Impact of "*Irkoy Gomni"* Micro-Credit on Poverty Alleviation among Cattle Fatteners in Kollo LGA of Tillabery Region Niger Republic

M., A. Maikasuwa
Department of Agricultual Economics
Usmanu Danfodiyo University
Sokoto, Nigeria

A. L. Ala
Department of Agricultual Economics
Usmanu Danfodiyo University
Sokoto, Nigeria

Mamoudou Daouda
Ministry of Animal Resources
Niamey, Niger Republic

Abstract

This study was conducted in Kollo Local Government Area of Tillabery region Niger Republic, it examined the impact of "Irkoy Gomni" micro credit on poverty alleviation among rural cattle fatteners. It focused among other things on poverty status, access to basic services, assets acquisition of beneficiary of the scheme and a set of non beneficiaries. A total of 100 beneficiaries and 100 non beneficiaries were selected using purposive and random sampling techniques. Data collected were analyzed using descriptive statistics, t-test and Foster Greer and Thorbecke weighed poverty index. Findings showed that poverty was still high among respondents (69.5%). Beneficiaries had higher standards of living as compared to non beneficiaries. It was also observed that the incidence of poverty, poverty intensity and severity were low among the beneficiaries (64%,25%,and 13%) respectively as compared to the non beneficiaries (75%,33%and 18%) respectively. Value of total assets acquisition was significantly higher for beneficiaries than non beneficiaries ($p<0.01$) It may thus be concluded that "Irkoy Gomni" micro-credit scheme has increased wealth and reduced the incidence of the poverty among beneficiaries. It is therefore recommended that the "Irkoy Gomni scheme should be expanded so that more cattle fatteners could benefit from the scheme.

Keywords: Micro-credit, Assets acquisition, Poverty alleviation, cattle fatteners.

Introduction

According to the *Strategie de Development Rural* (2003), people living in poverty are innately capable of working their way out of poverty with dignity, and demonstrate creative potentials to improve their situation in an enabling environment with the right opportunity such as access to finance. Niger Republic authorities have utilized fattening cattle in many parts of the country to ensure availability of food and income to the rural poor farmers. Cow fattening simply refers to the preparation of the cattle for marketing (Jean, 1993) The quality of the meat and the economic indices of the fattening of the livestock depend on the species ,breeds, sex, age, health, and fatness of the animal as well as on type and intensiveness of feeding and maintenance conditions. Most importantly, it helps to meet the urgent demand for high protein foods in the diet of the people. Consumer demand for beef is rising due to its proximity to Niamey, the country's capital. Cattle fattening enterprises provide employment to a large number of Nigeriens as many people are engaged in as producers , marketers and transporters. Others are into the business as processors of beef products, feed millers, veterinary services providers, and, in agricultural machineries fabrication. Cattle fattening mostly conducted through micro-credit activities, could form an appropriate tool for poverty alleviation and improvement in food security among the people.(Uza *et al.*,1999).

The "*Irkoy Gomni*" micro-credit scheme was designed to help the underprivileged and marginalized poor to have access to credit to develop and finance productive income-generating activities including farming. Increased private investment in agricultural sector can be pinpointed as the primary factors for the declining trend in the poverty. (Nasim and Khan, 2009)

3.0 Research Methodology

The study was conducted in Kollo Local Government Area (LGA) of Tillabery state in Niger Republic. Kollo LGA is situated in the sahel vegetational zone and lies between Latitudes 12^0 30′ and13^0 53′ North and Longitudes $1^0$30′ and$2^0$55′ East. It covers a land area of approximately 9,408 square kilometers and has a population of about 418,912 people Purposive selection of all beneficiaries with at least five borrowing cycle was made from a list of beneficiaries provided by the bank out of which, 100 farmers were randomly selected for the study. One hundred non beneficiary cattle fatteners who were immediate neighbours of the sampled beneficiaries were also randomly selected to make a total sample size of 200 cattle fatteners. Data collected were analyzed using descriptive statistics, t-test and Foster Greer and Thorbecke weighed poverty index

Models

The Foster, Greer and Thorbecke (FGT) (1984) weighed poverty index was used for the quantitative poverty assessment .The FGT measure for each group is given by:

$$P\alpha = n^{-1} \sum_{i=1}^{q} \left(\frac{z-yi}{z}\right)^{\alpha}$$

where
n = total number of household
z = poverty line
yi =Individual expenditure of ith household/year
q = number of household with income or expenditure below the poverty line
α = the degree of poverty aversion
α = 0 gives the incidence of the poverty (head count index), the formula above will then become $P\alpha = q/n$
α = 1 gives the poverty depth which is defined as the difference between the poverty line and the mean expenditure of the poor as a ratio of the poverty line.
α = 2 give the severity of the poverty (income inequality)

Results and Discussion

Access to basic services

Access to public services, such as water, electricity, sanitation, and telephone, may be important factors in reducing vulnerability and promoting consumption growth (Mushtaq, 2008). If a person has clean drinking water he will be safe from various diseases, be healthy and can work better. If his/her accommodation is better and well equipped he/she will be more secured. In a wide country like Niger republic where transportation facilities were very limited the telephone can in certain measure be substituted to transport to reduce cost of transactions for the population. As highlighted in the figure1, beneficiary households had more access to electricity, potable water, own more television while comparison household constructed more latrine in their houses and managed more telephone consequently more beneficiaries had better living environment than non beneficiaries. This finding conform with Mushtaq (2008) which revealed that it has been found that micro-credit beneficiaries had improvement to their economic status after using the micro-credit more than those who were not participants.

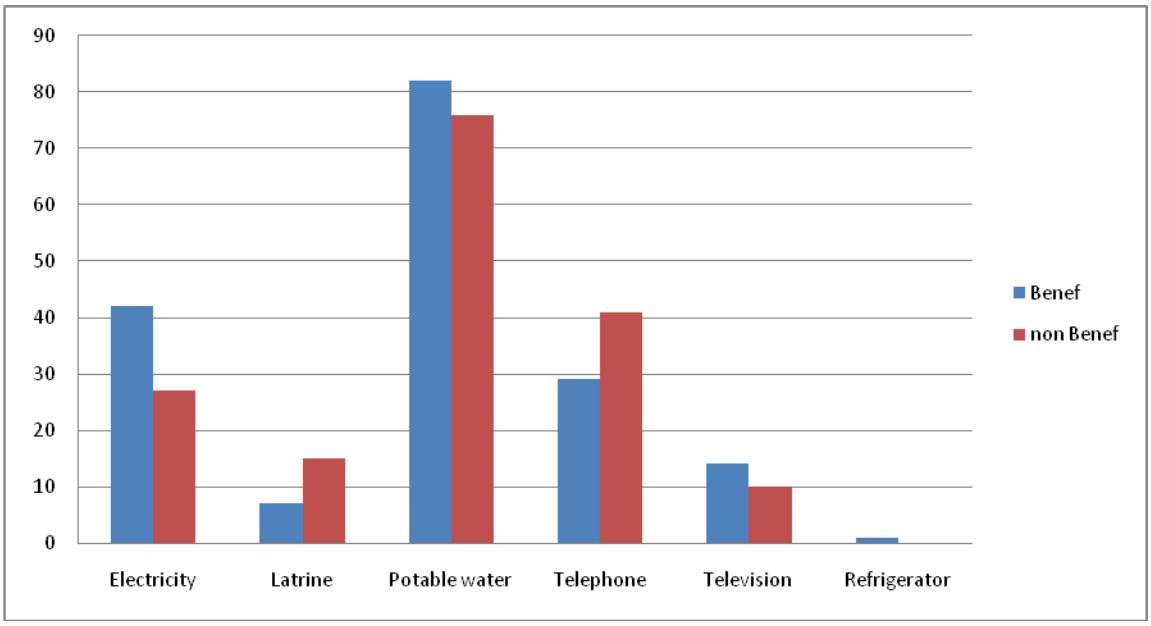

Figure 1; Access to basic services
Field survey 2010.

Possession of assets

Assets considered in the research include capital assets such as animals, carts, motor and bicycles. They are indicators of wealth gain by farmers. According to Miller (1977) poverty can be conceived in terms of individual or family insufficiency of assets and income. Assets are perceived as building block of human security. Development requires the creation of assets, the generation of income, and the possibility for people to step beyond the cycle of poverty and indebtedness towards greater economic self-reliance

Table7: Value of total assets for beneficiaries and non beneficiaries(N=100)

Value of Total Assets	Number **(N)**	Mean Fcfa	Mean diff	SE	T value
Beneficiaries	100	353240.00	105345	33512.45	3.14***
Non beneficiaries	100	247895.00			

Field survey2010
***: significant at 1% level
Values of assets were estimated in Fcfa NB: 1Fcfa,≡ ₦ 0.34(CBN,2010)

Table 7 showed that average total value of the beneficiaries' assets is (353,240 Fcfa, ₦120101.6) while for the non beneficiaries it is (247,895 Fcfa,≡ ₦84284.3) given a difference in favour of the beneficiaries of (105,345 Fcfa.,≡ N35817.3) The t-test shows a t- value of 3.14 which is significant at 1%. This means that assets owned by beneficiaries were significantly larger than those owned by the non beneficiaries. Implying that beneficiaries through their successive operation has accumulated greater wealth than non beneficiaries. This result is in agreement with Nwagbo *et al.* (1989) who observed that it is most likely credit use that made it possible for borrowers to enjoy higher welfare.

Poverty profile

For the poverty profile measurement the consumption based measure was estimated using the adjusted poverty line reported in the SDR (2003), since a survey was conducted to determine it. The estimation of the poverty line was based on the loss in purchasing power due to inflation.

The adjusted national poverty line is now (110,348 Fcfa,≡ ₦37,518.32) and (70,676.55 Fcfa, ≡₦24,030.027) for the poverty line and the extreme poverty line (INS,2009). This was used to classify our respondents into core poor, moderately poor and non-poor.

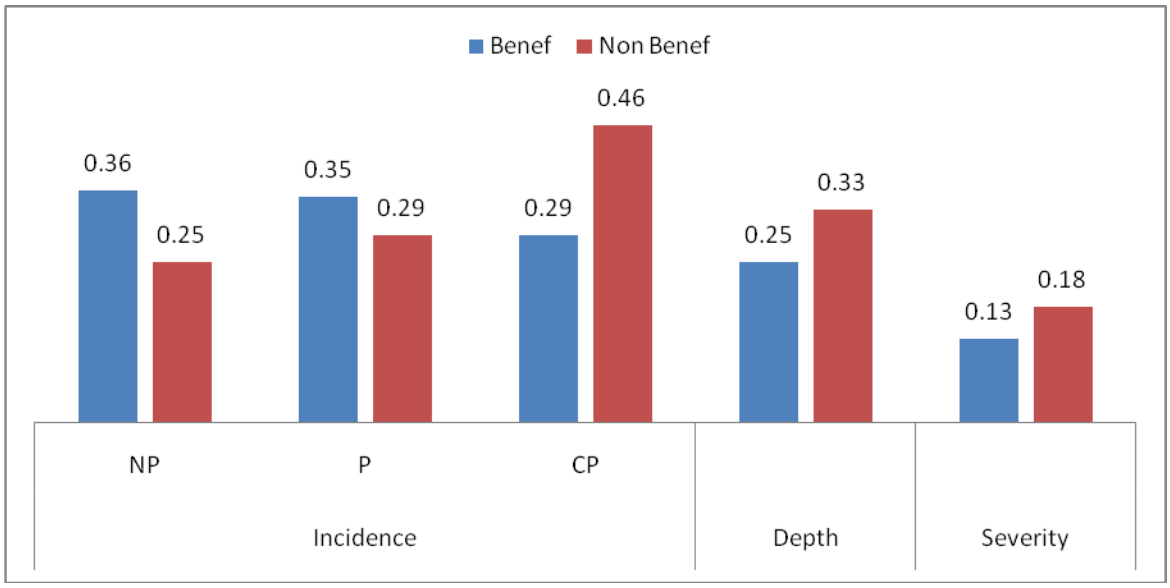

Figure 2: Poverty Profile of beneficiaries and non beneficiaries

Field survey2010
NP: non poor
P: poor
CP: core poor
Benef: beneficiaries
Non Benef: non Beneficiaries

Poverty Incidence

It gives information about the extent of poverty, and it is measured by the head count ratio. This is the share of the population which is poor. The proportion of the population for whom consumption or income is less than the poverty line .As highlighted by figure 2, 36% of the beneficiaries escape from poverty while 35% are poor and 29% core poor. From the non beneficiaries side 25% escape from poverty, 29% are still poor and 46% are core poor. The poverty incidence is still high among the two groups, but it is higher among the non beneficiaries this findings conform with Beidou (2007) that the incidence of the poverty in Niger for rural areas is 65.7%, and INS(2009) which indicated that the incidences of the poverty for Tillabery region was 71,7% but it disagree with the 2009 "*Irkoy Gomni*" bank annual report which stated that majority of their client escape from poverty.

Poverty depth

Also called poverty gap, which is often considered as representing the intensity of the poverty. It is the mean distance separating the population from the poverty line, with the non-poor being given a distance of zero. The poverty gap is a measure of the poverty deficit of the entire population. Figure 2 shows a poverty gap of 0.25 and 0.33 for beneficiaries and non beneficiaries respectively .This implies that both beneficiaries and non beneficiaries need additional support which will increase their consumption by 25% and 33% of the poverty line respectively to be safe from poverty. These findings conform with INS(2009) that the intensity of the poverty was up to25.9% in rural areas.

Square poverty gap

Square poverty gap is often described as a measure of the severity of poverty. While the poverty gap takes into account the distance separating the poor from the poverty line, the squared poverty gap takes the square of that distance into account. When using the squared poverty gap, the poverty gap is weighted by itself, so as to give more weight to the very poor. Said differently, the squared poverty gap takes into account the inequality among the poor. It is 0.13 and 0.18 for beneficiaries and non beneficiaries respectively.

Their income inequality is low for both beneficiaries and non beneficiaries' .This implies that resources among the community are almost equally distributed. Our findings are steel in accordance with INS (2009) that the severity of the poverty was 13.3% and 13.9% respectively for rural areas and Tillabery region.

Conclusion

The research has highlighted the role played by *Irkoy Gomni* credit in alleviating poverty among borrowers. It revealed that participation in the programme increased the earning capacity of the farmers and this could be observed through the wealth gained by beneficiaries over the non beneficiaries. We could conclude that cattle fattening, as an enterprise by the small holder farmer, even with as little financial input as was observed in this study was appropriate in reducing poverty. We could thus recommend a greater coverage of the area by the scheme.

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