

AFRICA CENTRE FOR GENDER , SOCIAL RESEARCH AND  
IMPACT ASSESMENT

# The Win-Win for Gender, Agriculture and Nutrition Project

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Midline Assessment Report: Results and  
Discussion

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## 1. Demographic Information

### 1.1 Respondent Distribution by Province, Commune and Treatment

A total of 82 female respondents were interviewed in the mid-line evaluation. Of these, 30.5% were selected from EKATA group, 28% from the Gender Light group and 41.5% from the control group (Table 1). By province, 52.4% were from Gitega and 47.6% from Kirundo.

Table 1: Respondent Distribution by Province, Commune and Treatment

Province	Commune	EKATA	Gender Light	Control	Total Sample
Gitega	Bugendana	5	5	5	15 (18.3%)
	Buraza	0	3	9	12 (14.6%)
	Mutaho	5	5	6	16 (19.5%)
Kirundo	Mwambarangwe	5	5	3	13 (15.9%)
	Kirundo	2	4	8	14 (17.1%)
	Ntega	8	1	3	12 (14.6%)
	Total	25 (30.5%)	23 (28%)	34 (41.5%)	82 (100)

### 1.2 Distribution by Household Type

Respondents in the three treatment categories mainly came from male headed households (Table 2). Female headed households were least in the gender light group (13%) and most in the EKATA group (36%). Due to the small proportion of female headed households, it was not meaningful to analyze the data by household type. Instead, the analysis focuses on drawing comparisons among the three treatment groups.

Table 2: Distribution by household type

Household type	EKATA	Gender Light	Control	Total Sample
Male headed (%)	64	87	76	76
Female headed (%)	36	13	24	24
Total (%)	30	28	42	100

## 2. Asset Acquisition

Overall, survey respondents reported that 59% of households purchased small consumer durables in the last 12 months while 39% had acquired additional land (Table 3). Other widely purchased assets included non-mechanized farm equipment (33%) and livestock (pigs 34%, goats 24% and poultry 24%). Buildings (11), non farm equipment (11), sheep (7), cattle (6.1) and fishponds (0) were the least acquired in decreasing order. The analysis of acquisition and intra-household ownership of each assets follows hereafter.

Table 3: Proportion of households who acquired assets by treatment group (%)

Treatment	Agric. Land	Cattle	Goats	Sheep	Pigs	Poultry	Fish ponds	Non-mechanized farm equipment	Non-farm equipment	Small consumer durables	Buildings
Control	32	0	15	3	26	24	0	41	12	74	12
Gender light	48	13	26	13	39	22	0	22	4	43	9
EKATA	40	8	36	8	40	28	0	32	16	52	12
All households	39	6.1	24	7	34	24	0	33	11	59	11

## 2.1 Land Acquisition and Ownership

### 2.1.1 Land Ownership in the Last 12 Months

Thirty nine per cent of households acquired more land in the last 12 months (Figure 1). The proportion of households that acquired more land was highest in the Gender Light group at 48% and lowest in the control group at 32%. The Gender Light and the EKATA treatment groups have had training on rice production and improved agronomic practices and this may have triggered an increase in the land under cultivation.

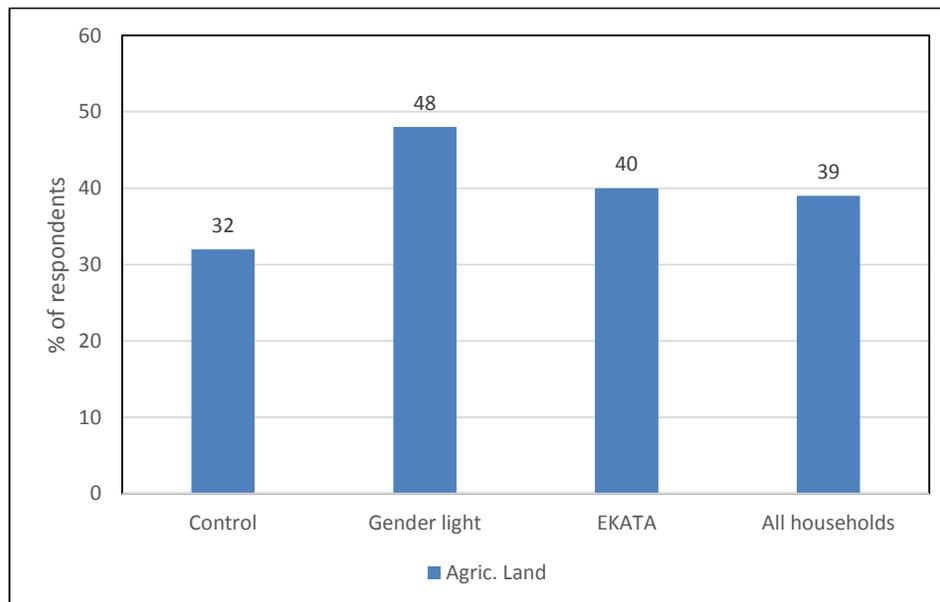


Figure 1: Proportion who acquired land

### 2.1.2 Intra-household Ownership of Acquired Land

62.5% of the respondents reported that they owned the land they acquired in the last 12 months jointly with their spouses (Table 4). Only 12.5% of women reported owning land individually. Joint ownership is a complex concept, highly subjective and perceptions may differ even among spouses who lay claim on a single asset.

Table 4: Intra-household land ownership

Asset	Land	
	Freq.	%
Who owns?		
Individually by my self	4	12.5
Individually by my spouse	8	25
Jointly by myself and my spouse	20	<b>62.5</b>
Others	0	0
Total	32	100

## 2.2 Livestock Acquisition and Ownership in the last 12 Months

### 2.2.1 Livestock Acquisition in the Last 12 Months

Another change in asset ownership was in the acquisition of cattle, goats, sheep, pigs and poultry. Of the five livestock types tracked, pigs were the most acquired livestock, followed by goats and poultry in the three treatment groups (Figure 2). More households in the EKATA group acquired pigs (40%), goats (36%) and poultry (28%) compared to other groups. Comparatively, households in the Gender Light group acquired more pigs (39%) and goats (26%) than the control group's 26% and 15%, respectively. However, households in the control group had slightly more poultry (24%) than the Gender Light group (22%).

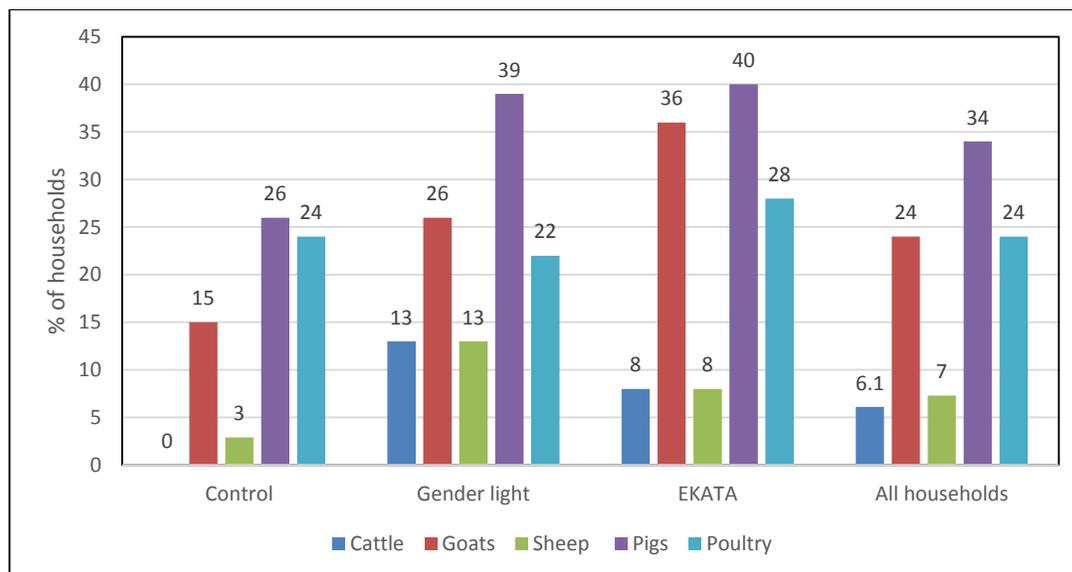


Figure 2: Proportion of households who acquired livestock in the last 12 months

### 2.2.2 Intra-household Ownership of Livestock

Half of the women from households that acquired goats (52.2%), poultry (50%) and pigs (47.7%) reported owning them individually (Table 5). In 62.5% of households that acquired cattle, the animals were mainly individually owned by husbands. The highest incidences of joint ownership were reported for sheep (42.9%) and pigs (33.3%). Women seemed to have more leeway for individually owning small domestic animals than cattle.

Table 5: Intra-household livestock ownership

Asset	Cattle		Goats		Sheep		Pigs		Poultry	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Individually by my self	1	12.5	12	<b>52.2</b>	1	14.3	11	<b>47.7</b>	11	<b>50</b>
Individually by my spouse	5	<b>62.5</b>	6	26.1	3	42.9	6	22.2	6	27.3
Jointly by myself and my spouse	2	25	5	21.7	3	<b>42.9</b>	9	<b>33.3</b>	5	22.7
Others	0	0	0	0	0	0	1	3.7	0	0
Total	8	100	23	100	7	100	27	100	22	100

## 2.3 Acquisition and Ownership of Other Forms of Assets in the Last 12 Months

### 2.3.1 Acquisition of Other Forms of Assets in the Last 12 Months

Non-mechanized farm equipment, non-farm equipment, small consumer durables, buildings and non-agricultural land were least acquired (Figure 3). Of these assets, small holder consumer durables were bought more frequently across all treatment groups (59%). Non-agricultural land and buildings were the least acquired.

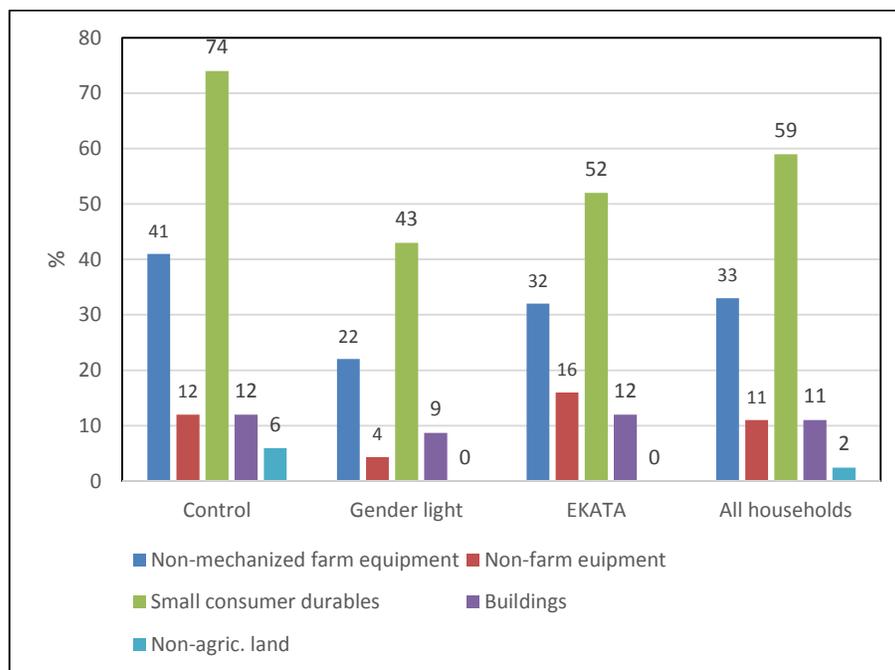


Figure 3: Proportion of households who acquired other types of assets

### 2.3.2 Intra household Ownership of Other Household Resources

Joint ownership was reported as highest for non-farm business equipment (62.5%), consumer durables (51%), non-mechanized farm equipment (48.3%), and buildings (40%) in decreasing order (Table 6).

Table 6: Intra-household ownership of other assets

Asset	Non-mechanized farm equipment		Non-farm business equipment		Consumer durables		Buildings	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Who owns?								
Individually by my self	7	24.1	2	25	14	28.6	2	20
Individually by my spouse	8	27.6	1	12.5	6	12.2	4	40
Jointly by myself and my spouse	14	<b>48.3</b>	5	<b>62.5</b>	25	<b>51</b>	4	<b>40</b>
Others	0	0	0	0	4	8.2	0	0
Total	29	100	8	100	49	100	10	100

### 3. Rice Production and Productivity

#### 3.1 Proportion of Households that Grow Rice

While over 90% of the households in the EKATA and Gender Light groups grew rice, only 65% in the control group grew rice (Figure 4). This is expected as the livelihoods interventions in these groups are focused on rice production.

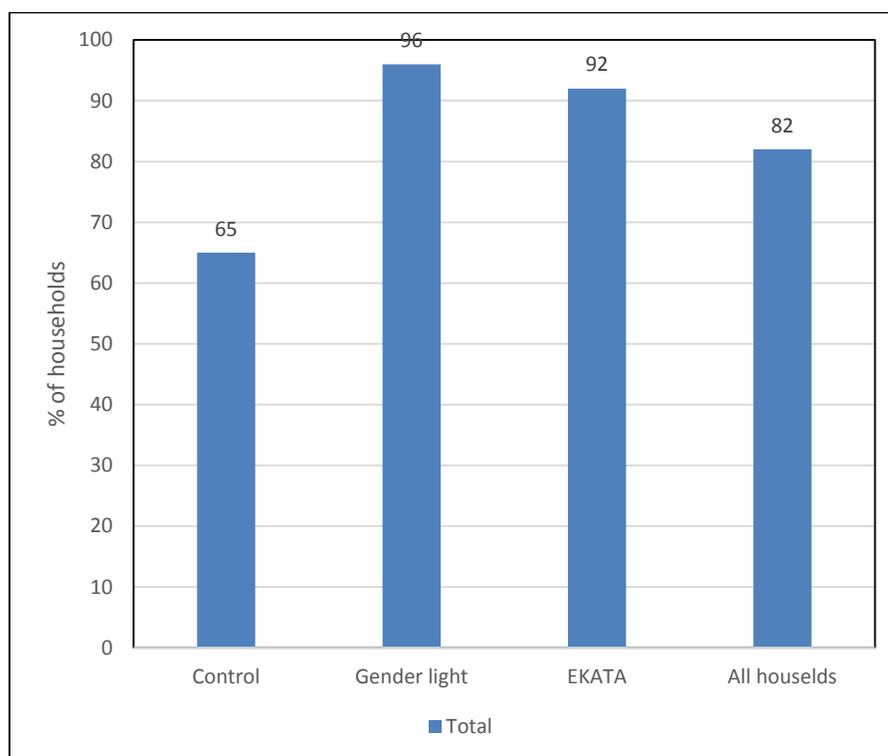


Figure 4: Proportions of households growing rice

### 3.2 Rice Production and Productivity

Looking at rice production and productivity, the EKATA respondents had more land on rice production (6.2 acres), harvested the highest quantity of rice of 240kg, and sold the most quantities (21kgs) compared to the other two groups. (Table 7). In terms of incomes, households in the EKATA group made 7 times more income (149,956.5) than households in the control group (20,833.3) and 4.6 times more income (32,818.2) than the Gender Light group. The Gender Light group had the second highest acreage under rice production, rice produced at 125kgs but the lowest rice productivity per acre of land at 38.7Kg. However, all these differences were not statistically significant ( $p > 0.05$ ) at 95% confidence level (Table 7).

Table 7: Production and productivity of rice

Rice production	Treatment				ANOVA test
	Control	EKATA	Gender light	Average for all treatment groups	
Area planted for rice	3.2	<b>6.2</b>	5.8	5.1	F(2,63)=0.60, p=0.5499
Quantity harvested (Kgs)	116	<b>240</b>	125	162	F(2,63)=1.10, p=0.3379
Rice productivity(Kgs/Acre)	76.0	<b>88.4</b>	38.7	67.9	F(2,63)=2.06, p=0.1364
Quantity sold (Kgs)	3	<b>21</b>	12	12	F(2,63)=1.17, p=0.3171
Quantity for home consumption (Kgs)	2	7	11	7	F(2,63)=1.70, p=0.1902
Quantity used other purposes(Kgs)	16.3	9.7	6.4	10.8	F(2,63)=2.13, p=0.1269
Total revenue from sale	20,833.3	<b>149,956.5</b>	32,818.2	69,825.8	F(2,63)=0.23, p=0.7976

### 3.3 Participation in Making Production Decisions

Most women participated in decision making concerning staple grain farming (91%), routine household purchases eg food (90%), raising small livestock (70%), non-farm business activities like businesses (45%) and poultry farming (43%) (Table 8). A similar pattern is observed in the three treatments (Figure 5). The decisions they participated least in making included: raising large livestock (27%), high value crop farming (28%) and large occasional household purchases (29%). Very few women engaged in decision making on fishpond culture because it was not a common agricultural activity.

Table 8: Participation in making productive decisions

Activity	Freq	Percent
Staple grain farming and processing	75	<b>91</b>
Horticultural(gardens)or high value crop farming and processing	22	27
Large livestock raising( Cattle, buffaloes) and processing	23	28
Small livestock raising( sheep, goats, pigs) and processing	57	<b>70</b>
Poultry and other small animals raising( chickens, ducks)	35	<b>43</b>
Fishpond culture	4	5
Non-farm economic activities(running a small business)	37	<b>45</b>
Wage and salary employment(work that is paid for in cash)	28	34
Large, occasional household purchase(bicycles, land)	24	29
Routine household purchase(food for daily consumption)	74	<b>90</b>

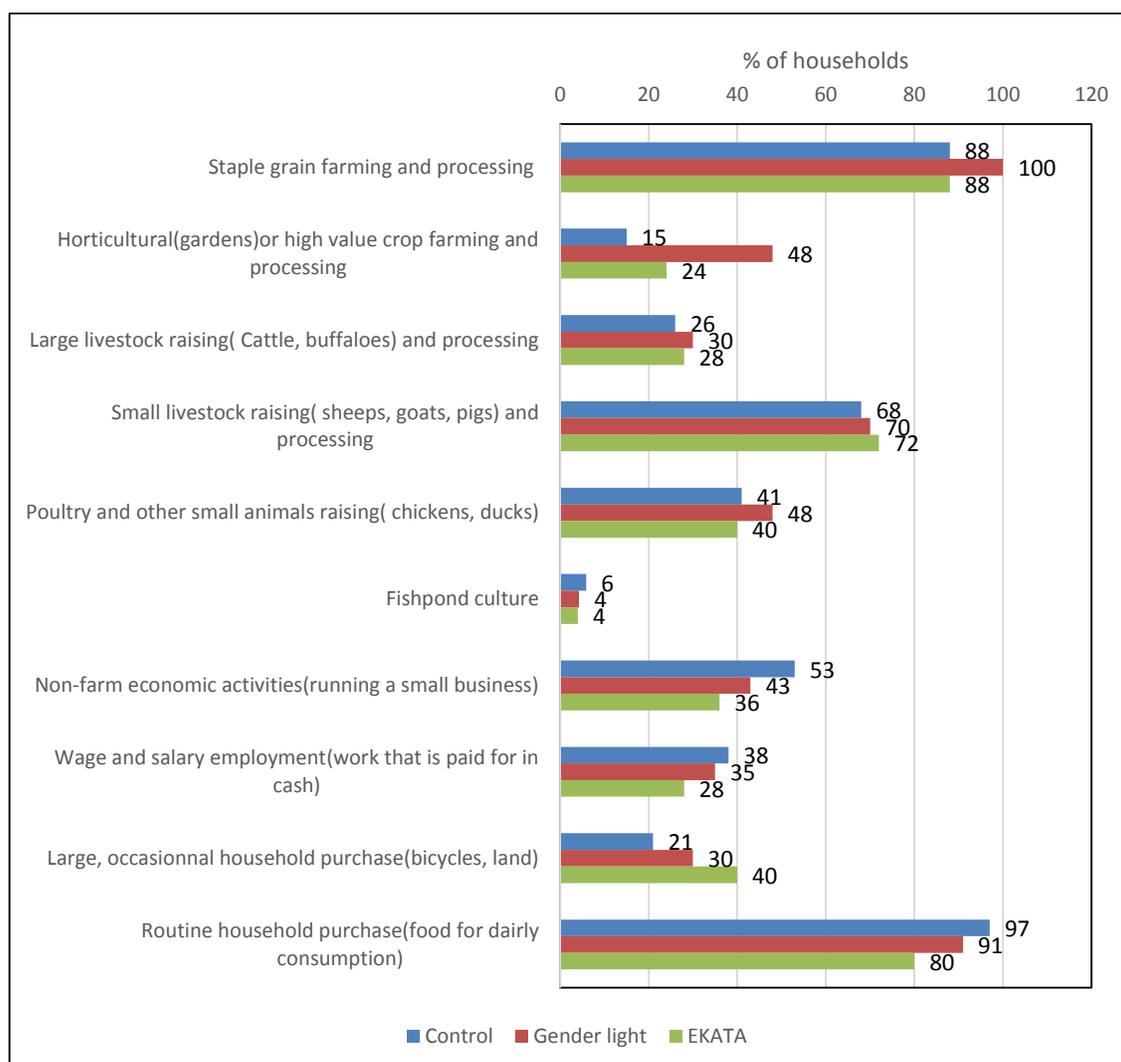


Figure 5: Participation in decision making by treatment

### 3.4 Household Incomes

The average income for all households in the sample was 238, 712 Burundi Franc (Table 9). Households in the EKATA group made more income than either the Gender Light or the Control groups. The EKATA group made 4 times more money from rice production and 1.5 times more from other crops than the Gender Light group. However, the Gender Light group made 4 times more income from livestock and livestock products than the EKATA group. The control group earned the least from other sources (14,853), about a quarter of the income earned by the EKATA's group. However, all these differences were not statistically significant ( $p>0.05$ ) at 95% confidence level.

Table: 9 Quantity of household income by household type and treatment group

Product		Rice	Kitchen garden	Other crops	Livestock and livestock products	Other sources	Total (Burundi Francs)
All households		74,494	12,077	97,220	13,530	41,390	<b>238,712</b>
By treatment group	Control	56,985	14,996	65,441	16,618	14,853	<b>168,893</b>
	EKATA	137,960	11,720	143,600	4,480	65,760	<b>363,520</b>
	Gender light	31,391	8,152	93,783	18,804	54,130	<b>206,261</b>

### 3.5 Decision Making on Income Use

In 85% and 78% of the households, women made most or all the decisions on the use of income from the sale of vegetables and livestock and livestock products respectively. Lumping of livestock and livestock products in one category masks the extent of decision making on livestock accrued incomes. Women are more likely to be making decisions over income from livestock products than from the livestock. Among single products, women from 64% of households, had least contribution to decision making on use of income from rice. This may be indicative of a male takeover of the rice marketing as production becomes more productive.

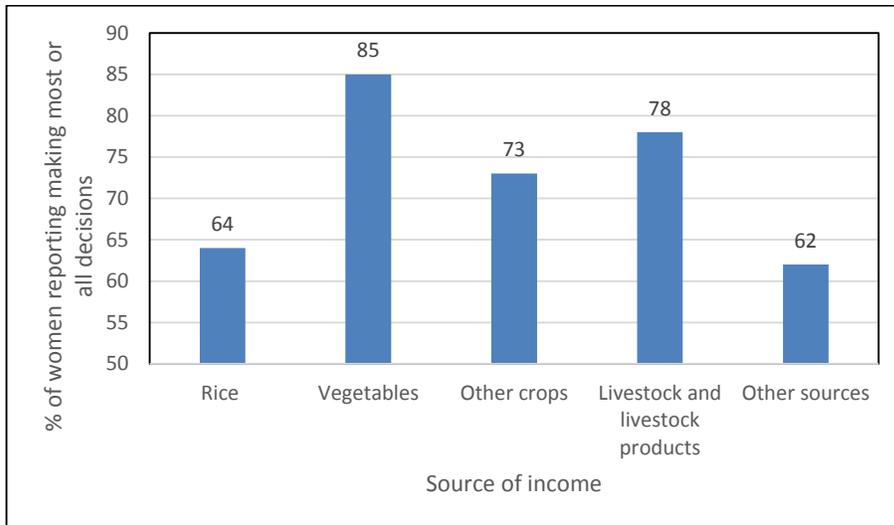


Figure 6: Proportion of women who make most or all decisions on income use from various income sources

#### 4. Food and Nutrition Security

##### 4.1 Household Dietary Diversity Scores (HDDS)

The household dietary diversity is defined as the number of unique foods consumed by household members over a given period. It often measures the number of different foods/food groups eaten over a 24 hour reference period of time, not regarding the frequency of consumption. Each food group that was eaten in the last 24 hours is given a score of 1 and that which was not eaten a score of 0. The total score at household level when all foods are eaten is 12 (range 0-12). Scores of <4.5 are interpreted as low dietary diversity, 4.5-6 medium dietary diversity, 6+ as good (IFPRI). Data using this indicator is best collected during periods of acute food shortage. The HDDS is a useful approach for measuring household food access, particularly when resources for undertaking such measurement are scarce.

Women's DDS, regardless of the treatment group they came from, were higher than for men (Table 10). The DDS recorded for women, men and the index child in 2017 are higher than those observed in the baseline. Compared to 2016, women's DDS increased by 1.6, men's with 0.7 and the Index child's with 2.9. In the EKATA group, the Index Child's DDS in 2017 (6.6) is two times more what was recorded in 2016 (3.2), making it the greatest improvement. These results are a spot check and cannot be assumed to have prevailed in the last 12 months. HDDS results are influenced by the season in which the data is collected.

Table 10: HDDS scores

Treatment	CONTROL		EKATA		Gender Light		Total sample	
	2017	2016	2017	2016	2017	2016	2017	2016
Women's DDS	7.0	5.2	6.9	5.1	6.5	5.1	6.8	5.2
Men's DDS	5.6	4.9	5.9	5.1	5.5	4.9	5.7	5.0
Index child's DDS	6.6	3.7	6.6	3.2	6.5	4.2	6.6	3.7

#### 4.2 Food Consumption Score (FCS)

The FCS is a food security indicators calculated using the frequency of consumption of different food groups consumed by a household in the last 7 days before the survey. FCS takes into consideration both the frequency and quality of food consumed by attaching higher weights on animal source foods. It is calculated by multiplying the number of times the food group has been consumed (ranging from 0-7) by its weight.

$$\text{FCS} = (4 \times \text{meats}) + (4 \times \text{milk and milk products}) + (3 \times \text{pulses}) + (2 \times \text{staples/cereals}) + (1 \times \text{vegetables}) + (1 \times \text{fruits}) + (0.5 \times \text{oils/fats}) + (0.5 \times \text{sugar and honey}) + (0 \times \text{condiments})$$

Scores of 0-21 are classified as poor, 21.5-35 as borderline and >35 as acceptable. Households in all treatment groups had FCS higher than 39, meaning that they had acceptable levels of food security. Households in the Gender Light group had the highest FCS at 48.1 followed by the EKATA group at 42.7 and the control group at 42.6. The overall FCS for all the three treatment groups was 44.2 (Figure 7). In percentage form, 76% of households from the Gender Light group had an acceptable food secure, followed by the EKATA group at 69.6% and the control at 64.7% (Figure 8). In all households, 69.5% of had acceptable FCS. While the findings suggest that households are food secure, this could be a function of the season in which survey was conducted and does not mean that households have been food secure throughout the last year.

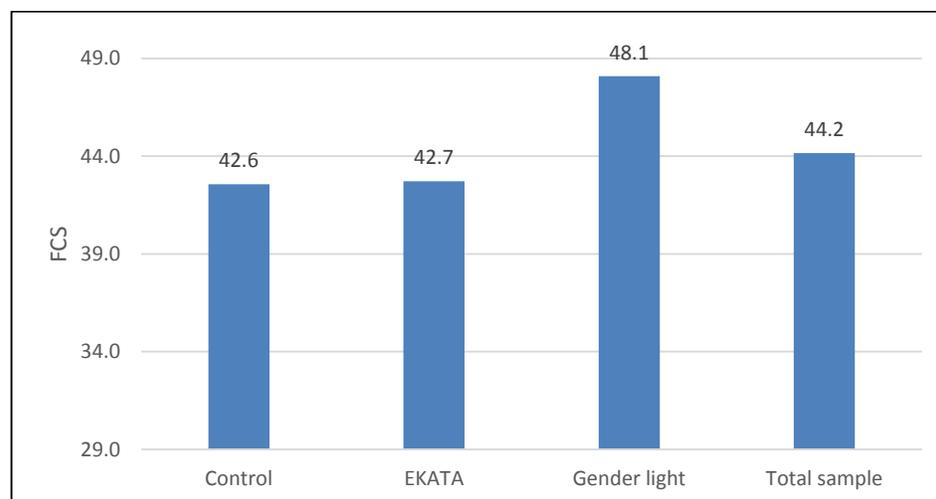


Figure 7: Food Consumption Scores by treatment group

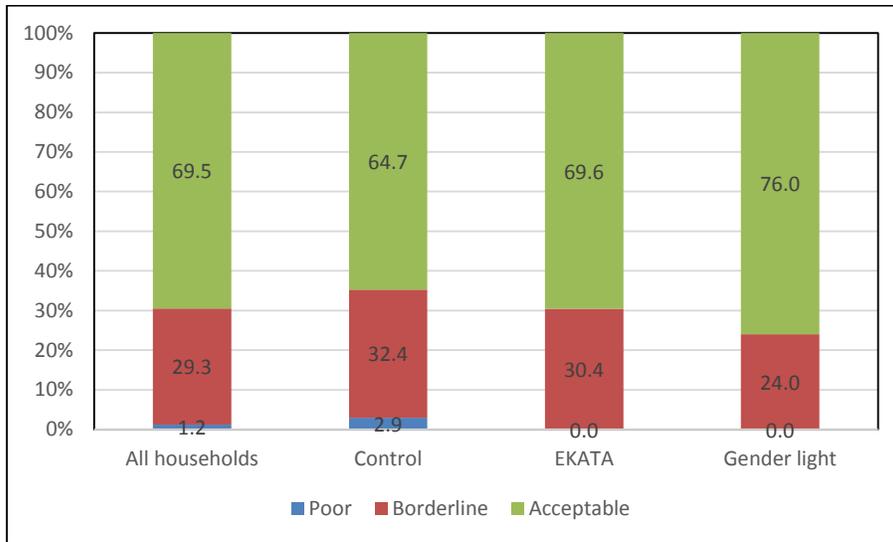


Figure 8: Proportion of households that are food secure by treatment group

### 4.3 Dietary Changes

63.4% of respondents reported that their households had changed diets in the last 12 months (Figure 9). By treatment group, changes were reported in the gender light households (82.6%), EKATA (56%) and the control group in reducing order (55.9%).

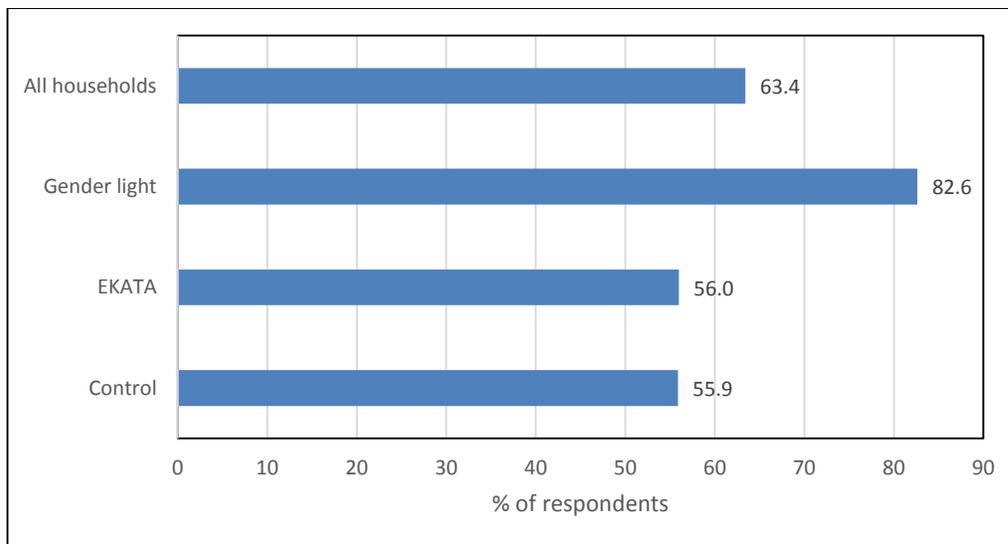


Figure 9: Proportion that changed their diet by treatment

### 4.4 Types and Drivers of Diet Change

The types of changes faced by households in the last 12 months were both positive and negative. Positive changes included: increased consumption of vegetables, consumption of vegetables produced at home, increasing consumption of different food varieties, increasing rice production, improved child health, increased availability of food items, increase in number of meals had per day. Of these, consumption of vegetables was identified by most

respondents. The factors that drove the changes can be categorized into positive and negative drivers. The drivers of the positive change included: changes in attitudes/perception about food items, learning new ways of preparing certain foods, increased confidence in how to prepare certain dishes, receiving training on importance of having a vegetable garden, access to vegetable seeds, having a vegetable garden, having a good harvest in the previous season, availability of income to purchase food, access to credit facilities and receiving talks on health. Negative changes included decrease in food availability, low productivity and lack of income to purchase food and were fueled by shortage of certain food items eg mari in some part of the year or in the market, lack of money to purchase food items and extended dry weather.

## 5. Attitudes Towards Gender Based Violence

### 5.1 Gender Based Violence Intolerance Levels

The EKATA group of women showed the highest rate of intolerance to gender based violence as demonstrated by the respondent proportions in 7 of 8 indicators (Table 11). The four main scenarios in which they felt gender based violence was not justified included: burning food (92%), arguing with your spouse (84%), spending money without telling your spouse (80%) and taking credit without the spouses knowledge (80%). This may indicate that the EKATA group of women had a greater sense of agency and better conflict management and negotiation skills compared to the other treatment groups.

Comparatively, women from the control group had greater intolerance for gender based violence than those in the gender light category. The gender light group had the lowest number of women opposed to gender based violence in 7 of the 8 indicators. The lowest scores were related to mobility (going out without telling your spouse (39%) and coming home late (30%)) and control over income (spending money without telling your spouse (43%) and taking credit without your spouse's knowledge (48%)). Cumulatively, 34% of the interviewed women felt that husbands had no justification whatsoever for abusing their wives (Figure 10). A greater number of EKATA women agreed that there was no justification for spousal violence (48%) while the least were from the Gender Light group (26%). These findings should however be interpreted with caution because the sample size was too small to confidently generalize to the project.

Table:11 Proportion of respondents opposed to spousal gender based violence

Cause for Abuse	Control	Gender light	EKATA	All
Goes out without telling him	68	39	<b>68</b>	60
Neglects children	76	52	<b>72</b>	68
Argues with him	<b>82</b>	<b>70</b>	<b>84</b>	79
Refuses to have sex with him	<b>68</b>	<b>70</b>	<b>72</b>	70
Burns food	<b>79</b>	<b>78</b>	<b>92</b>	83
Comes home late at night	44	30	<b>56</b>	44
Spends money without telling him	65	43	<b>80</b>	63
Takes credit without his knowledge	53	48	<b>80</b>	60

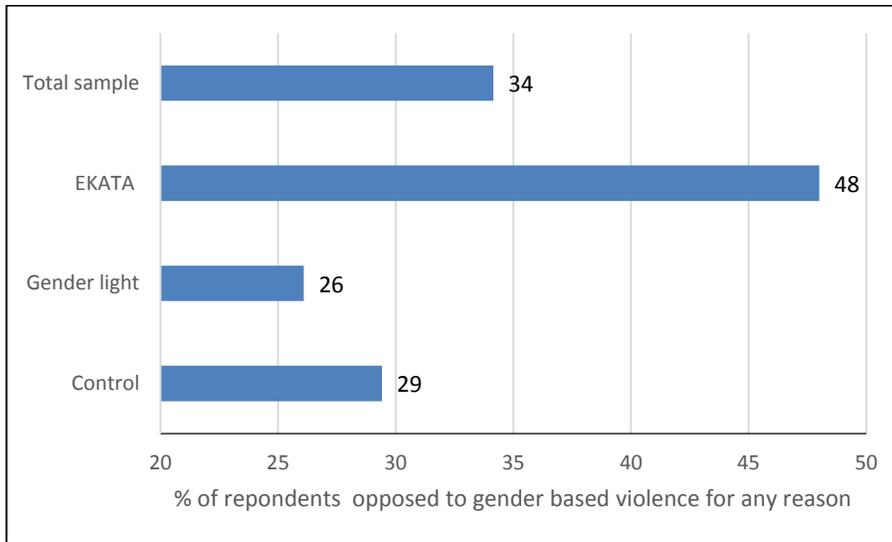


Figure 10: Women opposed to gender based violence for any reason

### 5.2 Proportion of Women who Experienced Gender Based Violence

Only a small proportion of women reported having faced gender based violence in the last 12 months. While a low number of gender based violence incidents were reported (14.3% , n=77), this finding should be interpreted carefully as it may be as a result of under reporting (Figure 11). Victims of gender based violence may be unwilling to disclose their predicament for fear of embarrassing themselves, further violence or expose their spouses "in bad light". Respondents who reported experiencing gender based violence identified the triggers of conflict as: disagreements over allocation of household income to desired expenditures, crop management and low agricultural productivity and alcoholism.

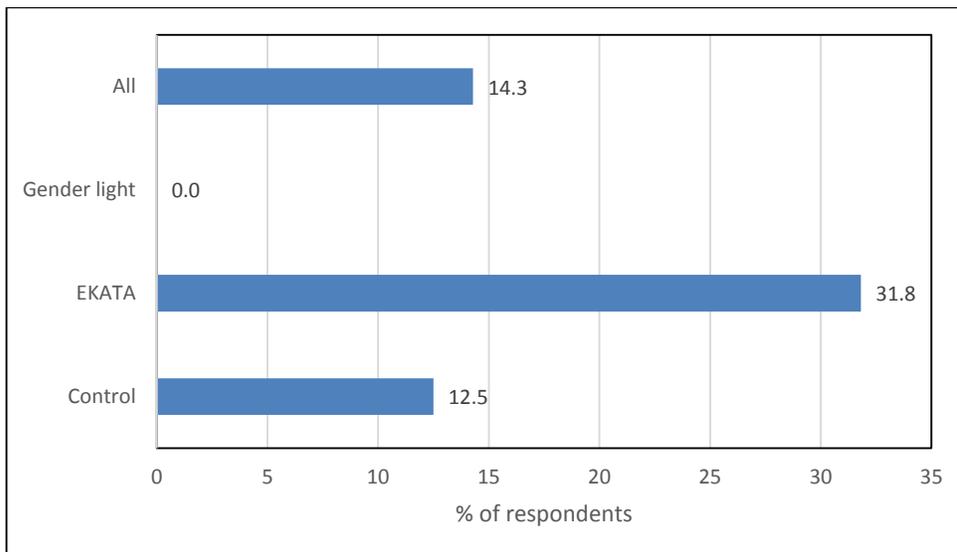


Figure 11: Proportion of women who faced GBV

## 6. Collective Action

### 6.1 Membership to Group Saving and Loan Associations

Nearly all survey respondents, 96.3%, were members of a group saving and loan associations (GSLAs). A slightly lower percentage (85%) had disclosed their GSLA membership to their spouses.

### 6.2 Extent of Spousal Support for GSLA Membership

Majority, 63.4%, reported a high extent of spousal support in for GSLA membership, 14.6% moderate and 12.2% none at all. By treatment, 76% of EKATA, 24% gender light and 47% control respondents received a high extent of support for GSLA membership (Figure 12). The motives for extending support to the wives in GSLA were not pursued in this study.

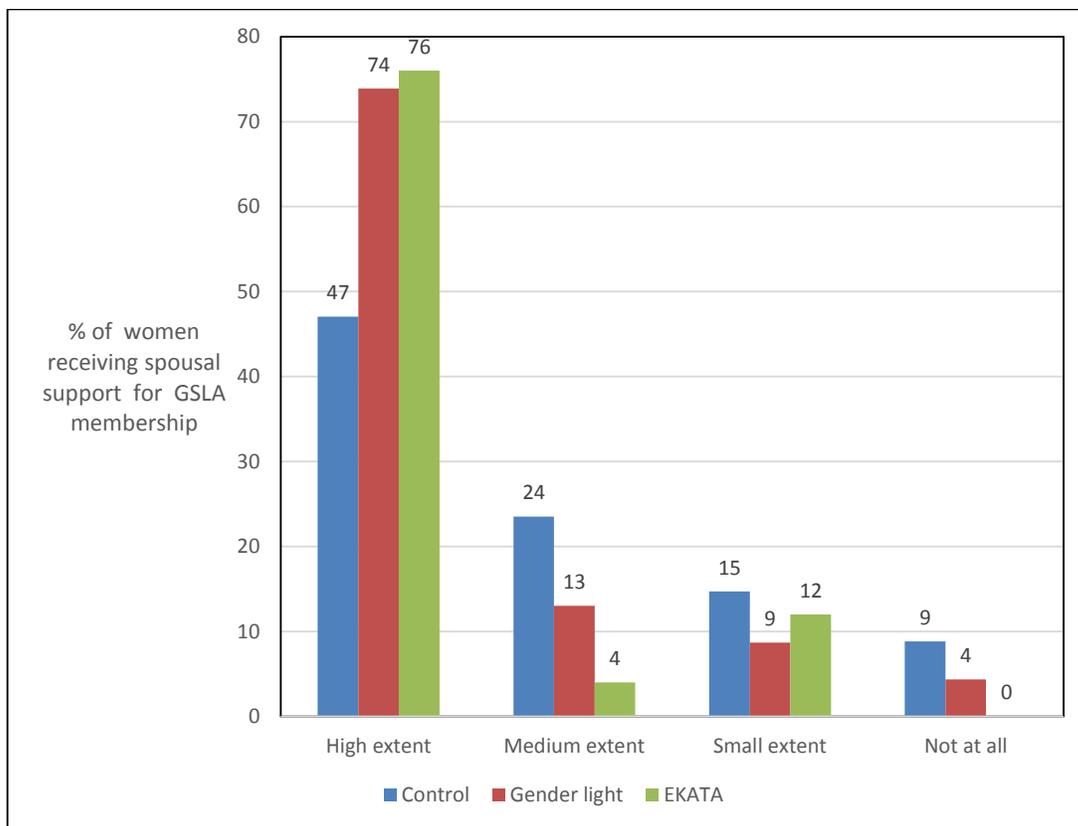


Figure 12: Extent of spouse support of GSLA membership by treatment

## 7. Labour Distribution at Household Level

### 7.1 Proportion of Husbands who Participate in Domestic Work

Half, 51%, of women reported receiving assistance in their domestic roles. The highest support was in harvesting, selling agricultural produce, land tilling and planting in decreasing order. Women received least assistance in cooking, house cleaning, washing clothes and

childcare, roles that are traditionally considered female (Table 12). This pattern is repeated across the EKATA, gender light and control groups (Table 12). These roles are conducted very frequently and place huge labour demands at on women. Women received greatest assistance Men's interest in harvesting may be driven by the intention to prepare the produce for sale. This might also be indicative of men taking over women's produce, which has potential for leaving women more vulnerable than before. A higher proportion of the gender light group reported receiving help from their spouses compared to the others.

Table: 12 Proportion of husbands who participate in domestic work by treatment

<b>Domestic Work</b>	<b>Control (%)</b>	<b>Gender light (%)</b>	<b>EKATA (%)</b>	<b>All households (%)</b>
Any domestic work	53	57	44	51
<b>Child care</b>	<b>35</b>	<b>61</b>	<b>40</b>	<b>44</b>
<b>Cooking</b>	<b>24</b>	<b>26</b>	<b>32</b>	<b>27</b>
<b>House cleaning</b>	<b>8.8</b>	<b>17</b>	<b>24</b>	<b>16</b>
<b>Washing clothes</b>	<b>24</b>	<b>30</b>	<b>36</b>	<b>29</b>
Grazing livestock	41	70	48	51
Watering livestock	41	61	48	49
Treating sick animals	44	65	40	49
Tilling land	56	83	48	61
Planting	56	78	40	57
Weeding	44	65	48	51
<b>Harvesting</b>	<b>65</b>	<b>78</b>	<b>64</b>	<b>68</b>
<b>Selling produce</b>	<b>59</b>	<b>83</b>	<b>60</b>	<b>66</b>

## 7.2 Extent of Satisfaction with Current Distribution of Labour

By treatment, 69.6% of women from the Gender Light group expressed high satisfaction with the current distribution of labour, followed by the EKATA (56.5%) and Control group at (55.9%) with near equal levels of satisfaction (Figure 13). Among all women 60% were very satisfied with the current distribution of domestic work, 28.8% were neither satisfied nor dissatisfied while 11.3% were not satisfied. While more than half of the respondents reported satisfaction with distribution of labour, the result ought to be interpreted carefully because the satisfaction could be as a result of normalizing high workloads and therefore not seeing the inequalities that exist.

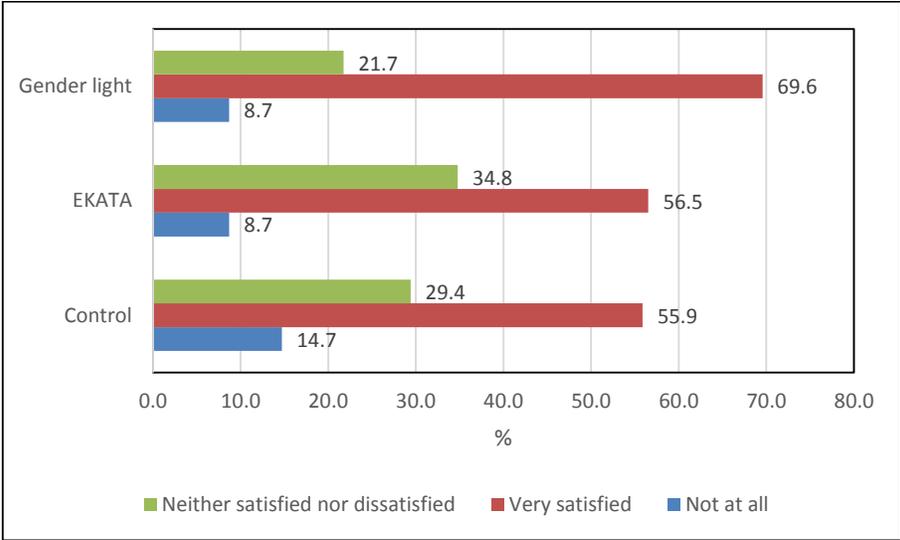


Figure 13: Extent of satisfaction with labour distribution