

THE IMPACT OF MICROFINANCE SCHEME ON POVERTY STATUS OF RURAL FARMING HOUSEHOLDS IN SOUTH-WESTERN NIGERIA

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Abstract: Poverty is a harsh and undesired phenomenon to mankind especially to farming households in Nigeria; therefore its reduction is of utmost importance. Thus, introducing microfinance programs have been considered as one of the main instruments in poverty alleviation in recent development agenda. In Nigeria, rural banks and microfinance institutions were established in response to the need and the demand to make institutional credit and banking services available to small-scale farmers and rural entrepreneurs.

This study examined the impact of microfinance credit acquisition on poverty status of household farmers in south-western Nigeria. Specifically, the study profiled the socio economic characteristics and poverty status of both beneficiaries and non-beneficiaries of the microfinance; determined factors influencing participation in microfinance and assess the impact of microfinance on rural farming households' poverty level. A multistage sampling technique was used to select 241 respondents from four local government areas of Ogun and Osun States in the South-western part of Nigeria. Primary data collected was analysed using descriptive statistics, FGT model, Logit regression model and propensity score matching.

The result revealed that 60.4% and 56.6% of the beneficiaries and non-beneficiaries are poor with ₦15,381.98 and ₦11,961.38 as mean *per capita* income respectively. Logit regression result showed that sex and farm size significantly affect participation in the microfinance project. Also findings from propensity score matching (PSM) analysis indicated that microfinance scheme had a positive impact on the poverty of rural farming households of South-western Nigeria. At least a beneficiaries' *per capita* farming income can be increased by ₦19,293.41 under the microfinance lending scheme. There is a higher spill over effect of the microfinance scheme on the non-beneficiaries group by ₦30,733.54 increase in their *per capita* income from farming. This suggests that the scheme might improve the poverty status of the non-beneficiaries as well. The study recommends an increase in the microfinance project in the study area and other regions of the country.

Keywords: microfinance, poverty, logit model, propensity score matching, Nigeria

INTRODUCTION / PROBLEM STATEMENT

Agriculture activities in Nigeria are predominantly smallholder, subsistence and rural based as well as weather dependent. According to Daramola (2008), the agricultural sector contributes more than 40% to the Gross Domestic Product (GDP) in Nigeria and about

60% of all employments. It is noteworthy that the real sectors are increasingly becoming attractive to the commercial banks in order to create new outlets for their new found liquidity. The benefits in developing this sector include provision of employment, raw materials, export earnings, poverty reduction and significant contribution to economic growth. Majority of the rural famers are

impoverished due to the use of traditional extensive cultivation methods, limited use of modern technologies and purchased inputs which is a consequence of their poverty status. The wide-spread poverty, with all the attendant problems is the greatest challenge of our time. Poverty a multifaceted phenomenon according to Kurfi (2009) is subjective in nature and has both physical and psychological dimensions that predispose its sufferers to hunger, violence and crime, insecurity, discrimination, victimization, political repression etc.

Indeed, part of the experience in rural development in Nigeria has clearly shown that efforts at expanding the economic base of the rural areas especially the farming households almost always flounder because of scarcity of and restrictive access to loan-able funds (Ijere, 1992; Tanko, 2007). Therefore, the role of financial capital as a factor of production to induce economic growth and development and the need to channel credit to rural economies for economic empowerment of the rural poor cannot be over-emphasized. Societies the world over have different ways of addressing the financial needs of the poor. In Nigeria, the thrift or Esusu system is well known. It provides instruments for small savings, revolving loans and credit facilities. (Taiwo, 2012). The recent initiative of government is the microfinance policy and consequent licensing of more than 700 microfinance banks in Nigeria to serve the critical segment of the Nigerian society i.e. groups that are underserved, un-bankable, voiceless rural micro-entrepreneurs resident in rural and remote locations within Nigeria practicing agriculture and related activities/businesses.

The unwillingness or inability of the formal financial institutions to provide financial services to the urban and rural poor, coupled with the unsustainability of government sponsored development financial schemes contributed to the growth of private sector led microfinance in Nigeria (Anyanwu, 2004). Agbaeze and Onwuka (2014) opined that microfinance is all about providing financial services to the poor who are traditionally not served by the conventional financial institutions. There are three features that distinguish microfinance from other formal financial products. First is the smallness of loans, advances and or savings collected. Second, the absence of asset-based collateral;

and third is the simplicity of operations. In Nigeria, The formal financial sector in Nigeria provides services to about 35% of the economically active population while the remaining 65% are excluded from access to financial services (CBN, 2011). This 65% are often served by the informal financial sector, through Non-Governmental Organization (NGO)-microfinance institutions, money-lenders, friends, relatives, and credit unions. The gap filled by microfinance institution made her become part of the formal financial system, therefore can access capital market to fund their lending portfolios, allowing them to dramatically increase the number of poor people they can reach especially in the among the rural farming households. In view of this fact, it becomes necessary to assess of the impact of microfinance scheme on poverty reduction in Nigeria and the ripple effect of this scheme on the non-participants. The study also profiled the farmers based on their poverty status as well as participation in relation to their socio-economic features.

MATERIALS AND METHODS

The Study Area

This study was conducted in south-western Nigeria also known as the South-west geographical zone of Nigeria. The area lies between longitude 20 311 and 60 001 East and Latitude 60 211 and 80 371N (Faleyimu *et al.*, 2010) with a total land area of 77,818 km² and a population of 27,581,992 (NPC, 2006). The geographical location, democratization of western education and availability of resources enhanced in recent years have collectively enabled the south-western economy to rank as first of the economies in Nigeria. The climate of south-western Nigeria is tropical in nature and it is characterized by wet and dry seasons. The temperature ranges between 21oC and 34oC, while the annual rainfall ranges between 1500mm and 3000mm. South-western Nigeria is dominated by the Yoruba ethnic group. Economic activities undertaken include trading, handcraft, public service employment, and agriculture. The predominant crops in the region are cassava, maize, and vegetables such as okra, cucumber, tomatoes, pepper, and tree crops like mango, cashew, cocoa, kolanut, among others

Sampling technique

A multistage sampling technique was used to collect primary data through structured questionnaire. A simple random sampling technique was used to select two states from the six states located in the study area, that is, Ogun and Ondo States. Stratified sampling technique which forms the second stage was used to divide the Local Government Areas (LGAs) under the Agricultural Development Programme (ADP) zones for each state into urban and rural as indicated by the Ministry of Local Government and chieftaincy offices of both states. The third stage involves the use of simple random sampling technique to select a rural LGA from Ondo state and two from Ogun state using proportionate to size sampling. In all 14 and 6 villages were randomly selected from Ogun and Ondo state respectively. Finally, a total of 241 respondents were sampled which includes 96 participants in microfinance scheme and 145 non-participants.

DATA ANALYSIS

Foster Greer Thorbecke (FGT) Poverty Measures

FGT poverty index was employed to ascertain the poverty status of the respondents and this was then used to disaggregate them into poor and non-poor categories consequently, profiling them based on their socio economic characteristics. The measure relates to different dimensions of the incidence of poverty P_0 , P_1 , and P_2 were used for head count (Incidence), depth (gap) and severity of poverty respectively. The three measures were based on a single formula but each index puts different weights on the degree to which a household or individual falls below the poverty line. Poverty measurements as derived from Foster, Greer and Thorbecke (1984) is estimated as;

$$P\alpha = \frac{1}{N} \sum_{i=1}^q \left(\frac{Z_1 - Y_i}{Z_1} \right)^\alpha \quad \text{where:}$$

$P\alpha$ = the weighted poverty index for the i_{th} sub-group
 α = Foster-Greer-Thorbecke (FGT) index and takes on the values of 0, 1 and 2 for incidence, gap and severity of poverty measures respectively.

Z_1 = the poverty line for the i_{th} sub-group

q = the number of individuals below the poverty line

N = the total number of individuals in the reference population

Y_{ij} = the per capita income of household j in the sub-group i

$Z_1 - Y_{ij}$ = poverty gap of the i_{th} household

$\frac{Z_1 - Y_{ij}}{Z_1}$ = poverty gap ratio

The quantity in bracket is the proportionate shortfall of expenditure/income below the poverty line.

q = the proportion of the population that falls below the poverty line n

If $\alpha = 0$, then FGT measures the incidence of poverty

If $\alpha = 1$, then FGT measures the gap of poverty

If $\alpha = 2$, then FGT measures the severity of poverty

Logit Regression Analysis

Logistic regression analysis is a dichotomous regression analysis. Multiple logistic regression analysis applies when there is a single dichotomous outcome and more than one independent variable. The outcome in logistic regression analysis is often coded as 0 or 1, where 1 indicates that the outcome of interest is present, and 0 indicates that the outcome of interest is absent. If p is defined as the probability that the outcome is 1, the multiple logistic regression model can be written as follows:

$$\hat{p} = \frac{\exp(b_0 + b_1 X_1 + b_2 X_2 + \dots + b_p X_p)}{1 + \exp(b_0 + b_1 X_1 + b_2 X_2 + \dots + b_p X_p)} \quad (1)$$

\hat{p} is the expected probability that the outcome is present; X_1 through X_p are distinct independent variables; and b_0 through b_p are the regression coefficients. The multiple logistic regression model is sometimes written differently. In the following form, the outcome is the expected log of the odds that the outcome is present,

$$\ln \left(\frac{\hat{p}}{(1 - \hat{p})} \right) = b_0 + b_1 X_1 + b_2 X_2 + \dots + b_p X_p \quad (2)$$

In assessing the factors affecting participation in rural water schemes, the multiple regression equation used is specified as:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \dots + \beta_p X_p + \epsilon_i \quad (3)$$

Y = Participation in the scheme

0 - Participating in the microfinance scheme; 1 - Not participating in the microfinance scheme

$B_0 - B_p$ - regression coefficients

X_1 - age (continuous-years)

X_2 - sex (dummy)

X_3 - household size (continuous)

X_4 - years of education (continuous-years)

X_5 - farm size (hectares)

X_6 - farm experience (continuous-years)

X_7 - marital status (dummy)

X_8 - Secondary occupation (farming -1, 0, otherwise)

ϵ - error term

It is worthy of note that STATA 13 software was used for the analyses applied in this study.

Propensity Score Matching (PSM)

PSM was used to assess the impact of the microfinance schemes on rural farming households' poverty level. The propensity score is the probability of treatment assignment conditional on observed baseline characteristics. The propensity score allows one to design and analyze an observational (nonrandomized) study so that it mimics some of the particular characteristics of a randomized controlled trial. In particular, the propensity score is a balancing score: conditional on the propensity score, the distribution of observed baseline covariates will be similar between treated and untreated subjects. It can be described in four different propensity score methods: matching on the propensity score, stratification on the propensity score, inverse probability of treatment weighting using the propensity score, and covariate adjustment using the propensity score. Furthermore, it discusses differences between regression-based methods and propensity score-based methods for the analysis of observational data and finally describes different causal

average treatment effects and their relationship with propensity score analyses.

Propensity score matching entails forming matched sets of treated and untreated subjects who share a similar value of the propensity score (Rosenbaum and Rubin, 1983). Propensity score matching allows one to estimate the average treatment of the treated (Imbens, 2008). The most common implementation of propensity score matching is one-to-one or pair matching, in which pairs of treated and untreated subjects are formed, such that matched subjects have similar values of the propensity score. Although one-to-one matching appears to be the most common approach to propensity score matching, other approaches can be used.

Once a matched sample has been formed, the treatment effect can be estimated by directly comparing outcomes between treated and untreated subjects in the matched sample. If the outcome is continuous (e.g., a depression scale), the effect of treatment can be estimated as the difference between the mean outcome for treated subjects and the mean outcome for untreated subjects in the matched sample (Rosenbaum and Rubin, 1983). If the outcome is dichotomous, the effect of treatment can be estimated as the difference between the proportion of subjects experiencing the event in each of the two groups (treated vs. untreated) in the matched sample.

RESULTS AND DISCUSSION

Socio-economic features of the respondents

The profiled socioeconomic characteristics of the participants and non-participants in the microfinance scheme is presented in Table 1. The findings revealed an estimated mean age for participants and non-participants as 42 and 45 years respectively. And, the poverty incidence decreases with increase in age for the participants of the scheme while it increases with age increase with the non-participants except for age range below 30 years and above 60 years. The same pattern is observed for poverty gap and poverty severity for both categories. The male farmers have a lower poverty incidence, gap and severity when compared with their female counterparts for participating respondents. However, the reverse is the case for the non-participants as the female farmers are better-off in terms

of their poverty status. Also, the married (dual adult heading a household) participants of the microfinance scheme had an improved poverty status relative to the single headed households. This is contrary to non-participants where the single household fairs better than their married counterpart.

The average household size for the respondents is 5 persons for both categories. It is noteworthy that poverty incidence, gap and severity increases with increase in the household size for all the respondents. This is in-line with *a-priori* expectations. However, non-participants had fairer poverty status when compared with the participating households. The result further confirmed that human capital (education) as expected helps to improve poverty status. An average respondent irrespective of the category they belong have 12 years of formal education which according to the Nigerian policy on education fills the

secondary level of education. And as such increase in the years of education decreases the poverty incidence for the two categories. The pattern is same for poverty gap and severity. While the mean farming experience for participants is 10years, non-participant has 13years experience. Except for respondents with 16 -20 years of farming experience in both categories, poverty incidence, gap and severity increases with increase in years of farming. This may be due to use of traditional method of farming, crude implements and risk involved in adopting new farming innovation.

Majority of the rural household farmers cultivate small parcel of land and this is evidence in the mean value of the farm size, i.e. 3 hectares of land for both participants and non-participants. For both categories, poverty increases with increase in the area of farmland cultivated. Many factors could be attributed to this, putting

Table 1
Profile of socio-economic features of the respondents

<i>Socio-economic</i>	<i>Freq (%)</i>	<i>Participants</i>			<i>Freq (%)</i>	<i>Non-participants</i>		
Age (yrs)	((42±9.6))	P(0)	P(1)	P(2)	((45±10.7))	P(0)	P(1)	P(2)
<=30	12(12.5)	75.0	47.2	32.5	19(13.1)	52.7	26	14.6
31-40	29(30.2)	69.9	44.0	28.5	22(15.2)	22.3	13.21	7.6
41-50	40(41.7)	60.0	33.4	20.9	57(39.3)	45.6	20.7	11.6
51-60	12(12.5)	50.0	28.4	20.4	40(27.6)	77.5	40.5	22.7
>60	3(3.1)	66.7	27.1	17.7	7(4.8)	57.1	31.4	12.1
Sex								
Male	60(62.5)	60	35.4	23.3	83(57.2)	81.9	43.9	25.7
Female	36(37.5)	69.4	40.9	26.6	62(42.8)	14.5	3.9	0
Marital status								
Single	29(30.2)	68.9	40.4	25.9	30(20.8)	46.7	22.7	14.3
Married	116(69.8)	61.19	32.3	23.9	115(57.2)	54.8	27.8	15.7
Household size	((5±1.8))				((5±2.1))			
3-Jan	13(13.5)	23.1	11.8	7.4	15(10.3)	13.3	3.44	1.69
6-Apr	67(69.8)	65.7	36.2	22.4	83(57.2)	39.7	18.81	10.8
9-Jul	14(14.6)	78.7	45.9	29.7	44(30.3)	88.6	48.2	27.4
>9	2(2.1)	100.0	86.1	74.1	3(1.2)	100.0	50.1	37.19
Education(yrs)	((12±6.4))				((12±7.3))			
0	4(4.2)	100	68.5	48.4	13(8.97)	100	59.1	35.3
6-Jan	11(11.4)	54.55	25.5	16.3	20(13.8)	21.1	24.1	13.7
12-Jul	34(35.4)	85.3	54.7	36.3	39(26.9)	71.7	39.7	22.5
13-18	30(31.3)	66.7	39.2	24.9	46(31.7)	50	21.2	11.6
>18	17(17.7)	11.7	0.4	0.0	27(18.62)	14.8	4.0	3.35

contd. table 1

<i>Socio-economic</i>	<i>Freq (%)</i>	<i>Participants</i>			<i>Freq (%)</i>	<i>Non-participants</i>		
Experience(yrs)	((10±6.6))				((13±9.4))			
<5	19(19.8)	26.3	10.2	5.7	28(19.3)	25.0	8.6	4.1
10-May	45(46.9)	68.9	41.3	26.6	50(34.5)	41.4	19.3	11.4
15-Nov	20(20.8)	85.0	51.8	33.6	24(16.5)	50.0	25.4	14.5
16-20	4(4.2)	50.0	34.0	23.3	4(2.8)	36.4	16.6	9.4
>20	8(8.3)	75.0	41.2	34.7	39(26.9)	90.2	51.5	29.9
Farm size(ha)	((3±1.3))				((3±1.3))			
<2	28(29.2)	21.42	10.7	6.9	41(29.0)	23.8	8.9	5.8
2.1-3	19(19.8)	47.4	23.8	15.5	39(26.9)	30.7	17.7	10.7
3.1-4	25(26.0)	88.0	50.4	31.2	30(20.7)	83.3	45.7	25.5
>4	24(25.0)	100	66.2	45.1	34(23.4)	88.2	42.6	23.8
Farm group								
Yes	70(72.9)	50.0	27.2	18.1	79(54.5)	49.4	23.9	14.1
No	26(27.1)	65.6	41.35	26.9	66(45.5)	57.5	30.2	17.1
Farm enterprise								
Fisheries	17(17.7)	35.3	13.8	8.9	34(23.5)	17.6	5.5	3.7
Mixed farming	11(11.5)	27.3	17.3	12.0	21(14.5)	14.3	3.1	0.7
Crop	46(47.9)	91.3	57.8	38.3	62(42.7)	82.2	45.5	26.7
Poultry	22(22.9)	45.5	23.7	13.8	28(19.3)	60.7	29.0	15.7
2^o occupation								
Yes	24(25.0)	58.3	29.2	19.1	53(36.5)	45.3	23.1	12.7
No	72(75.5)	65.3	40.3	26.3	92(62.5)	57.6	28.9	16.9
Income (N)	((23,072±36699.9))				((17,942±21,577.8))			
<50,000	54(56.3)	100.0	64.2	42.7	66(45.5)	95.4	54.1	32.3
50,001-100000	10(10.4)	70.0	12.4	3.6	36(24.8)	36.1	8.7	3.1
100,001-150000	14(14.6)	0.0	0.0	0.0	27(18.6)	3.7	0.1	0.0
>150,000	18(18.7)	0.0	0.0	0.0	16(11.1)	0.0	0.0	0.0
Total	96(39.8)	Mean Per Capita Income = ₦15,381.98			145(60.2)	Mean Per Capita Income = ₦11,961.38		

Source: Field survey 2015

into consideration the issue of climate change where invested made may not expected result. Membership in farming organisation helps to better inform the farmers about new techniques, market outlets and current prices of produce. Therefore, it is an average to that enhances farmers' performance. This is established in the result as respondents involved in group activities are better-off in their poverty status that their counterpart.

Furthermore, the result revealed that majority of the respondents are involved in crop production; that is,

47.9% and 42.7% for participants and non-participant respectively and they have the highest poverty incidence, gap and severity for both categories considered. Closely following this are the poultry farmers. On the other hand, farmers involved in mixed farming have the lowest poverty incidence, gap and severity. This can be an indication that embracing mixed farming may help to reduce poverty status. Respondents who engage in a secondary occupation other than farming activities also have an improved poverty status for both categories. This may be as a result of additional income generated outside

farming. Lastly, the average monthly income generated for participants and non-participant of the microfinance scheme are ₦23,072 and ₦17,942 respectively. As the income increases poverty incidence, gap and severity decreases. In fact, it is noteworthy that farmers that earns as much as over ₦100,000 among the participants has no incidence of poverty; consequently, its gap and severity. While among the non-participants, farmers that earns above ₦150,000 also experience no incidence of poverty and its correlates.

Distribution of household monthly expenditure

The average distribution of the monthly expenditure for the households in the study area is presented in Table 2. The highest proportion of the monthly expenditure by household is on food and this accounted for 28 and 30 per cent of the total expenditure for participants and non-participants of the microfinance scheme respectively. This is followed by expenses on school activities for the respondents' children which accounted for about 19 and 17 percent for both categories. Rent allowance is minimal

relative to other basic needs of life; that is, 4.8 and 6.6 percent for participants and non-participants respectively. This may be due to the fact that majority of the respondents claim non-payment for housing because they live within their family house while others who reside in their personal houses did not indicate how much it could cost them if it was not their house. The least cost for a participating household in the study area is the use of kerosene as cooking fuel (2.6 percent). This is because majority of the household fetch firewood to cook and only need kerosene or other useful items to ignite the fire. On the other hand, apart from other social expenses, for non-participants the least expenditure made is on tax payment. It is worthy to note that expenses on utilities such as electricity and water are also minimal due to the claim many of the respondents source their water from nearby streams or wells that were close to their homes and most of the time hardly consume electricity. In all, an average of ₦65,421 was spent monthly by each participating households and ₦55,967 by non-participating farming households.

Table 2
Distribution of household monthly expenditure

<i>Monthly expenditure</i>	<i>Participants</i>		<i>Non-participants</i>	
	<i>Mean value (N)</i>	<i>Percentage</i>	<i>Mean value (N)</i>	<i>Percentage</i>
Food	18,297.81	28.0	16,777.24	30.00
Clothing	3,795.83	5.8	3,569.65	6.4
Rent allowance	3,160.43	4.8	3,684.48	6.6
Transport	2,648.95	4.0	3,082.28	5.5
Toiletries	3,777.60	5.8	2,863.45	5.1
Health	4,538.54	6.9	2,998.62	5.4
Education	12,211.46	18.7	9,611.72	17.2
Electricity	1,940.43	3.0	1,526.81	2.7
Fuel /Gas	3,585.43	5.5	3,465.52	6.2
Kerosene	1,672.93	2.6	1,566.89	2.8
Water	1,894.79	2.9	1,567.59	2.8
GSM maintenance	2,301.04	3.5	2,256.25	4
Remittances	1,297.93	2.0	1,403.45	2.5
Tax payment	2,493.40	3.8	967.93	1.7
Other expenses	1,805.21	2.8	625.52	1.1
Total	65,421.78	100	55,967.40	100
Mean <i>per capita</i> expenditure	10,995.57		8,702.631	

Factors Influencing Participation in Microfinance

Sex of the respondents has a negative relationship with their participation and it is significant at 1% level. This implies that there is higher likelihood that female participate more in the scheme than their male counterparts. Also, households with larger farm size have a higher probability of participating in the microfinance scheme than those with smaller farm size.

Impact of Microfinance on the Rural Farming Households' Poverty Level

Using STATA software, a sum of the entire propensity scores were calculated and matched with the output as

shown in the table below. The matching estimates in Tables 3a and 3b show that microfinance schemes have a positive impact on rural farming households' poverty level. The average treated treatment was ₦19,293.4093 which is the least income a farmer could receive under the microfinance scheme.

The results of the spill over effect of the water schemes on the non-beneficiary group in Table 3c shows a positive causal effect on the non-beneficiaries income and this means that the intervention of schemes might increase the non-beneficiaries output by at least ₦30,733.5366; this suggests that the schemes do not only positively impact on the beneficiaries but also indirectly benefits the non-beneficiaries (the spill over effect).

Assessing the impacts of water schemes on farmers' production

Table 3a
Estimation of ATT and ATU: Average treatment on treated and untreated respondents

Variable	Sample	Nearest neighbor		Difference	Std. Error	T-stat
		Treated	Controls			
Outcome	unmatched	87365.8438	77339.8497	10025.9941	9841.61865	1.02
	ATT	89545.8352	70252.4258	19293.4093	13933.3078	1.38
	ATU	77339.8497	108073.386	30733.5366	..	

Table 3b
Estimation of ATT: Impact of participation on the output of the beneficiaries

	Nearest neighbor
ATT	19293.4093
Treated	89545.8352
Control	70252.4258

Table 3c
Estimation of ATU: Spill over effect on the output of non-beneficiaries

	Nearest neighbor
ATU	30733.5366
Treated	77339.8497
Control	108073.386

CONCLUSION AND RECOMMENDATIONS

In conclusion, more than 50% of the beneficiaries and the non-beneficiaries of the microfinance scheme are poor and sex of the respondents as well as their farm size are major determinants of participation in the scheme. Also, microfinance scheme had a positive impact on the poverty of rural farming households of South-western Nigeria. At least a beneficiaries' *per capita* farming income can be increased by ₦19,293.41 under the microfinance lending

scheme. There is a higher spill over effect of the microfinance scheme on the non-beneficiaries group by ₦30,733.54 increase in their *per capita* farming income which means the scheme might improve the poverty status of the non-beneficiaries as well. Since the microfinance schemes showed a great impact on the income of the beneficiaries and the non-beneficiaries, using these schemes might help to alleviate poverty as the farmers can get more income from their agricultural practices. The study therefore recommends an increase in the microfinance project in other regions of the country.

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