



NORWEGIAN CHURCH AID

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Evaluation Summary

| Evaluation | UNDCF end-term evaluation |
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| Publication year: | 2021 |
| Donor: | UNCDF |
| Name of Organisation(s): | Norwegian Church Aid (NCA) |
| Internal, External or Mixed team? | Internal |
| Local Partner(s): | This is a NCA operational project. The project is supported by 5 agronomists with salary from NCA's partner ELCT ND (Evangelical Lutheran Church of Tanzania – Northern District) |
| Country/Region: | Tanzania, Kigoma region |
| Author: | Planning, Monitoring, Evaluation and Reporting Officer and Climate Smart Economic Empowerment Lead (Project Manager) from NCA Tanzania office |
| Commissioned by: | Norwegian Church Aid |
| Type of evaluation (midline endline, formative): | Endline |
| DAC-sector: | 31140 Agricultural water resources, 31150 Agricultural inputs, 31161 Food crop production, 31163 Livestock |
| DAC-criteria used: | Effectiveness, sustainability |
| Intervention period: | May, 21, 2020 till |
| Key words: | Micro investing concept, money journey model concept, drip irrigation |
| Evaluation summary and recommendations (max 2 pages): | <p>Objective: On 21st May 2020, NCA Tanzania was contracted by UNCDF to implement a permaculture initiative in Kigoma. The initiative builds on UNCDF's work on Youth and Women Economic Empowerment (YWEE). Other UNCDF contracted partners such as KIYADO, DRC and GNTZ have been working to support village loan and savings groups in Kasulu, Kibondo and Kakonko. NCA's mandate is to continue supporting these groups by introducing the Micro Investing concept, with proof of the Money Journey Model concept. The key intervention areas include access to micro irrigation kits for horticultural production, bundled with quality inputs (seeds, fertilizers, and pesticides), agronomic support through employed agronomists as well as digital extension (e-learning and e-extension). The end term internal evaluation was conducted to identify areas for improvement for future programme design and implementation as well as realizing the project goals were achieved. Specifically, the evaluation aimed at assessing the demographic demonstration in relation to the production, also identifying the current sources of income if the farmers were able to prioritize the horticultural production to increase their income. The study also assessed the extent to which producers were able to borrow their savings and invest into horticultural production as well as in general improved farming practises.</p> <p>Method: The evaluation was a cross-sectional, mixed-methods approach that included collecting and analysing quantitative and qualitative data (both primary and secondary) to address each evaluation objective. Specific methods of data collection used by the survey team include document review, structured individual interview to farmers and key informant interview (KII) who were the Agronomists. The Agronomist are the focal persons for the project specifically in providing the technical support to farmers to increase productivity.</p> <p>Key Findings:</p> |

The internal end term survey covered 150 respondents; 39% (59) were men, and 61% (91) women.

57% (N = 85; 53 women; 32 men) of the people interviewed reported to borrow their savings from their saving and landing groups to invest in agricultural production especially horticultural farming. It was further realized that less than 50% (N = 15; 10 women, 5 men) of respondents in Kibondo borrow their savings to invest in horticultural production. The results shown that 82% (N = 70; 42 women; 28 men) used the loan for agricultural related activities including purchasing of improved inputs; seeds. Fertilizers and pesticides). Only five respondents reported to use the loan for non-agricultural needs. There was a great improvement on farmers to invest on agricultural production compared during baseline survey whereby only 32% of respondents invested their borrowed savings in agriculture related needs. The survey revealed that 93% (N = 140; 86 women; 54 men) are members of producer groups. The rate has increased compared to baseline survey as only 18% of respondents were members. It was reported by respondents that 91% (N = 136; 83 women; 53 men) were not benefited from those producer groups. Only fourteen respondents reported to benefit from those groups. The reasons reported for those responses were that the purchasing agricultural inputs and searching for markets were not collectively done.

100% (N = 150; 91 women; 51 men) are still using drip irrigation and all of them have the plan to continue using them. This is a remarkable achievement compared to baseline. The baseline showed that there was heavy reliance on rain for crop production and when irrigation was applied, this is done using watering cans. It was realized that 77% (N = 115; 69 women; 46 men) reported the drip irrigation technology to be sustainable method for getting the income as the technology is using little water for irrigation compared to can method. 100% of respondents reported to use improved agricultural inputs including seeds, fertilizers, and pesticides and 100% of respondents had the plan of continuing using improved agricultural inputs. 94% (N = 141; 84 women; 57 men) of respondents had mobile phone for accessing the messages of improving productivity as well as COVID – 19 messages. 90% (N = 135; 80 women; 55 men) of respondents received the e-learning training on improving agricultural practises to complement the work done by six employed Agronomists. This filled the gap identified during the baseline survey whereby it was realized that farmers depended on self-acquired knowledge of agriculture. 73% (N = 110; 67 women; 43 men) of respondents reported to be benefited from commercial linkages to service providers. Comparing with baseline information achievements of the project has been realized on farmers to be trained collectively.

No improvement has been observed on dietary diversity compared to baseline survey.

All respondents 100% (N = 91) reported to access the reusable sanitary pads and declared to their menstrual hygiene management has much improved their participation in economic activities and build their self-esteem and confidence. This is the great improvement compared to baseline survey whereby only 12% of respondents reported to have access to affordable and reusable pads/towels.

Project sustainability: To sustain the project beyond the funding period, the 39 producer groups with 513 (370 women; 143 men) will be handled over to local government authorities to continue getting support from Extension Officers.

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| | <p>Lesson learnt: Formation of producer groups is one of the effective strategies of increasing income to producers as it opens the door for negotiable agricultural inputs and market opportunities. Project beneficiaries differ in terms of project perception and implementation due to illiteracy rate. Therefore, continuous capacity building to producers is vital for successful project. Practising good agricultural practises is a way of producing more yields hence high profitability even in a very small land (area).</p> <p>Implementation challenges: High cost of improved agricultural inputs (seeds, pesticides, and fertilizers) and drip irrigation kits limit most of the farmers to expand their project. The shortage of water in most of the areas limited the accessibility of horticultural crops especially during dry seasons. Most of the farmers did not wear safety gears during the pesticides application which is dangerous for their health. Unfavourable weather limited availability of horticultural crops throughout the year. In some areas was a challenge to get improved agricultural inputs.</p> <p>Specific Recommendations:</p> <p>The major recommendations for future programming is to get the agricultural inputs loans in terms of cash or goods and repay them after harvesting. Proposed to increase the variety of horticultural crops especially fruit production. Supporting farmers on market accessibility if possible, in and beyond Tanzania. Motivate farmers who are doing well one of the strategies they proposed is to take documentation and disseminate to various stakeholders and social media. To be trained on diseases management of the crops. Further recommendations from project management team is to do more sensitization and follow up to farmers to sustainably prioritizing growing horticultural crops. Effectively link the project beneficiaries to other stakeholders for other technical support especially on cross cutting issues of the project ie GBV, SRHR, VSLA, Nutrition and document the achievement in connection with project objectives. Identification of farmers role models for each district to be trained as Training of Trainers (TOT) so that they can disseminate the knowledge to other producers. Strengthening and document the linkage of producers to agricultural commercial service providers. This to be done by Agronomist in collaboration with government Extension workers and NCA. Link producers to other microfinance institutions to getting loan to invest in horticultural production.</p> |
| Cross-cutting issue(s): | Cross cutting issues that are part of the model are nutrition and gender, especially the integration of reusable sanitary kits for women farmers. |
| Link to full report: | |
| Link to preregistration form: | |
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UNITED NATIONS CAPITAL DEVELOPMENT FUND (UNCDF)



YWEE Kigoma, Tanzania

End Term Internal evaluation report

Submitted by Norwegian Church Aid



May, 2021

1. Executive summary

The end term internal evaluation report for NCA Tanzania 2020 presents the findings and status of implementation since its inception in May, 21, 2021. The evaluation was conducted in three Districts of Kigoma Kasulu, Kibondo and Kakonko. From each districts the 150 (91 women; 51 men) project beneficiaries were selected purposely those are in the project since the beginning of the project. The six wards and respondents from twelve villages were involved in the survey. Overall, the survey focused on Youth and Women Economic Emperment (YWEE).

Methodology: The survey used a mixed approach to capture quantitative and qualitative data. The structured questionnaire was employed to get the quantitative and qualitative information. To capture the qualitative infomation the community voices were recorded as well as the success or interesting stories were documented. The purposive sampling was employed to get the the representatives from 6 wards (Bitulana, Kasanda, Kiziguzigu, Mrufyiti, Nyamnyusi and Nyaruyoba) who were initially identified during the start of the project. The selected respondents were coming from 12 villages Biturana, Kabingo, Kasaka, Kasanda, Kabingo, Kitema, Kilema, Kiziguzigu, Murufyiti, Nyamigombero, Nyamnyusi and Nyaruyoba. The selection of respondents considered the farmers who have been in the project since the beginning of the project. The two groups of project stakeholders were interviewed, the representatives of direct beneficiaries and Project Agronomists.

One hundred and fifty (N = 150) respondents from three districts Kasuku, Kibondo and Kakonko were interviewed during the survey. Each district comprised fifty (N = 50) respondents. A total of 6 Agronomist were also interviewed as the key informants for the project.

Key findings: The internal end term survey covered 150 respondents; 39% (59) were men, and 61% (91) women. The question about the ages of respondents were asked wether were 35 years and below (young people/youth) or above 35 years who were grouped as adults. The 44% (N = 66; 40 women; 26 men) of respnsents found to be youth and 56% (N = 84; 51 women; 33 men) were the adults. More than half of the respondents were married, 83% (124 persons;73 women; 51 men), followed by single respondents, 11% (16 persons; 73 women; 51 men). Followed by 5 (4 women; 1 man) who were divorced and 5 women widow. More than half of repsondents 75% (N = 113; 69 women; 44 men) has completed primary school education, followed by illiterate 16% (N = 24; 16 women; 8 men), followed by secondary education 8 percent (N = 12 persons; 5 women; 7 men) and only one person (man) attended diploma collage .

As far as current primary economic activities are concerned, 47% (N = 71 persons; 39 women; 32 men) of respondents interviewed were involving in non horticultural crops production only, 20% of respondents (N = 30 persons; 23 women; 7 men) were involved in horticultural crops only, 9% (N = 13 persons; 10 women; 3 men) of respondents were involved in both horticultural and non horticultural crops. The 22% of respondents (N = 33 persons; 20 women; 13 men) were involved in 3 sources of income non horticultural, horticultural and business at the same time. Before the start of the project 95% (N = 142; 86 women; 56 men) were involved in non horticultural crops only, only two persons reported to be involved in horticultural crops, 4 persons were involved in non and horticultural crops at the same time. Only two person reported to be involved in business only and one person reported to be involved in livestock keeping.

The 57% (N = 85; 53 women; 32 men) of the people interviewed reported to borrow their savings from their saving and landing groups to invest in agricultural production especially horticultural farming. It was further realized that less than 50% (N = 15; 10 women, 5 men) of respondents in Kibondo borrow their savings to invest in horticultural production. The maximum amount of savings taken by respondents was TZS 500,000 which were taken by two respondents and the minimum was TZS 10,000. The survey also revealed that only 16% (24; 12 women; 12 men) of respondents were able to take loan from TZS 100,000 to 500,000. The rate is the same as during the baseline survey whereby 16% of respondents were able to borrow their savings between TZS 200,001 – 500,000. The results shown that 82% (N = 70; 42 women; 28 men) used the loan for agricultural related activities including purchasing of improved inputs; seeds. Fertilizers and pesticides). Only five respondents reported to use the loan for non-agricultural needs. There was a great improvement on farmers to invest on agricultural production compared during baseline survey whereby only 32% of respondents invested their borrowed savings in agriculture related needs. The survey revealed that 93% (N = 140; 86 women; 54 men) are members of producer groups. The rate has increased compared to baseline survey as only 18% of respondents were members. It was reported by respondents that 91% (N = 136; 83 women; 53 men) were not benefited from those producer groups. Only fourteen respondents reported to benefit from those groups. The reasons reported for those responses were that, the purchasing agricultural inputs and searching for markets were not collectively done.

The survey found that 100% (N = 150; 91 women; 51 men) are still using drip irrigation and all of them have the plan to continue using them. This is a remarkable achievement compared during the start of the project. The baseline survey results showed that there is heavy reliance on rain for crop production. Even when irrigation is applied, this is done using watering cans. It was realized that 77% (N = 115; 69 women; 46 men) reported the drip irrigation technology to be sustainable method for getting the income as the technology is using little water for irrigation compared to can method. The survey revealed that 100% of respondents reported to use improved agricultural inputs including seeds, fertilizers, and pesticides. The surveyors found that 100% of respondents had the plan of continuing using improved agricultural inputs. The survey revealed that 94% (N = 141; 84 women; 57 men) of respondents had mobile phone for accessing the messages of improving productivity as well as COVID – 19 messages. Was further found that 76% (N = 114; 67 women; 47 men) had featured phone while 27 (17 women; 10 men) had smart phone. The results show that 90% (N = 135; 80 women; 55 men) of respondents received the e learning training on improving agricultural practises to complement the work done by six employed Agronomists. This felt the gap identified during the baseline survey whereby it was realized that farmers depended on self-acquired knowledge of agriculture. Results show that 73% (N = 110; 67 women; 43 men) of respondents reported to be benefited from commercial linkages to service providers. Comparing with baseline information achievements of the project has been realized on farmers to be trained collectively.

The survey revealed that most of respondents 56% (N = 84) had adequate access to fruits and vegetables for only four to six months annually which are rainy seasons. The results are the same as during the baseline survey as it was revealed that most of respondents had adequate fruits and veggies four to six months annually. Results show that only 53% (N = 80; 49 women; 31 men) consumed the fruits and vegetables on daily basis which as per recommendable nutrition requirements. No household reported not to consume the fruits and vegetables. This is slight improvement compared to baseline survey whereby most families consumed fruits and vegetables

several times in a week. The survey revealed that only 47% (N = 71) of respondents were aware on the importance and consumed variety of fruits and vegetables during the project period. No improvement has been observed on dietary diversity compared during baseline survey whereby 59% of respondents reported to consume variety of fruits and vegetables. All respondents 100% (N = 91) reported to access the reusable sanitary pads and declared to their menstrual hygiene management has much improved their participation in economic activities and build their self-esteem and confidence. This is the great improvement compared to baseline survey whereby only 12% of respondents reported to have access to affordable and reusable pads/towels.

Project sustainability; To sustain the project beyond the funding period, the 39 producer groups with 513 (370 women; 143 men) beneficiaries were already formed, the work is in progress for forming more groups. The producer groups will be handled over to local government authorities to continue getting support from Extension Officers. The project will continue providing the training on how to increase productivity to farmers so that at the project end the farmers could have knowledge to continue improving the agricultural practises for more productivity.

Lesson learnt; Formation of producer groups is one of the effective strategies of increasing income to producers as it opens the door for negotiable agricultural inputs and market opportunities. Project beneficiaries differ in terms of project perception and implementation due to illiteracy rate. Therefore, continuous capacity building to producers is vital for successful project. Practising good agricultural practises is a way of producing more yields hence high profitability even in a very small land (area).

Implementation challenges for the project were high cost of improved agricultural inputs (seeds, pesticides, and fertilizers) and drip irrigation kits limit most of the farmers to expand their project. The shortage of water in most of the areas limited the accessibility of horticultural crops especially during dry seasons. Most of the farmers did not wear safety gears during the pesticides application which is dangerous for their health. Unfavourable weather limited availability of horticultural crops throughout the year. In some areas was a challenge to get improved agricultural inputs.

The major recommendations for future programming were to get the agricultural inputs loans in terms of cash or goods and repay them after harvesting. Proposed to increase the variety of horticultural crops especially fruit production. Supporting farmers on market accessibility if possible, in and beyond Tanzania. Motivate farmers who are doing well one of the strategies they proposed is to take documentation and disseminate to various stakeholders and social media. To be trained on diseases management of the crops.

Further recommendations from project management team were to do more sensitization and follow up to farmers to sustainably prioritizing growing horticultural crops. Effectively link the project beneficiaries to other stakeholders for other technical support especially on cross cutting issues of the project ie GBV, SRHR, VSLA, Nutrition and document the achievement in connection with project objectives. Identification of farmers role models for each district to be trained as Training of Trainers (TOT) so that they can disseminate the knowledge to other producers. Strengthening and document the linkage of producers to agricultural commercial service providers. This to be done by Agronomist in collaboration with government Extension workers and NCA. Link producers to other microfinance institutions to getting loan to invest in horticultural production.

2. Background and context

On 21st May 2020, NCA Tanzania was contracted by UNCDF to implement a permaculture initiative in Kigoma. The initiative builds on UNCDF's work on Youth and Women Economic Empowerment (YWEE). Other UNCDF contracted partners such as KIYADO, DRC and GNTZ have been working to support village loan and savings groups in Kasulu, Kibondo and Kakonko. NCA's mandate is to continue supporting these groups by introducing the Micro Investing concept, with proof of the Money Journey Model concept. The key intervention areas include access to micro irrigation kits for horticultural production, bundled with quality inputs (seeds, fertilizers, and pesticides), agronomic support through employed agronomists as well as digital extension (e-learning and e-extension). Cross cutting issues that are part of the model are nutrition and gender, especially the integration of reusable sanitary kits for women farmers.

3. Evaluation purpose and objectives

The end term internal evaluation was conducted to identify areas for improvement for future programme design and implementation as well as realizing the project goals were achieved. But also sharing the results about what was more and less effective will help to advance future programming. Evaluation enables to demonstrate the programme success or progress. The information collected allows to communicate the programme impact as well as sustainability to project stakeholders which is critical for public relations. Evaluation findings also attracting and retaining support from current potential funders. Specifically, the evaluation aimed at; assessing the demographic demonstration in relation to the production, also identifying the current sources of income if the farmers were able to prioritize the horticultural production to increase their income. The study also assessed the extent to which producers were able to borrow their savings and invest into horticultural production as well as in general improved farming practises. The study will assess the extent of integration for the project cross cutting issues. Evaluation assessed the lesson learnt. Finally, the evaluation seeks to know the gaps, things went well as well as general recommendations from the evaluation participants.

4. Methodology

4.1 Approach

The evaluation was a cross-sectional, mixed-methods approach that included collecting and analyzing quantitative and qualitative data (both primary and secondary) to address each evaluation objective. The quantitative approach sought to quantify selected measurements (for example, respondent characteristics, existing conditions and trends), generating usable statistics that can be used to articulate facts, views and patterns. On the other hand, the qualitative method used open-ended questions to explore and give a full description of facts, phenomena and trends under evaluation, for example, what has changed as a result of the project and how.

The evaluation team, comprised of a Planning, Monitoring, Evaluation and Reporting Officer and Climate Smart Economic Empowerment Lead (Project Manager) from NCA Tanzania office and 5 Agronomists for supporting logistics at field.

4.2 Data sources and collection

The evaluation used both primary data drawn from direct beneficiaries (farmers) who are currently engaged in horticultural production and secondary data from reports related to the project. Specific

methods of data collection used by the survey team include document review, structured individual interview to farmers and key informant interview (KII) who were the Agronomists. The Agronomist are the focal persons for the project specifically in providing the technical support to farmers to increase productivity.

4.3 Document Review

The survey team collected and reviewed some key documents and reports related to the YWEE including the baseline report, project update report, project agreement to be familiarized with the project design (its approach, goal, objectives, results and target beneficiaries) and reach.

4.4 Key Informant Interview (KII)

The key informant interview was done to 6 Agronomist who are providing the technical support to producers for increasing productivity. The KIIs were semi-structured consisting of both open-ended and closed questions to provide the informants with a degree of freedom to share their experiences and views related to the project. The survey team administered the interviews with the key informants through providing them the questionnaires to fill themselves.

4.5 Surveyed locations and population

The surveyed districts include Kasulu, Kibondo and Kakonko, from 6 wards Biturana, Kasanda, Kiziguzigu, Murufyiti, Nyamnyusi and Nyaruyoba. The respondents were coming from 12 villages Biturana, Kabingo, Kasaka, Kasanda, Kabingo, Kitema, Kilema, Kiziguzigu, Murufyiti, Nyamigombero, Nyamnyusi and Nyaruyoba. The respondents were selected purposely to represent the general population, those who were involved in the project since the beginning of the project were given the priority. Each district was represented by 50 respondents whereby 61% (N = 91) were females and 39% (N = 59) males. The figure below summarizes the number of respondents interviewed per district.

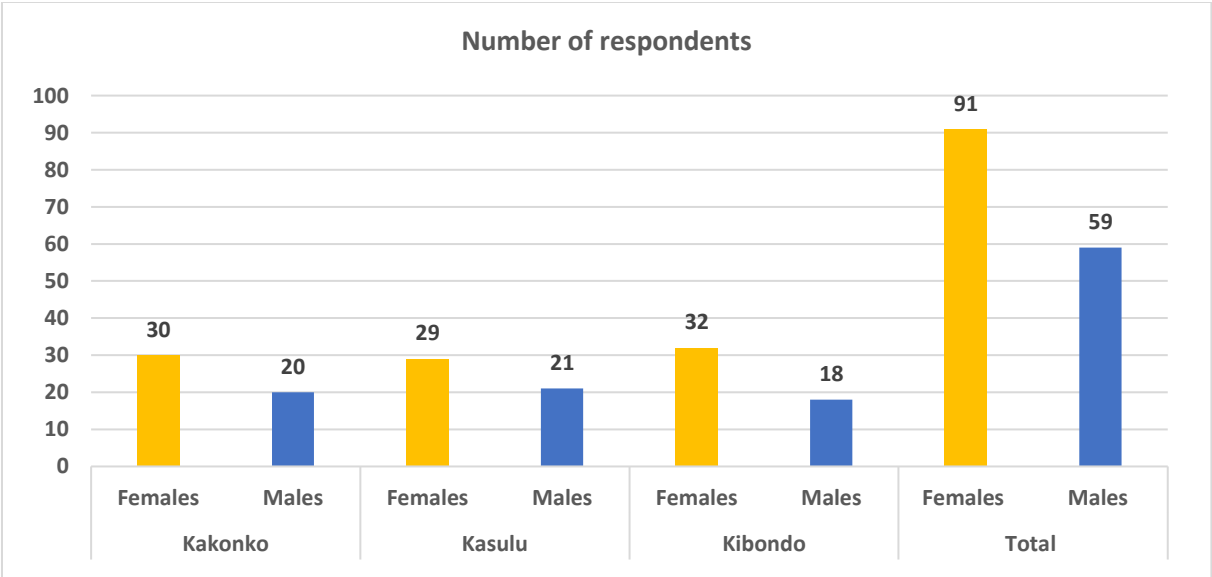


Figure 1: number of respondents by districts by sex

4.6 Sample size and selection

The target population of the survey included 150 beneficiaries' representatives from all 3 districts Kakonko, Kasulu and Kibondo, 6 wards Biturana, Kasanda, Kiziguzigu, Murufyiti, Nyamnyusi and Nyaruyoba. The respondents were coming from 12 villages Biturana, Kabingo, Kasaka, Kasanda, Kabingo, Kitema, Kilema, Kiziguzigu, Murufyiti, Nyamigombero, Nyamnyusi and Nyaruyoba. The 6 project Agronomists were also interviewed. Based on the Project's documents and information shared by project team, the project had a total 1250 beneficiaries by the time when a survey was conducted. Among them a total of 513 beneficiaries (370 females; 143 males) were joined into 39 producer groups. From both beneficiaries and Agronomists, the survey team achieved a response rate of 100%. In addition, the survey team interviewed capture two success (interesting stories) from beneficiaries on getting more qualitative information. The community voices were also documented. The sampling frame was both purposive and randomized. Purposive sampling was used to cover all the three project districts and project beneficiaries. Purposive sampling procedure was employed to get the wards and villages which the respondents were coming from. The respondents were purposely selected (old producers).

The sample size and representation of various groups from all wards and villages to a greater extent been affected by the availability of funds and time.

4.7 Sampling strategy

In all these areas, a selected number of respondents was based on who were involved since the beginning (old producers) of the project were purposely selected. Then the simple random sampling was employed to get the representatives from the old producers. The selection was not only based on who are still a member of producers' groups rather were selected were selected randomly and were asked if they are still members or non-members of those producer groups.

4.8 Data handling and analysis

Each data collection method was carried out in its entirety and analysed separately. The assessment of the quality of data collected were done through reviewing the filled questionnaires. Then the data were entered into excel sheet, data cleaning was also done. All the data were coded for analysis, PIVOT tables were employed for analysis.

4.8.1 Quantitative data analysis

Responses to close-ended questionnaires were entered into an Excel spreadsheet for cleaning, coding, and analysis. The study team computed simple frequencies and descriptive analysis of the data with stratification (where appropriate) by district, beneficiary and other survey variables.

4.8.2 Qualitative data analysis

The survey team analysed KII who were Agronomists. Also, the responses to open ended questions from beneficiaries their text was coded according to key themes of interest that aligned with the study objectives and questions. The Key themes were tallied in an Excel spreadsheet for analysis, the PIVOT table field was used.

4.9 Ethical consideration

All persons participating in the survey participated voluntarily, were informed of the confidentiality of the interview, and offered oral consent before data collection.

4.10 Limitation of survey

The survey intended to reach all respondents engaged in baseline survey for comparison, efficiency and effectiveness of measuring the project results. But due to time and financial limitation this was not achieved.

5. Key findings

5.1 Demographic characteristics

In the survey, 61% (N = 91) of the respondents were women as the main targeted group for the project, the 39% (N = 51) were men. This composition is good because it represents well the general population whereby the project main target group are women and young people. This is in line with our design principle for the Micro Investing where evidence suggests that women are willing to make smaller investments because they are affordable and there is little risk involved. The initiative targeted to empower the women and hence also address various gender related issues that might exist in their families and community at large. Integrating issues of sexual, reproductive health and nutrition targeting this group was the well-integrated in the project through provision of sanitary pads to women.

Another demographic factor considered in this survey was the age of respondents whereby 56% (N = 84; 51 women; 33 men) were adults meaning above 35 years of age and 44% (N = 66; 40 women; 26 men) were young people at 35 and below years age). The respondent composition enhanced to get the good representatives from both groups (youth and adults). The 83% (N = 124; 73 women; 51 men) of respondents were the married couples, followed by single (N = 16; 9 women; 7 men), divorced (N = 5; 4 women; 1 men) and widows (N = 5; 5 women) to all districts.

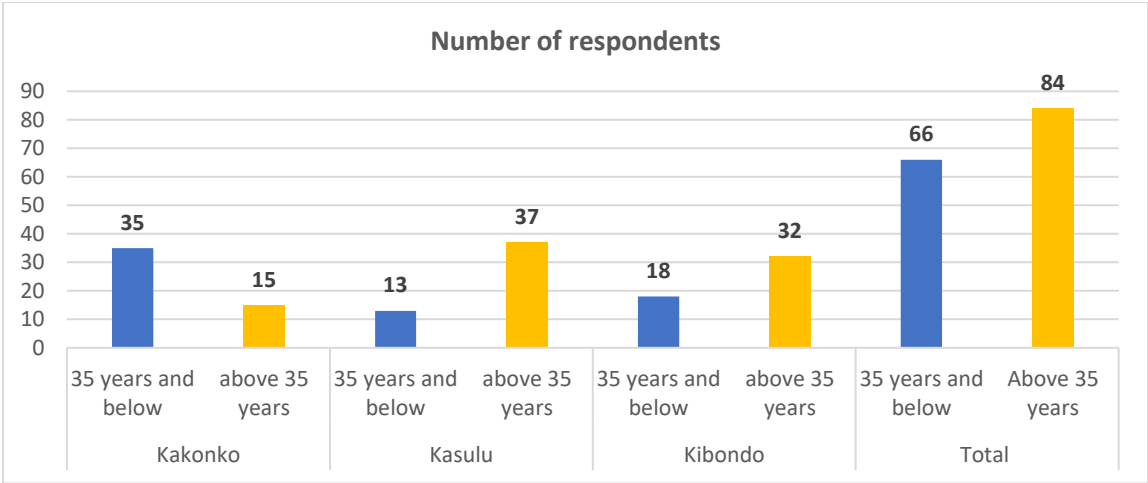


Figure 2: age of respondents

Another demographic factor considered in the survey was the education level of the respondents. The results show that more than half, 75% (113; 69 women; 44 men) of respondents have a primary level of education. Only one respondent had a collage diploma. The results indicated that there is a need to plan and strategize the capacity building sessions considering the level of education of beneficiaries.

Table 1: Education level of respondents

| Education level | Frequency (number of respondents) | | | |
|-----------------------------|-----------------------------------|-----------------------|-----------------------|------------------------|
| | Kakonko | Kasulu | Kibondo | Total |
| Illiterate | 8 (4 women 4 men) | 9 (9 women; 0 men) | 7 (6 women; 1 men) | 24 (16 women; 8 men) |
| Primary education | 41 (26 women; 15 men) | 36 (20 women; 16 men) | 36 (23 women; 13 men) | 113 (69 women; 44 men) |
| Secondary education | 1 (male) | 5 (3 women; 2 men) | 6 (2 women; 4 men) | 12 (5 women; 7 men) |
| Collage certificate/diploma | 0 | 0 | 1 (0 women: 1 man) | 1 (man) |

Source: Project internal end term survey

5.2 Social economic characteristics

5.2.1 Sources of income of respondents

During the survey, the respondents were asked to list their current three main sources of incomes. The survey revealed that 47% (N = 71; 39 women; 32 men) of respondents are currently depending non horticultural crops only as their main source of income. One of the reasons provided by respondents was the cost of purchasing the improved agricultural inputs being high to re-invest to new project. The 20% (N = 30; 23 women; 7 men)) respondents reported to depend on the horticultural crops only as their main source of income. The produce which are mainly produced being tomatoes, Chinese, cucumber, eggplant, Chinese cabbage, okra, sweet pepper. The 9% (N = 13; 10 women; 3 men) of respondents reported to have three main sources of incomes: non horticultural and horticultural production. The 22% of respondents (N = 33 persons; 20 women; 13 men) are involved in 3 sources of income non horticultural, horticultural and business at the same time the survey found that all respondents were involved in agriculture as their main source of income compared to baseline survey whereby it was found that 6% of respondents were involved in non-farming activities. The integration of poultry production was not done effectively as proposed during baseline survey as very few respondents (almost negligible) reported to be engaged in poultry production.

The respondents were also asked their sources of income before intervention (project) start. It was found that 95% (N = 142; 86 women; 56 men) of respondents their main source of income was non-horticultural crops mainly maize, beans and cassava. Meaning that horticultural production was not given priority as the sources of income. Although more than half of respondents declared their income to be increased because of horticultural production. But throughout the project implementation sensitization has been done to ensure the farmers are well engaged into improved horticultural production which resulted to 30% (N = 43; 33 women; 10 men) respondents to be engaged into horticultural production. This was an achievement although still the work needs to be done to ensure that more producers are fully engaged into horticultural production to increase their income. To be more successful the horticultural production needs to be modernized.

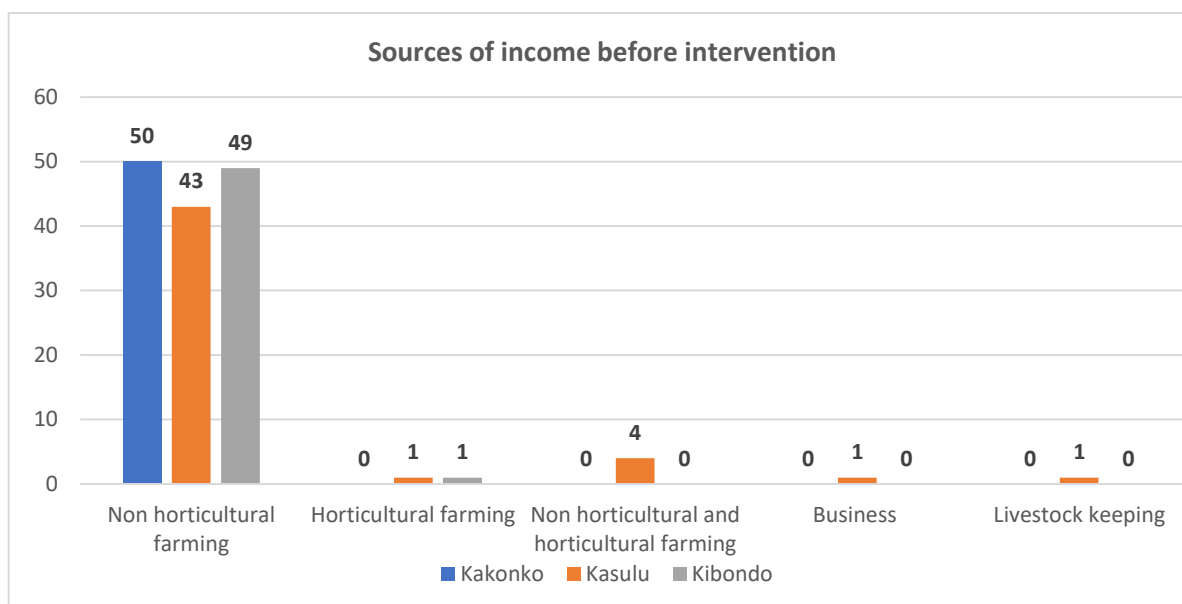


Figure 3: main sources of income before intervention (project start)

5.2.2 Number of micro investors accessing loan from their savings groups to invest in agriculture.

The indicator was captured by establishing how many members borrowed from their savings groups and what they spent their loans on. The intention was to compare if there was any improvement of members to borrow their savings and invest in agriculture as of the scope of the project. Volumes of the loans determine members' financial capacity to invest in drip irrigation kits and as well as purchase of other agricultural inputs.

Throughout project implementation the producers were sensitized to join VSLAs groups to enable them to borrow their savings to invest in agriculture mainly horticultural production. The respondents were asked if they were members of VSLA groups. The survey revealed that only 57% (N = 85; 53 women; 32 men) of respondents took loan from VSLA groups to invest in agricultural production especially horticultural farming. It was further realized that less than 50% (N = 15; 10 women, 5 men) of respondents in Kibondo took the loan to invest in horticultural production which call upon more sensitization to be done to improve the situation. The maximum amount of loan taken by respondents was TZS 500,000 which were taken by two respondents. The survey also revealed that 24 (12 women; 12 men) respondents which is 16% of respondents were able to take loan from TZS 100,000 to 500,000. The rate is the same as during the baseline survey whereby 16% of respondents were able to take a loan which ranges between TZS 200,001 – 500,000. The results indicated the need of linking the producers to other microfinance institutions as well as sensitizing to take more loan from their VSLA groups and invest in horticultural production.

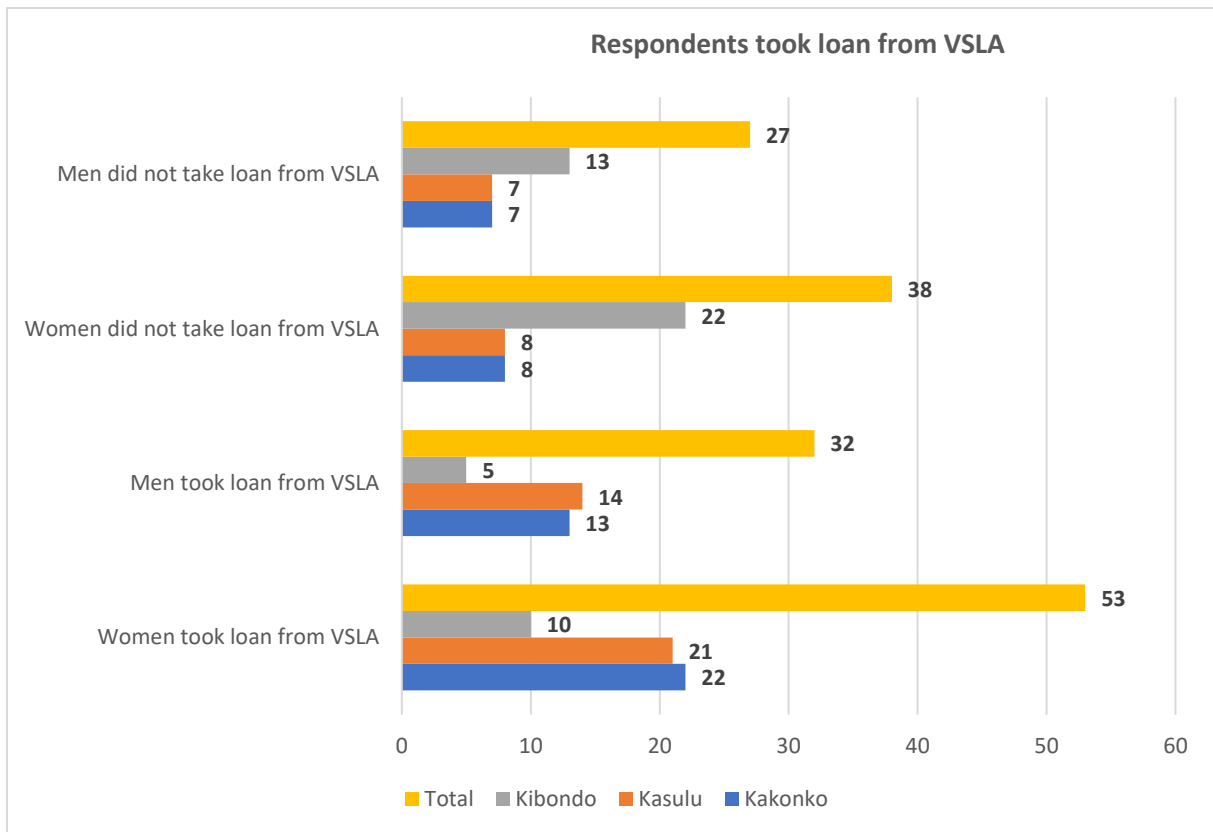


Figure 4: loan taken at VSLA groups.

The respondents who did not take loan to invest into horticultural production were asked to mention other sources of capital they had to invest into horticultural production. It was revealed that only 15 (8 women; 7 men) respondents they used their savings from other sources of income and sold other produce to invest in horticultural production. All of them were coming from Kasulu. The results indicates that the producers have no reliable source of capital to invest into horticultural production. Therefore, the survey results realized the need of doing sensitization to strengthen the VSLA groups and linkage to other microfinance institutions to be paramount.

5.2.3 The usage of loan by respondents

The respondents were asked how they spent their borrowed savings and also to identify if they have been investing in horticultural production as the main goal of the project. The results shown that 82% (N = 70; 42 women; 28 men) used the loan for agricultural related activities including purchasing of improved inputs; seeds. Fertilizers and pesticides). Only five respondents reported to use the loan for non-agricultural needs. There was a great improvement compared during the baseline study whereby only 32% of respondents invested their borrowed savings in agriculture. The level of interest of respondents to invest such loans in agricultural production was very important. This means that high interest in investing in agriculture provides a hint on potentials of such members to invest in fruit and vegetable production. During the end line survey, the 15 respondents reported to use the loan for non-agricultural needs. The results signify the need for producers to be trained on importance of farmers to invest in agriculture to increase the productivity. This is justified through the respondent's responses whereby 65% (N = 100; 65 women; 35 men) declared the horticultural production was a great help in their loan repayment. This call for the intervention to sensitize and engage more producers into horticultural production.

Community voice: One of from Kasulu district, Nyamyusi ward, Nyamyusi village reported; honestly, the vegetable production helps me a lot in my family as my income has increased, even my husband realized, and he was providing a great support to ensure the project is sustained. Before the project we used to buy the vegetables at markets which limit even our consumption rate. But I thank God now we just find the vegetables outside our homes, so the budget is also reduced, and we are sure of getting vegetables at any time.

5.2.4 Members of producer groups

To capture information on the existence of producer groups, the respondents were asked if they are belonged to (is a member of) any agricultural producer group. The survey revealed that 93% (N = 140; 86 women; 54 men) were members of producer groups. The rate has increased compared to baseline survey as only 18% of respondents were members. The increase was due to the sensitization throughout project implementation. Also, during the time of end line survey 39 producer groups with 513 beneficiaries (370 women; 143 men) were formed. This account for 41% of all beneficiaries (1250). The results indicated that more work need to be done to sensitize more beneficiaries to join the producer groups to benefit for various collective agricultural commercial linkages.

The respondents were further asked if they have benefited from joining those producer groups. It was reported by respondents that 91% (N = 136; 83 women; 53 men) were not benefited from those producer groups. Only fourteen respondents reported to benefit from those groups. The reasons reported were purchasing agricultural inputs and searching for markets were not collectively done. The results call upon the project to clearly define the scope and intended objectives for the formed group. This need to be clear to all producer groups members.

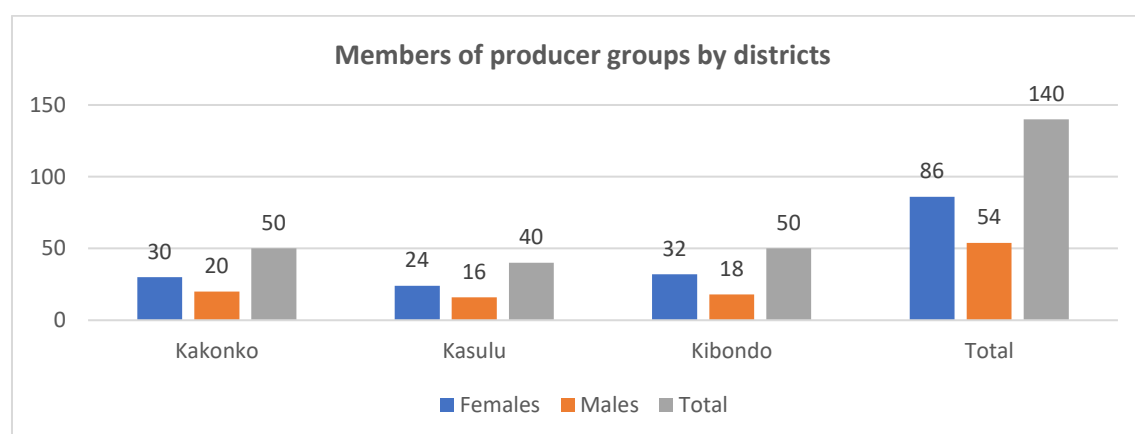


Figure 5: members of producer groups by districts

5.3 Project relevance and sustainability

Project relevance refers to extent to which the project objectives and design responds to beneficiaries and other stakeholders needs and priorities. The relevance assessment answers several questions including, do you feel that your income status has changed since joining the project? The survey revealed that 100% of respondents said their income has been increased due to project. Given the short period of the project this has been a great achievement. During the baseline survey respondents reported the vegetable production to high during the rainy season only. But after coming of the project, shortage of water resulted the number of months to remain the same, although the producers were able to produce the horticultural crops even in the upper lands particularly at home settings. But was further reported during the baseline survey that only those who had access to water and land in the lower areas. Therefore, the initiation of the project with the

irrigation kits innovation led to great changes to the life of beneficiaries. This indicates that there is a need to sustain this project for more results to be more realized.

One of respondent from Kasulu district, Nyamyusi ward, Kitema village called Agness Daudi, said since the beginning of the project my life has significantly changed as I can now access the vegetables at any time, I wish if the project could subsidize the costs of agricultural inputs especially seeds, pesticides and more important the drip irrigation kits. For doing so we could even expand my plot and purchasing more kits

To identify the diversity of horticultural grown, the respondents were asked to mention the crops they had grown in the last season. The following crops have been grown in the last season; Chinese cabbage, cucumber, tomatoes, Chinese, African eggplants, carrot, sweet pepper, spinach, ladies’ fingers. The top grown crops were Chinese cabbage, cucumber, and African eggplant. The survey revealed that the horticultural production has been mostly based on vegetable production only. But there is a need to sensitize the beneficiaries to focus also on fruit production as well. Some of the beneficiary commended to invest on fruit production so they need to be capacitated on this also. The new horticultural crops grown during the implementation of the project to beneficiaries were cale (collard), cucumber hybrid, tomatoes hybrid.

5.4 Number of micro investors

Micro investing “kit” that farmers invest in and become micro investors consist of the drip irrigation kits, quality seeds, fertilizers, and pesticides. The respondents were asked if they are still using the micro investing kits, their future on using them. They were further asked to share their experiences (importance) of using the drip irrigation kits and for those who are not willing to future using to share their concern as well. The respondents were further asked if they managed to buy more drip irrigation kits during the project period and for those who did not managed to purchase more kits were asked to share their experiences.

The survey found that 100% (N = 150; 91 women; 51 men) are still using drip irrigation and all of them have the plan to continue using them. This is a remarkable achievement compared during the start of the project. The baseline survey results showed that there is heavy reliance on rain for crop production. Even when irrigation is applied, this is done using watering cans. This type of irrigation is laborious and uses a lot of water. It is also not as efficient as other means such as drip irrigation. The respondents further share their experiences and importance of continuing use the drip irrigation technology. It was realized that 77% (N = 115; 69 women; 46 men) reported the drip irrigation technology to be sustainable method for getting the income as the technology is using little water for irrigation compared to can method. Three main reasons were shared as per table 2 below.

Table 2: Reasons for sustainable using of drip irrigation.

| | Simplifies work | | Sustainable horticultural production | | Financial sustainability | | Total | |
|-----------|-----------------|-----|--------------------------------------|-----|--------------------------|-----|-------|-----|
| Districts | Women | Men | Women | Men | Women | Men | Women | Men |
| Kakonko | 1 | 0 | 3 | 1 | 26 | 19 | 30 | 20 |
| Kasulu | 9 | 8 | 9 | 4 | 11 | 9 | 29 | 21 |

| | | | | | | | | |
|---------|----|---|----|---|----|----|----|----|
| Kibondo | 0 | 0 | 0 | 0 | 32 | 18 | 32 | 18 |
| Total | 10 | 8 | 12 | 5 | 69 | 46 | 91 | 59 |

Source: Project end term survey

To realize if micro investors had the interest of sustaining the use of drip irrigation for sustainable horticultural production. The respondents were asked if they purchased more drip irrigation kits throughout project implementation. The survey revealed that 79% (N= 118;71 females; 47 males) of respondents purchased one to two more irrigation kits during the previous seasons. Though during the interview sessions, most of respondents requested the costs for the drip irrigation kits to be lowed as they cannot afford the price. This calls for the project and the government to subsidize the agricultural inputs specifically irrigation kits for efficient and sustainable production.

One of the respondents called Dickrack Fredrick Daniel from Murufyiti village narrated the drip irrigation technology is fantastic, saves time and energy, now I am able to continue with other task after setting the drip irrigation to my garden. But I will appreciate if the price of the drip irrigation kits could be lowed, I wish to expand more land specifically for vegetable production. But I can not afford the price of the drips to facilitate the irrigation.

As part of micro investment strategy respondents were asked if are using improved agricultural inputs (seeds, fertilizers, and pesticides). The survey revealed that 100% of respondents reported to use improved agricultural inputs including seeds, fertilizers, and pesticides. The surveyors further asked if respondents have a plan of continue using the agricultural inputs even after funding end. It was also realizing that 100% of respondents had that plan. This is the great achievement of the compared to results of baseline survey as shown in table 3 below.

Table 3: Rate of using improved agricultural inputs during baseline survey.

| Inputs commonly used | Percentage (%) |
|------------------------|----------------|
| Recycled seeds | 33 |
| Organic fertilizers | 20 |
| Industrial fertilizers | 17 |
| Industrial pesticides | 12 |
| Hybrid seeds | 11 |
| Open pollinated seeds | 4 |
| Organic pesticides | 3 |
| None | 0 |
| Total | 100 |

Source: baseline survey, 2020

5.7 Respondents with mobile phone for accessing agricultural information and COVID – 19 prevention measures.

One of the project strategies was to provide the beneficiaries with the messages on how to improve productivity as well as messages concerning COVID – 19 prevention. The respondents were asked if they have mobile phones and type of phones to identify if they can receive those messages. The survey revealed that 94% (N = 141; 84 women; 57 men) of respondents had mobile phone for accessing the messages of improving productivity as well as COVID – 19 messages. Was further found that 76% (N = 114; 67 women; 47 men) had featured phone while 27 (17 women; 10 men) had smart phone. Only 4 respondents had no phones. The results indicated that almost all farmers can receive agricultural extension services through mobile phones. During interview sessions some of respondents reported to document all important messages they received through their mobile

phones in their textbooks and use/practise them to increase productivity. This is a good lesson for all farmers to use this innovative idea of documentation for future use of information. During baseline survey this information was not collected.

5.8 Farmers received agricultural related training through E-Learning and E-Extension

The survey aimed at capturing the number of farmers receiving training through digital means to complement the service provided by extension workers such as agronomists. The respondents were asked whether they have been receiving the trainings on improving agricultural practises through video and tablets. The results show that 90% (N = 135; 80 women; 55 men) of respondents received the e learning training on improving agricultural practises to complement the work done by six employed Agronomists. This felt the gap identified during the baseline survey whereby it was realized that farmers depended on self-acquired knowledge of agriculture. Which resulted into lacking modern agricultural techniques which eventually lead to low productivity and so poverty. The project also worked with tech partner – esoko to increase knowledge of modern agriculture through SMS, videos, and written content (JamboMaisha.Life digital platform).

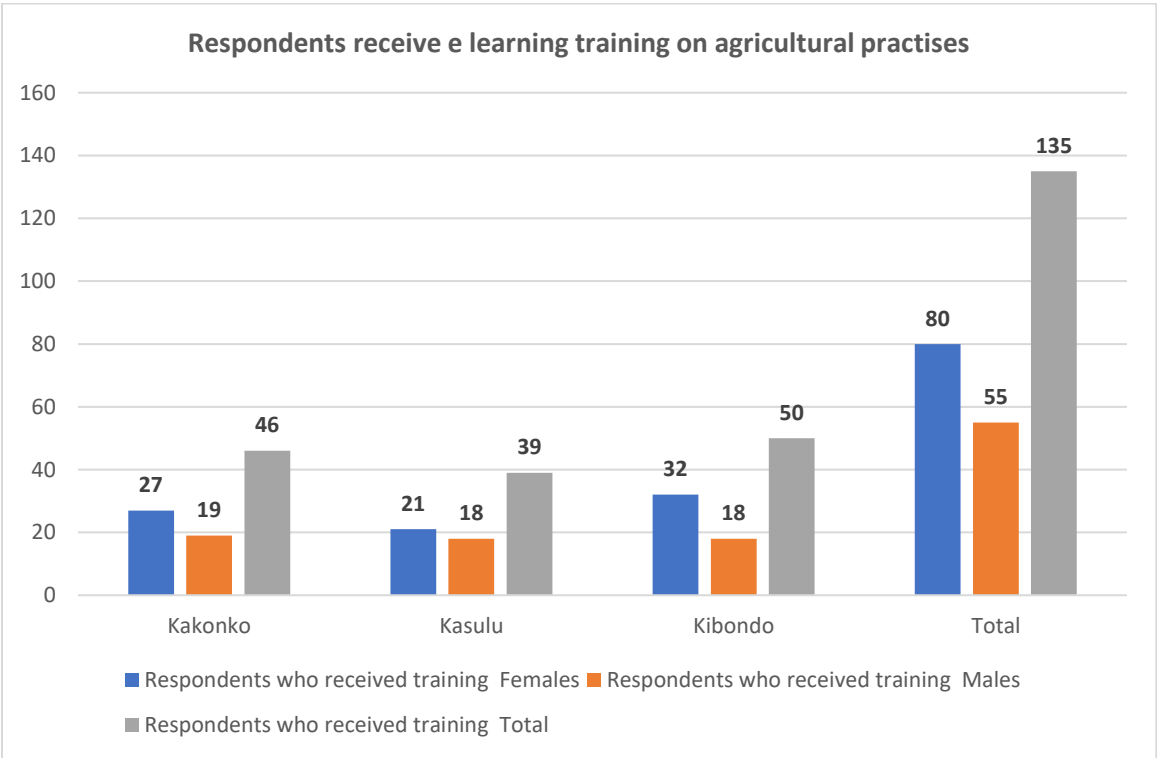


Figure 5: Farmers received e learning training on agricultural practises.

5.9 Farmers benefits from using agricultural commercial linkages.

One of the objectives of having producer groups was to ensure that there is collective action among farmers. Collective action is important to facilitate smooth linkage of farmers to commercial service providers. The linkages facilitate the agricultural inputs to be purchased at minimum prices (discounts) as well as selling their produces at reasonable negotiable prices. To identify if respondents were benefited from agricultural commercial linkages, respondents were asked if they have been linked to agricultural commercial linkages including purchasing inputs, selling produces, and trained collectively. Results show that 73% (N = 110; 67 women; 43 men) of respondents reported to be benefited from commercial linkages to service providers. Comparing to baseline

information achievement has been realized on farmers to be trained collectively, but in terms of collective purchasing of agricultural inputs and selling of produce, the project needs to strategize on how to strengthen it.

Less achievement has been observed in Kasulu districts whereby only 11 respondents (6 women; 5 men) reported to benefit from agricultural commercial linkages. If the project continues, follow up and strategies need to be done on strengthening the linkages particularly in Kasulu district. Though the results indicated there was great achievement, but this was mainly based on collective training only, the gap has been observed on collective purchasing of agricultural inputs and selling of the produce. This was revealed during conversation with respondents during the interview sessions.

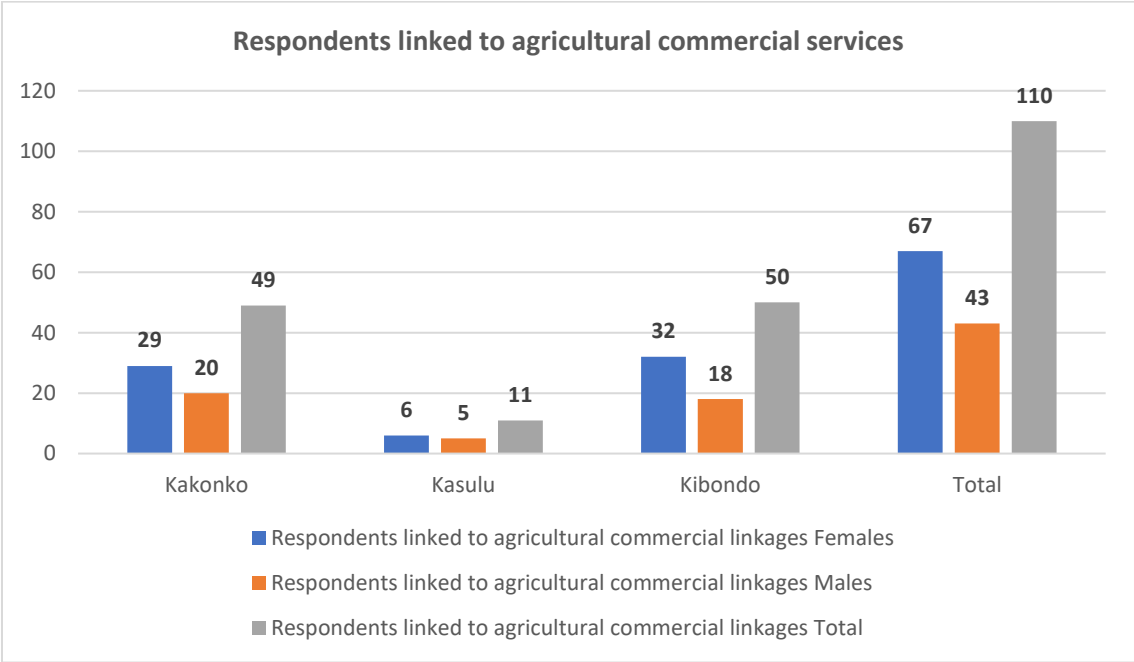


Figure 6: Respondents linked to agricultural commercial linkages.

6.0 Project cross cutting issues.

6.1 Household accessibility and consumption of fruits and vegetables

Fruits and vegetables are great sources of vitamins and minerals, you will not find a better nutritional source than fruits and veggies, which are packed with vitamins A, C and E, as well as magnesium, zinc, phosphorus, potassium, and folic acid. Most of fruits and veggies have plenty of fibre to fill you up and boost gut health, they are low calorie and low-fat means can be eaten more to keep feeling fully without worrying about extra calories or fat. They also protect against cancer and other non-communicable diseases. The end term survey intended to measure access to and consumption of variety of fruits and vegetables at household level for improved nutrition. Three questions were asked with the aim of capturing access to fruits and vegetables throughout the year, frequency of consumption of fruits and vegetables as well as the diversity of fruits and vegetables consumed.

The survey revealed that most of respondents 56% (N = 84) had adequate access to fruits and vegetables for only four to six months annually which are rainy seasons. The results are the same as during the baseline survey as it was revealed that most of respondents had adequate fruits and veggies four to six months annually. The respondents were further reported that shortage of water in most parts of the villages contributed to the results. They requested the project to be integrated with

water projects for the sustainable availability of fruits and veggies for improved nutrition and income.

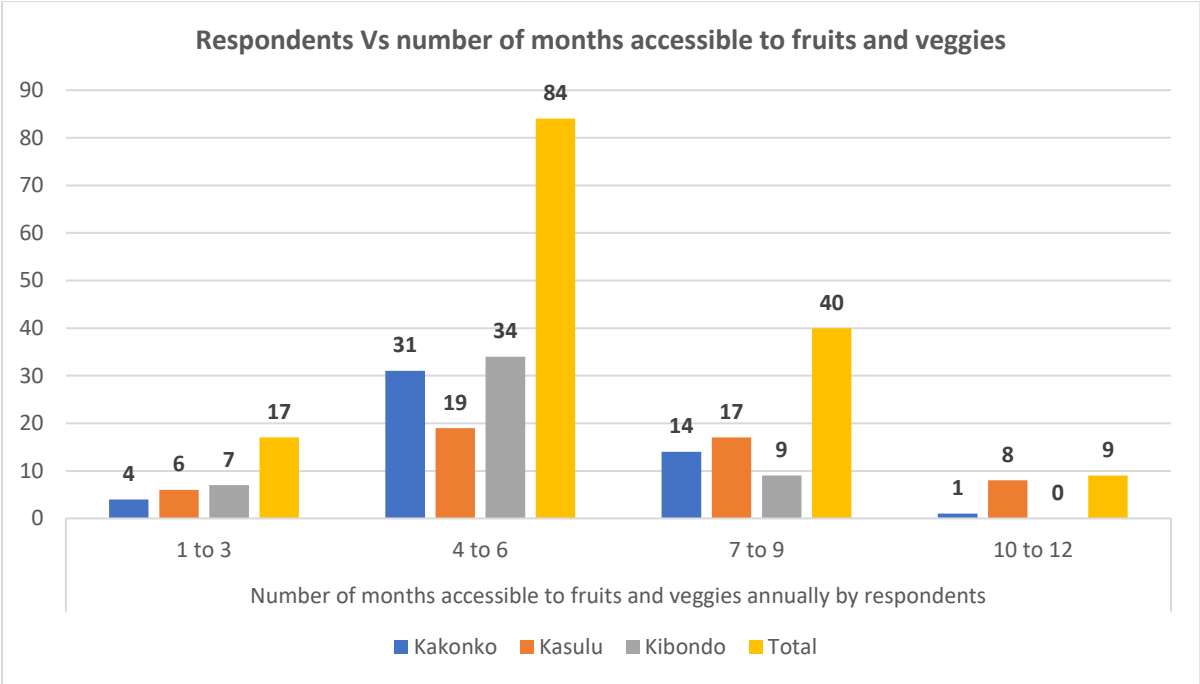


Figure 7: Respondent Vs number of months accessible to fruits and veggies

The respondents were also asked on the frequency of consumption of fruits and vegetables in a week. Results show that only 53% (N = 80; 49 women; 31 men) consumed the fruits and vegetables on daily basis which as per recommendable nutrition requirements. No household reported not to consume the fruits and vegetables. This is slight improvement compared to baseline survey whereby most families consumed fruits and vegetables several times in a week. Apart from this improvement but still work need to be done to ensure that all the households are consuming the fruits and vegetables on daily basis as recommended. This could be achieved through linking the producer groups with Nutritionist for nutrition education.

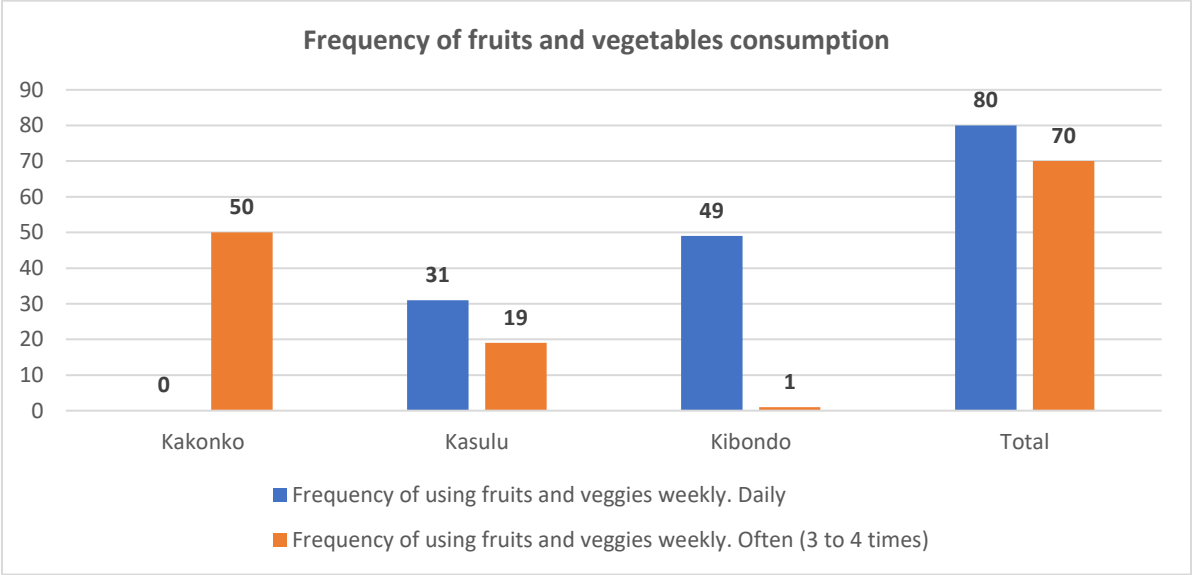


Figure 8: Frequency of fruits and vegetables consumption

The last question for this indicator asked if these families consume several types of fruits and vegetables in a week. The aim here is to establish dietary diversity, specifically for different types of fruits and vegetables, which have different nutritional values (content and quantities). The survey revealed that only 47% (N = 71) of respondents were aware on the importance and consumed variety of fruits and vegetables during the project period. No improvement has been observed on dietary diversity compared during baseline survey whereby 59% of respondents reported to consume variety of fruits and vegetables. The results call upon the future programming to ensure effective nutrition education to producers. Also, the survey revealed the need of nutrition education to all districts as shown in figure 9 below.

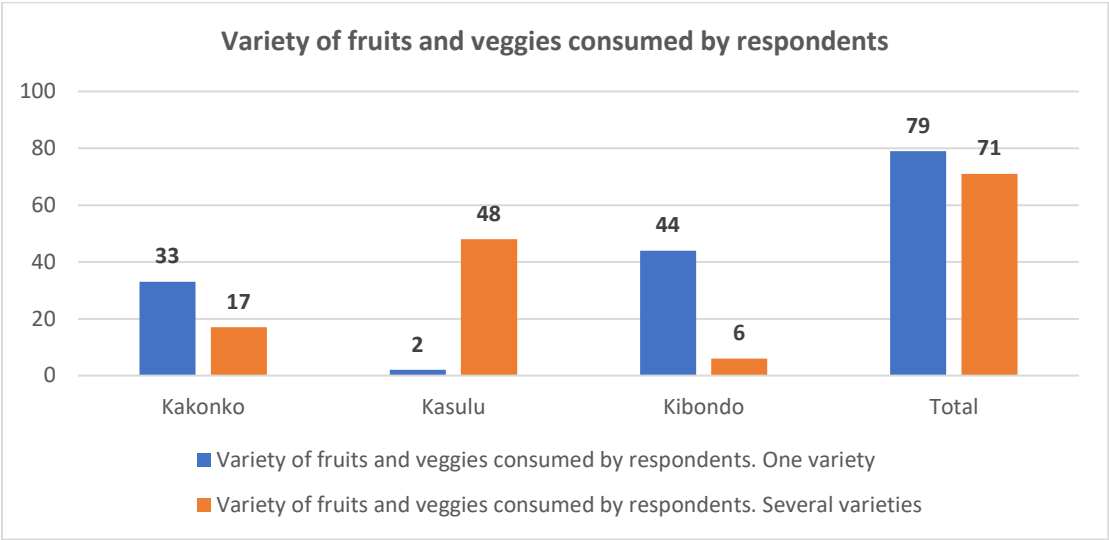


Figure 9: Variety of fruits and veggies consumed by respondents.

6.2 Access to sanitary towels for women (Cross-cutting on mensural hygiene management)

The women respondents were asked if they had access to re-usable sanitary towels to establish the level of menstrual hygiene management. All respondents 100% (N = 91) reported to access the reusable sanitary pads and declared to their menstrual hygiene management has much improved their participation in economic activities and build their self-esteem and confidence. This is the great improvement compared to baseline survey whereby only 12% of respondents reported to have access to affordable and reusable pads/towels. Reusable sanitary pads provide security and safety for women during menstruation days for more than 12 months.

7.0 Sustainability prospects

The prospects for sustainability in the context of Women and Youth Economic Empowerment (YWEE) project has been plan since the beginning of the project. To get the insight of strategies used for the project sustainability, the Agronomist were asked to share how did they strategized to ensure that the project is sustained after funding period. The following were strategies.

7.1 Establishing beneficiaries’ groups- and linkages.

The Agronomists successful facilitated the creating of beneficiary’s groups and train them on good agricultural practises to improve productivity. By the time when the evaluation was conducted, the 39 producer groups with 513 (370 women; 143 men) beneficiaries were already formed, the work is in progress for forming more groups. The groups will continue to be linked to agricultural commercial

service providers so that even at the end of the project the farmers will be already established the good relationship with commercial service providers for continuing support.

7.2 Government engagement

Through out project implementation, the local government authorities were fully engaged since the launching of the project, implementation. Towards the end of the project the producer groups will be handled over to local government authorities to continue getting support from Extension Officers.

7.3 Training of beneficiaries

The project will continue providing the training on how to increase productivity to farmers so that at the project end the farmers could have knowledge to continue improving the agricultural practises for more productivity.

8. Lesson learnt.

- Formation of producer groups is one of the effective strategies of increasing income to producers as it opens the door for negotiable agricultural inputs and market opportunities.
- Project beneficiaries differ in terms of project perception and implementation due to illiteracy rate. Therefore, continuous capacity building to producers is vital for successful project.
- Practising good agricultural practises is a way of producing more yields hence high profitability even in a very small land (area).

9.0 Implementation challenges and recommendations

The YWEE faces some challenges as reported by beneficiaries, Agronomists and Project Management team. The respondents also shared the recommendations for future programming.

9.1 Implementation challenges

- High cost of improved agricultural inputs (seeds, pesticides, and fertilizers) and drip irrigation kits limit most of the farmers to expand their project. The 49% (N = 74; 40 women; 34 men) of respondents reported to face the challenge.
- Water and land were the key driving factors for engagement in production of vegetables. The proposed initiative targeted in solving both the land and water problems. Though the initiative was not success solved. The shortage of water in most of the areas limited the accessibility of horticultural crops especially during dry seasons.
- Most of the farmers did not wear safety gears during the pesticides application which is dangerous for their health.
- Unfavourable weather limited availability of horticultural crops throughout the year.
- In some areas was a challenge to get improved agricultural inputs.

9.2 Recommendations

9.2.1 Recommendations from beneficiaries

- Requested to get the agricultural inputs loans in terms of cash or goods and repay them after harvesting.
- The agricultural inputs to be subsidized.
- Proposed to increase the variety of horticultural crops especially fruit production.
- To increase supporting farmers on market accessibility if possible, in and beyond Tanzania

- Motivate farmers who are doing well one of the strategies they proposed is to take documentation and disseminate to various stakeholders and social media.
- To continue providing good agricultural practises education particularly in fruit production.
- To be trained on diseases management of the crops.

9.2.2 Recommendations from Agronomists

- Proposed the irrigation kits price to be reduced at least to TZS 5,000.
- The agricultural inputs prices to be reduced or subsidized.
- Strategize on how to improve marketing especially to horticultural crops.
- More training is needed on how to use drip irrigation as understanding capacity differs among farmers.

9.2.3 Recommendations from Project Management team (NCA)

- To do more sensitization and follow up to farmers to sustainably prioritizing growing horticultural crops. The survey revealed that 95% of respondents their main source of incomes is in non-horticultural crops.
- Effectively link the project beneficiaries to other stakeholders for other technical support especially on cross cutting issues of the project ie GBV, SRHR, VSLA, Nutrition and document the achievement in connection with project objectives.
- Identification of farmers role models for each district to be trained as Training of Trainers (TOT) so that they can disseminate the knowledge to other producers.
- Strengthening and document the linkage of producers to agricultural commercial service providers. This to be done by Agronomist in collaboration with government Extension workers and NCA.
- Link producers to other microfinance institutions to getting loan to invest in horticultural production.
- YWEE beneficiaries should be different from other farmers by initiating/improving documentation. That is sensitization need to be done to ensure that all beneficiaries have textbooks to document the inputs (agricultural inputs) used against the profit. That is keeping records for the expenses and revenues.

10.0 Success/interesting stories from beneficiaries

A professional teacher who succeeded through vegetable production and mobilized People living with HIV and AIDS

During the interview at Kibondo district, Bitulana ward at Bitulana village the surveyors met with a young person "Goodluck John Sadock" aged 24 years old, not married. The community call him *Village Agent* due to the services he provided to his community. Hes started to narrate " *I really appreciate NCA because through its funding I successful managed to get various trainings on good agricultural practises to vegetables. Last year I managed to get a profit of TZS 94,500 though I had very small plot. This year I managed to increase the plot and buy more irrigation kits, so I am expecting to get more yields hence more profit. But also, I used the profit to pay the labourers for my house. Goodluck graduated at teachers collage in 2018 at Ndala teachers collage in Tabora region. But after graduation got a volunteer work at one of the secondary schools in Kibondo but he was not paid anything apart from TZS 500 for tea but was not paid every day. Between October to December 2020 Goodluck attended computer courses specialized in Microsoft word, excel and Microsoft power point at Malolengwa technical collage at Kibondo district at Nduta area. This is an added value to*

Goodluck continued to say; *I am so proud with the knowledge of good horticultural practises, secondly, I am also happy to get the opportunity to reach other people to teach them on good agricultural practises to increase productivity specifically People Living with HIV and AIDS being one of the vulnerable groups. In last year I managed to reach 11 community members living with HIV and AIDS. Among them 7 (3 women; 4 men) are young people and 4 (2 women; 2 men) are adults. This project is very beneficial to People Living with HIV and AIDS as far as nutrition requirements are concerned. But also, is vital for increasing their income being one of the vulnerable group. Through vegetable production I also managed to complete my house.*

Goodluck requested the price of irrigation kits to be reduced so that more people could afford to buy and invest in horticultural production. He also requested an opportunity to sensitize his community on importance of horticultural production. He further narrated; *I am requesting that because I can speak three languages English, Swahili and Kiha, so I am able to reach even very remote communities who cannot speak Swahili.*

*Thank you so much!
Goodluck*



Picture of Goodluck's garden

A big achievement from a young Village Agent.

During the survey, the team met Adret Sebastian, aged 25 years old who is married but he has no children. Is a Village Agent from DRC. During the start of the project, he was involved in maize and beans production. Adret was elected to be an Agripreneur in the veggie project. Although he did not

start the production immediately, he saw great success in people he had mobilized. He decided to also start production of veggie by buying 10 irrigation which is equivalent to 4 beds. He planted Chinese cabbage in all 4 beds. After 60 days, Adret started harvesting. Each harvest per bed he sold vegetables worth TZS 5,000. Hence TZS 20,000 for all beds. He harvested once every week for a period of 2 months giving him TZS 150,000 as profit (less amount was used to buy inputs, shares, household expenses including food). Adret also used his revenue to pay for fees to attend training on soap making. He also used 73,000 and added some more from other savings to buy a smartphone for TZS 150,000. When the Chinese cabbage harvesting season ended, he realised the benefits and decided to buy 6 more beds which he has planted tomatoes. He has also mobilized 14 young people in his village and formed a group. They have prepared a farm equivalent to 0.5 acre to do collective production with his group. They have plan to grow tomatoes using drip irrigation with an extended system. He is motivated by low investment costs compared with high return. Adret says *“the project has helped me reach milestones had never dreamed of”*.

The survey team advised Adret to keep records of his expenses and revenues for future references.



Picture of Adret with his smart phone

11. Annexes

11.1 Questionnaires



Beneficiaries
questionnaire



Agronomist
questionnaire

11.2 Excel with coded data



Coded data

