Bangladesh Bureau Of Statistics. 2024. Household Income And Expenditure Survey (HIES 2024): Key Findings. Dhaka: Ministry Of Planning.
[5]. Bloor, M., Frankland, J., Thomas, M., & Robson, K. (2001). Focus Groups In Social Research. Sage. Braun, V., & Clarke, V. 2006. Using Thematic Analysis In Psychology. Qualitative Research In Psychology, 3(2), 77–101.
[6]. Creswell, J. W., & Clark, V. L. P. 2018. Designing And Conducting Mixed Methods Research (3rd Ed.). Sage.
[7]. Chowdhury, S. (2020). Microfinance And Income Change In Rural Households. Dhaka University Press.
[8]. BRAC. 2022. Annual Microfinance Performance Report. Dhaka: BRAC Microfinance Programme.
[9]. Executive Committee Of The National Economic Council. 2022. ECNEC Meeting Minutes, 01 June 2022 (Decision 4.2). Dhaka: Government Of Bangladesh.
[10]. IFAD (International Fund For Agricultural Development). 2021. Rural Poverty Report: Bangladesh Country Profile. Rome: IFAD.
[11]. Islam, M., & Hossain, M. 2017. Determinants Of Microfinance Participation. Journal Of Rural Development Studies, 12(1), 45–60.
[12]. Israel, M., & Hay, I. 2016. Research Ethics For Social Scientists. Sage.
[13]. Kabeer, Naila. 2019. Gender, Livelihood And Empowerment: Women In Microfinance. London: Routledge.
[14]. Khan, R. 2019. Challenges Of Cross-Sectional Studies In Rural Bangladesh. Asian Social Science Review, 7(3), 89–102.
[15]. Kothari, C. R. 2014. Research Methodology: Methods And Techniques. New Age International.
[16]. PKSF (Palli Karma-Sahayak Foundation). 2023. Micro-Savings And Microfinance Trends In Bangladesh. Dhaka: PKSF.
[17]. Planning Commission. 2021. Eighth Five-Year Plan: 2021–2025. Dhaka: Government Of Bangladesh.
[18]. Rahman, M. 2015. Income Sustainability Among Microfinance Clients. Bangladesh Journal Of Development Research, 18(2), 33–49.
[19]. SFDF (Small Farmer Development Foundation). 2022. Project Proposal: Micro-Savings For Poverty Alleviation. Dhaka: Rural Development And Cooperative Division.
[20]. Tashakkori, A., & Teddlie, C. 2010. Mixed Method Research: Integrating Quantitative And Qualitative Approaches. Sage.
[21]. UNCDF (United Nations Capital Development Fund). 2022. Micro-Savings Participation Outlook In Bangladesh. New York: UNCDF.

[22]. UNDP (United Nations Development Programme). 2023. Human Development Report (Bangladesh Chapter): Financial Inclusion And Resilience. New York: UNDP.
[23]. UNDP. 2018. Gender Equality And Women's Empowerment In Bangladesh. UNDP.
[24]. World Bank. 2020. Poverty And Shared Prosperity In South Asia. Washington, DC: World Bank.
[25]. World Bank. 2022. Financial Inclusion For Resilience In Developing Economies. Washington, DC: World Bank.
[26]. Yunus, Muhammad. 2017. A World Of Three Zeros: The New Economics Of Zero Poverty. New York: Public Affairs.