IMPACT OF PROMOTING SUSTAINABLE AGRICULTURE PROJECT ON LIVELIHOOD SOURCES IN SOUTHERN BORNO STATE, NIGERIA (PROSAB): A QUANTITATIVE AND QUALITATIVE ANALYSIS

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ABSTRACT

This study on impact assessment of Promoting Sustainable Agriculture Project (PROSAB) on livelihood sources in Southern Borno State, Nigeria: A quantitative and Qualitative Analysis was to examine the impact created by the project using a quantitative and qualitative procedure. Data for the study were collected in three of the four LGAs using a multistage sampling technique. Primary data used for the study were generated from farmers through the use of a well structured questionnaire. Analytical tools used include the Double Difference method, the Fisher Index, Focused Group Discussion and descriptive statistical analysis. The Double Difference Estimator (DDE) gave a positive mean income for maize, soybean, cowpea, sheep, goats, cars/pickups and houses renovated/built suggesting a positive impact while it also gave a negative mean income for cattle and land suggesting no negative impact. The composite price index (CPI) was 124,117 and 137 for crop, livestock and household items respectively. The mean income of maize was statistically significant at 5% probability level while the mean income for soybean, cowpea and houses built/renovated were found to be statistically significant at 1% probability level. The qualitative analysis showed that 30%, 45% and 10% of men, women and youth respectively noted that the project made a positive impact on access and use of agricultural credit. On crop management techniques, 75%, 86% and 67% of men, women and youth indicated that the project made an impact. On the results for farm income; 89%, 92% and 60% of men, women, and youth respectively were of the view that the project made a reasonable positive impact. Only 25% of men, 47% of women and 38% of the youths were of the view that the project made a positive impact on agro-processing in the project area. The results call for policies aimed at the liberalization of the land tenure system to make more land available to women. The livestock subsector should receive greater attention than it did during the implementation of the PROSAB project. Access to and use of agricultural credit should be pursued in order to improve agricultural production in the area.

Keywords: Agriculture project, sustainable, livelihood sources

INTRODUCTION

Agriculture is the dominant occupation of rural Nigerians. It constitutes a significant sector of Nigeria's economy that has contributed immensely to its economic development. It plays an important role in the economic development of Nigeria. It provides food for the ever growing population, employment for over 65% of the population, raw materials and foreign exchange earnings for the development of the industrial sector and generation of household incomes for farmers (Kwaghe, 2006; Amaza, 2000).

The drastic decline in agricultural production became worrisome, as this led to the worsening of economic fortunes in terms of declining growth, increase unemployment, galloping inflation etc that characterized the Nigerian economy (Kwaghe, 2006).

The Federal Government of Nigeria prepared a new National Rural Development Strategy in 2001. This strategy aimed at improving livelihood and food security through a process of community based agriculture and rural development programmes. It was within this framework that the Promoting Sustainable Agriculture in Southern Borno State (PROSAB) was established. Since the goal of the project was to improve rural livelihoods in the project area, with specific objectives which included improving food security, reduction of environmental degradation and improvement in sustainable food production, it is desirable to estimate the impact of the project both quantitatively and qualitatively.

METHODOLOGY

Study Area

The study area is the project area in southern Borno State comprising of Damboa Local Government Area (LGA), Biu Local Government Area (LGA), Hawul Local Government Area (LGA) and Kwaya Kusar Local Government Area (LGA). The population of the study area is projected to be about 2.21 million from the 1.92 million population in the 2006 census figure (NPC, 2006).

The project area covers 39 communities located in three agro ecological zones located between latitude 10^0 and 12^0 north of the equator and longitude 11^030^0 and 14^0east. Numerous ethnic groups like Bura, Marghi, Higi, Gwoza, Terawa etc and cultures characterize the area, with approximately 80% of the population being small-scale farmers. Agriculture and trading constitute the major economic activities of the area (BOSADP, 1998 in Amaza *et al*; 2004).

Sampling Procedure

Three of the four Local Government Areas (LGAs) under the project area were covered for the purpose of data collection. The three LGAs studied were selected at random to include Biu, Hawul and Kwaya Kusar LGAs. The sampling frame was the 39 communities in which the Project was implemented and which were spread across four LGAs in the Project area. Two communities from the list of communities in the LGA were selected at random in each of the three LGAs. The selection was carried out randomly using a table of random numbers. In each of the selected communities, a random selection of 20 households was carried out from the list of households in each community. That is, a total of 180 farming households from the project area were studied.

Non-project participants were also selected for this study. Of the four adjoining LGAs, two were selected at random for the study. That is, the non-project participants were drawn from the two adjoining LGAs of Shani and Bayo. These non-project LGAs served as my counterfactuals.

The selection of non-project participants was done using similar procedures as discussed above. Four communities were selected at random from the list of communities in each of the two LGAs studied. In each of the four communities, 20 households were selected at random in two of the

communities and 25 households were selected in the other two communities based on the population of the four communities. That is, a total of 180 households of the non-project participants were studied in each of the two LGAs.

Primary data on production estimates of households, prices of farm produce (consumer prices), major buyers of farm produce, improved technologies and practices in use, soybean usage etc were generated from project participants and non-project participants. Primary data were also generated from households in the project area on farmers' perception of the project's impact in respect to access to and use of agricultural credit, crop management techniques, access and use of improved seeds etc.

In addition to the primary data, secondary data on household's farm production estimates as at project inception and consumer prices of farm produce were sourced and used.

Analytical Techniques

Double Difference Method

The impact of a policy on an outcome can be estimated by computing a double difference, one over time (before-after) and across subjects (between beneficiaries and non-beneficiaries). The "double difference" method entails comparing a treatment group with a comparison group as might ideally be determined by the score matching method both before and after the intervention. The model is specified as follows:

$$DDs = \left[\frac{1}{P}\sum_{i=1}^{p}\left(Y_{1ia} - Y_{1ib}\right)\right] - \left[\frac{1}{C}\sum_{j=1}(Y_{oja} - Y_{ojb})\right] \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(1)$$

Where:

P = Number of participants.

C = Number of individuals in the control group (i.e non-participants)

DD^s = The difference between the average changes in the income for the participants and non-participants.

Y_{1ia} = Outcome variable of participants after the programme

Y_{1ib} = Outcome variable of participants before the programme

Y_{0ja} = Outcome variable of non-participants after the programme

Y_{0jb} = Outcome variable of non-participants before the programme

Fisher index

The Fisher index is calculated as a geometric of Paasche and Laspeyres indexes and is given as $P_F = \sqrt{P_P \,.\, P_L}$,

Where P_F = Fisher Index, P_P = Paasche price index and P_L = Laspey price index.

The Fisher index was used to estimate the consumer price indexes of group of crops, livestock and household items. This is because it takes care of the overstating or understanding of inflation done by the other indices and therefore provides an overall measurement of relative prices.

Focused Group Discussion

In this study, focused discussions were held for three farmer groups i.e. women, men and youth in five project communities namely: Maina Hari and Yawi in Biu LGA, Hema and Azare in Hawul LGA and Guwal in Kwaya Kusar LGA which were used to determine farmers' opinions on the project impact on access to and use of agricultural credit, food security, farm income etc.

RESULTS AND DISCUSSION

Estimation of the Impact of the Project

The result of the analysis of the Double Difference Estimator (DDE) is in Table 1. The result shows that there is a positive mean Double Difference Estimator for maize, soybean, cowpea, sheep and goats. This implies that there was impact of the project on PROSAB farmers in respect of these. On the other hand, the result shows that there was a negative DDE for cattle of 360,667 which implies that there was no impact on PROSAB farmers. This could have been so because there was no elaborate project intervention in cattle. With respect to household items, there is a positive mean income for cars/pick ups, and houses renovated or built which implies that the project made an impact on PROSAB farmers but could not with respect to land since the mean is -84.

The level of significance is given by the P values which suggest that soybean, cowpea and houses renovated or built were found to be statistically significant at 1% level of probability while maize was significant at 5% level of probability.

The consumer price index for maize, soybean and cowpea was estimated to be 124; that of cattle, sheep and goats were estimated to be 117 while that of cars/pickups, houses renovated/built and land was estimated to be 137. What this means is that the inflation rate for crops was 24%, livestock 17% and 37% for household items over the period 2004 to 2010.

The result of analysis of the Double Difference Estimator which is on Table 1 is similar to those obtained by Nkonya et al. (2008) on the project impact on pro-poor in Nigeria where they reported that the Fadama II project had succeeded in reducing the poverty level of the beneficiary communities in Nigeria. Similarly, the findings above agree with that of Simonyan (2009) on the impact on the beneficiaries of Fadama II project in Kaduna State.

Farmer Groups' Assessment of the Impact of the Project

This section is aimed at examining farmers' assessment of impact of the project (using Focused Group Discussions) on food security, farm income, agricultural credit, crop management techniques, soybean utilization, etc.

Impact of PROSAB on Access to and Use of Agricultural Credit

The result of the analysis on the Impact of PROSAB on access to agricultural credit is on Table 2. It shows that more women (45%) than men (30%) and youth (10%) indicated that PROSAB had made some impact in their access and use of agricultural credit. This may be so because women were able to access much more credit through the Development and Exchange Centre (DEC) at Biu in view of the fact that the credit at DEC was limited to women only. Overall, more men, women and youth (54.7%) indicated that there was a decrease in impact of their access to credit while 49% of all men, women and youth were of the view that there was no

difference in the agricultural credit situation compared to what it was at the beginning of the project. More men (30%) than women (18%) and youth (20%) were of the view that their access to agricultural credit was less which implies that the impact of the project on their access to agricultural credit had decrease. This must have been on account of the fact that access to credit was a serious constraint. The finding which showed that access to credit was ranked 3rd by PROSAB farmers in 2010 is worthy of note. Similarly, the finding which showed that access to credit to agricultural credit in 2004 was ranked 3rd is worthy of note too. This underscores the seriousness of the lack of access to agricultural credit in the project area.

Impact of PROSAB on Crop Management Techniques

The result of the analysis on the impact of PROSAB on crop management techniques is on Table 2. It shows that more women (86%) indicated that PROSAB brought about improvement in crop management techniques than men (75%) and youth (67%). Overall, all groups indicated by 76% that PROSAB brought about improvement in the crop management practices in the project area than it was at project inception. This may have been so because most women were active participants than any other group. Also, although the youth participated in the project, however, the extent of participation was far below that of the women and men. This may have explained the reason for their rating of the impact of PROSAB on crop management techniques lowest. This may also be the explanation why the youth indicated that the impact of PROSAB on crop management techniques was worst than in 2004.

Impact of PROSAB on Soybean Utilization

The result of the analysis on the impact of PROSAB on soybean utilization is in Table 2. It shows that more women as indicated by 90% of them felt that PROSAB had made an impact in the project area on soybean utilization. This is likely so because:

a) Soybean was relatively a new crop in the project area as it was introduced and made popular during project implementation. Most beneficiaries became impressed with the benefits arising from its different uses; and

b) Most women adopted this technology because they saw advantages like it being a source of income and also the fact that it had the capacity to improve the nutrition of their households etc.

This finding can be understood if viewed from the previous finding that women fully participated in this activity than men and youth. Most men and youth saw the activity as one which was meant for women which might have affected their participation. The low participation of the youth might have been due to the fact that the youth were only the young men as the young women were considered as part of the women group. More youth (7%) than men (6%) and women (2%) were of the view that the impact of PROSAB on soybean utilization was less than it was in 2004. More men (14%) than youth (13%) and women (8%) were of the view that there was no difference in the impact of the project on soybean utilization.

Impact of PROSAB on Access and Use of Improved Seeds in the Project Area

The result of analysis of the impact of PROSAB on the use of improved seeds among households in the project area is on Table 2. The result showed that more men as indicated by 85% of them believed that the project brought about the increased use of improved seeds. This was followed by 83% of women and 71% of youth. This may have been so because most men as household

heads were the improved seed growers followed by women. Since most of the farm decisions like the use of improved seeds were taken by men followed by women, they were in a position to understand the extent to which the use of improved seeds in the project area impacted positively on the farmers and hence their rating of the impact of the project on access and use of improved seeds in the project area. It is not surprising therefore that fewer men (10%) than women (14%) and youth (15%) were of the view that the project impact on access and use of improved seeds was less. This finding is similar with the view expressed by all the groups as 3% women, 5% men and 14% youth were of the view that when compared to 2004, the impact of the project on access and use of improved seeds was less when compared to 2010.

Impact of PROSAB on Farm Income

The result of the analysis of the impact of PROSAB on the income of farmers in the project area is in Table 2. The result shows that more youth as indicated by 33% believed that there was no difference between farmers' farm incomes before and during the project. That is, the youth were of the view that the project did not impact positively on farmers' farm incomes. However, both the women and men groups did not share similar views as the youth as 89% of the men and 92% of the women felt the project impacted positively on farmers' farm incomes compared to 60% of the youth. This finding is supported by the finding that firstly, PROSAB farmers had higher gross margins than non-PROSAB farmers. Secondly, more women earned income through the commercialization of soybean recipes such as soybean cake, cheese, dadawa and soybean milk. Thirdly, both men and women more than youth earned a lot more income from other farm sources. This explains why fewer youth (7%), compared to women (3%) and men (2%) were of the view that the impact of the project on farmers' incomes was low.

Impact of PROSAB on Livestock Production

The result of the analysis of the impact of PROSAB on livestock production is in Table 2. The result showed that more women as indicated by 88% believed the project impacted positively on livestock production. This was followed by 77% of youth and 70% of men. This finding may have been so because of the Goats and Sheep Share Scheme introduced for which the women were the direct beneficiaries. Overall, all groups (78.3%) indicated that the project impacted positively on livestock production in the project area. In addition, the youth had been involved in livestock management than the men. This might have been so because the youth i.e. the young men were involved in providing feeds and medication to the animals than the women and the men. More youth (6%) than women (5%) and men (3%) indicated that the impact of the project when compared to 2004, the project did not make impact on livestock production. Similarly, fewer women (7%) than youth (17%) and men (27%) indicated that there was no difference in the impact of the project compared to 2004. In other words, the impact of the project on livestock production was similar to what it was in 2004. This could have been so because most men rather than women and youth did not participate in the livestock component of the project or that they were not impressed with the extent of the intervention to have created the kind of impact that could have impressed them.

Impact of PROSAB on Agro-Processing

The result of the analysis of the impact of PROSAB on agro-processing is in Table 2. More women (47%) indicated that the project had impacted positively on agro processing in the project area. This was followed by 38% of youth and 25% of men. More men (65%) felt that the

situation with respect to agro processing did not change even after project intervention. The impact of the project on agro-processing was particularly low due probably to the inability of most households to procure any agro-processing equipment for use after they were exposed to this equipment by IITA agro processing experts.

Agro-processing as important as it is did not receive the kind of priority it deserved because most of the farmers indicated that they could not afford to buy the agro-processing equipments for which demonstration were carried out for them. They could not either purchase any of the equipment(s) because they could not manage such equipment(s) as a group. Overall, the impact of the project was relatively low with respect to agro-processing. Youth (15%) as well as women (15%) indicated that the impact of the project on agro-processing had decreased compared to 10% of men. However, more men (65%) than youth (47%) and women (38%) indicated that there was no difference in the impact of the project compared to pre-project implementation in 2004.

Impact of PROSAB on Crop Production

The result of the analysis of the impact of PROSAB on crop production is in Table 2. The result showed that more men as indicated by 83% believed PROSAB impacted positively on crop production in the project area. This was followed by 81% of women and 79% of youth. 16% of the men indicated that the crop production position had not changed. Similarly, 14% of women and youth respectively believed that the crop situation did not change as a result of PROSAB intervention. Crop production was one of the most successful interventions achieved by the project. This was because most of the improved seeds and new farm technologies introduced in the project area bordered on crop production. This explains why 83% of men, 81% of women and 79% of youth indicated that the project intervention in crop production made an impact. More youth (7%) than women (5%) and men (1%) indicated that the impact of the project on crop production was less while more men (16%) than women (14%) and youth (14%) indicated that there was no difference in the crop production in 2010 when compared to 2004.

Impact of PROSAB on Food Security

The result of the analysis of the impact of PROSAB on food security is in Table 2. Nearly 93% of men, followed by 88% of women and 72% of youth indicated that PROSAB intervention led to increased food security. Nearly 27% of the youth indicated that the food situation had not changed followed by 9% women and 5% men. Overall, all the groups on the average indicated that PROSAB intervention achieved food security. Increased food production led to increased food security. Increased food production was also experienced beyond the project area. Overall, most farmers were of the view that increased food security was achieved not only in the project area but throughout the state because of the increased agricultural production. Only an insignificant few for example 3% of women, 2% of men and 1% of youth indicated that the impact of the project on food security was less while 27% of youth, 9% of women and 5% of men indicated that the food security status of households had not changed from project inception in 2004 when compared to 2010.

This finding is supported by the findings by Manza (2013) that the food insecurity status in the project area fell from 58% in 2004 to 42.8% in 2010. That is, the food security status of the project households increased from 42% to 57.2%. Similarly, the Double Difference Estimators

for soybean and cowpea were positive and significant at 1%, while the DDE for maize was significant at 5% level of significance respectively.

Impact of PROSAB on Ownership Assets

The result of the analysis of the impact of PROSAB on assets ownership is in Table 2. The result showed that 75% of women followed by 68% of men and 64% of youth indicated that the project impacted positively on asset ownership in the project area. On the other hand, 34% of youth, 32% of men and 23% of women indicated that PROSAB intervention did not substantially changed the asset ownership among the project beneficiaries. The perception of women (75%) on assert ownership might have been highest because in addition to income from the crop based enterprises and livestock based enterprises which was high as found in the gross margin analysis, women also earned income through the sale of soybean recipes they had commercialized such as soybean milk, cheese (awara), dadawa, pap (Kamu) and moimoi. The additional income as found by Manza (2013) was applied to purchase additional assets or repair/renovate assets. This explain why the double difference estimator may have been positive for cars/pick-ups and houses renovated/built suggesting that the project made an impact in asset ownership.

Only 2% of women and youth respectively indicated that a decrease in asset ownership in the project area was achieved. More youth (34%) than men (32%) and women (23%) indicated that there was no difference in the asset ownership in 2010 when compared to 2004.

Impact of PROSAB on farmers' Access to Farm Inputs

The result of the analysis of the impact of PROSAB on farmers' access to improved farm inputs is in Table 2. The results showed that 91% of men followed by 76% of women and 69% of youth indicated that PROSAB intervention enabled them to have greater access to improved farm inputs especially through the farm input dealers at Biu and other markets. On the other hand, more youth (30%) followed by women (14%) and men (7%) indicated that their input situation was not different from what it used to be.

On the average, only 2% of men, and 1% of women and youth respectively indicated that farmers' access to improved farm inputs decreased. The finding by Manza (2013) in respect of access and use of farm inputs showed that relatively more PROSAB farmers (530) than non-PROSAB farmers (355) had access and used improved farm inputs. Also, when compared between before 2004 and 2010; that is before and after PROSAB, 32.1% of the farmers used improved seeds in 2010 compared to 11.2% in 2004. Similarly, 30.8% of PROSAB farmers used inorganic fertilizers in 2010 compared to 14.5% in 2004 and 30.0% of PROSAB farmers used agrochemicals in 2010 compared to 13.9% of the farmers in 2004.

Impact of PROSAB on farmers' Access to Output Dealers

The result of the analysis on the impact of PROSAB on farmers' access to output dealers is in Table 2. The result showed that more men as indicated by 75% of them were of the opinion that the project enhanced their access to output dealers. This was followed by 60% of the women and 42% of the youth. On the other hand, more youth (55%), followed by women (38%) and men (23%) indicated that their access to output dealers did not change with PROSAB intervention. A very negligible number of men (2%), women (2%) and youth (3%) indicated that PROSAB did not enhance their access to output dealers and as a result, their access to output dealers

decreased. Access to output dealers was one of the major achievements of the project as the project introduced farmers to output dealers from outside the project area. These output dealers were supported by some of the farmers who served as output agents. However, the outreach in terms of the number of farmers who had access to output dealers was relatively low. That is, only few PROSAB farmers had their farm produce especially soybean and maize purchased by output dealers directly or by their agents.

However, those farmers who had access to output dealers received prices much higher than those who sold their farm produce in the open market in the project area. Some of the farmers indicated that they "preferred to sell to the output dealers because the output dealers gave them higher prices". Similarly, some others indicated that "sale to output dealers was more profitable because their prices were higher than in the local market".

PROSAB households rating of how the project improved their wellbeing

The result of the analysis of PROSAB households rating of how the project improved their wellbeing is in Table 3. This finding shows how PROSAB farmers rated how their participation in the project had improved their wellbeing. Most farmers rated their ability to pay school fees of their children easily highest (22.3%). This was followed by their ability to buy inorganic fertilizer and agrochemicals (20.5%), build new houses or renovated their houses (16.3%). Based on the ranking in the improvement of the wellbeing of PROSAB households, the least perceived benefit or improvement in their wellbeing was the ability to marry an additional wife or wives. This was closely followed by other benefits they achieved which were ranked 9^{th}.

The basis of such ranking can be easily understood if we realize that most PROSAB farmers received increased farm incomes especially for those who cultivated maize, soybean and cowpea. It is likely that the increased incomes were used to pay children school fees, buy more inorganic fertilizer and agrochemicals, bought bicycles, motor cycles, pickups and so on.

CONCLUSION

The positive mean Double Difference Estimator (DDE) for maize, soybean, cowpea, sheep, goats, car/pick-ups and houses renovated/built suggest that the project made an impact with respect to these while the negative mean DDE values for cattle and land suggest that the project did not make an impact with respect to theseWith respect to the qualitative analysis i.e the focus group discussions held, all groups were of the opinion that the project made substantial impact on crop management techniques, soybean utilization, access and use of improved seeds, farm income, livestock production, crop production, food security, asset ownership and access to farm inputs. The impact was moderate for farmers' access to output dealers. Their opinion with respect to farmers' access and use of agricultural credit and agro-processing was that there was no impact which the Project made on these. The results call for the following recommendations;
The positive mean DDE for all the crop enterprises and a negative mean DDE for cattle suggest that in the future, similar projects should also emphasize livestock enterprises too.The relatively low perception by farmers on the impact of farmers' access to output dealers suggest that increased agricultural production by farmers' must be supported by a market for the increased production to ensure increased incomes and hence greater living incomes of the farmers in the Project area.Access to and use of agricultural credit for farm production should be enhanced in the project area in order to enhance increased agricultural production.

Table 1: Double Difference Estimator for Crop Enterprises, Livestock Enterprises and Household Items

Variables	Mean	Std deviation	t-value	p-value	Std Error
Crop Enterprises					
Maize	373,221	10,502.43	4.08	0.050	114.38
Soybean	379,484	4,509.82	7.03	0.000	364.59
Cowpea	204,458	6,821.13	4.06	0.010	480.84
CP1	124				
Livestock Enterprises					
Cattle	-360,667	21,102.34	6.37	0.12	179.70
Sheep	773,208	6,713.92	5.19	0.13	149.14
Goats	401,709	5,744.30	1.49	0.12	93.77
CP1	117				
Household Items					
Cars/Pickups	57	8,407,71	2.18	0.08	31.95
Houses Rev./built	62	5,871,63	3.86	0.01	7.69
Land	-84	1,777.01	9.41	0.19	20.68
CP1	137				

Source: Field Survey Data, 2010
Significant at 1% level of probability
Significant at 5% level of probability

Table 2: Farmers Perception of Impact of PROSAB in the Project Area in 2010

Group	Increase (%)	Decrease (%)	Same (%)
Access & Use of Agricultural Credit			
Men	30.0	30.0	40.0
Women	45.0	18.0	37.0
Youth	10.0	20.0	70.0
Mean	28.3	54.7	49.0
Crop Management Techniques			
Men	75.0	5.0	20.0
Women	86.0	3.0	11.0
Youth	67.0	10.0	23.0
Mean	76.0	6.0	18.0
Farmers access to Input Dealers			
Men	75.0	2.0	23.0
Women	60.0	2.0	38.0
Youth	42.0	3.0	55.0
Mean	59.0	2.3	38.7
Soybean Utilization			
Men	80.0	6.0	14.0
Women	90.0	2.0	8.0
Youth	70.0	7.0	13.0
Mean	80.0	5.0	15.0
Farmers Access and Use of Improved seeds			
Men			
Women	85.0	5.0	10.0
Youth	83.0	3.0	14.0
Mean	71.0	14.0	15.0
Farm Income	79.7	7.3	13.0
Men			
Women	89.0	2.0	9.0
Youth	92.0	3.0	5.0
Mean	60.0	7.0	33.0
Livestock Production	80.3	4.0	5.7
Men			
Women	70.0	3.0	27
Youth	88.0	5.0	7.0
Mean	77.0	6.0	17.0
Agro Processing	78.3	4.7	17.0
Men			
Women			
Youth	25.0	10.0	65.0
Mean	47.0	15.0	38.0
Crop Production	38.0	15.0	47.0
Men	36.7	13.3	50.0
Women			
Youth	83.0	1.0	16.0
Mean	81.0	5.0	14.0
Food Security	79.0	7.0	14.0
Men	81.0	4.3	14.7
Women			
Youth	93.0	2.0	5.0
Mean	88.0	3.0	9.0
Ownership of Assets	72.0	1.0	27.0
Men	84.0	2.0	13.7
Women			
Youth	68.0	0.0	32.0
Mean	75.0	2.0	23.0
Famers' Access to Farm Inputs	64.0	2.0	34.0
Men	69.0	1.3	29.7
Women			
Youth	91.0	2.0	7.0
Mean	76.0	0.0	14.0
Famers' Access to output dealers	69.0	1.0	30.0
Men	78.7	1.0	20.3
Women			
Youth	75.0	2.0	23.0
Mean	60.0	2.0	38.0
	42.0	3.0	55.0
	59.0	2.3	38.7

Source: Focused Group Discussion with Women, Men & Youth Farmers, 2010

Table 3: How Households Wellbeing was improved through their Participation in the Project

	PROSAB Farmers		
Constraint	**Frequency**	Percent	Rank
Bought more land for farming	30	6.5	7th
Bought animals for rearing	54	11.6	5th
Bought a motorcycle/car/pick-up van	57	12.2	4th
Build/renovated his/her house	76	16.3	3rd
Was able to pay children's school fees easily	104	22.3	1st
Bought furniture for use in the house	33	7.1	6th
Married another wife	15	3.2	8th
Bought fertilizer and agro-chemicals	96	20.5	2nd
Others	2	0.4	9th
Total	**467**	**100.0**	

Source: Field Survey Data, 2010

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