**AFRICAN EGGPLANT VALUE CHAIN AND MARKET LINKAGE PROJECT FOR SUSTAINABLE ECONOMIC DEVELOPMENT OF FARMERS AT ULAYA VILLAGE IN KILOSA DISTRICT**

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**A PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREEE OF MASTER OF ARTS IN COMMUNITY ECONOMIC DEVELOPMENT OF THE OPEN UNIVERSITY OF TANZANIA**

**2018**

CERTIFICATION

The undersighned certifies that he has read and hereby recommends for acceptance a project titled; “African Eggplant Value Chain And Market Linkage Project for Sustainable Economic Development of Farmers at Ulaya Village in Kilosa District” in partial fulfillment of the requirements for the degree of Master of Community Economic Development of the Open University of Tanzania.

…………………….…………

Prof. Deus D. P. Ngaruko

(Supervisor)

…………………………

Date

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# DECLARATION

I, Daniel Marco Karenga Kirhima, hereby declare that this dissertation is my own original work and that it has not been presented and will not be presented to any other University for similar or any other Master degree award.

………………………………

Signature

……………………………..

Date

DEDICATION

This dissertation is dedicated to my beloved family members, my darling wife Upendo Millanzi, son Divinel and daughters Divana and Davina Daniel Kirhima for missing my care during my Masters programme and their encouragement in completing my studies.

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# ABSTRACT

This dissertation describes the potentialities of horticulture value chains and importance of linking its producers to competitive markets. The researcher and the community through STETIANA CBO have jointly implemented the “African Eggplant Value chain and Market linkage project” and it was noticed that improved horticulture value chain systems contributes towards improved economic wellbeing of smallholder farmers and their families. The researcher had to critically learn from literature reviews value chain and market linkage approaches to successfully implement the project. Among many the market linkage approaches includes building mutual trusts, strengthening bargain and market information powers between producers and buyers. More than 200 farmers are collectively benefiting from the project with capacity of weekly supply of 14 tons of eggplant produce to Dar es Salaam markets. Data were collected by interviewing farmers in households using structured questionnaires with closed ended questions as a main tool. The checklist questionnaires with open ended questions were also used for focus group discussions and key informant interview. Descriptive and frequencies analyses using SPSS were employed to describe the factors that contributed to the improvement of economic condition of small-scale horticulture farmers in Ulaya community of Kilosa District. Results revealed that among several options, the establishment of African eggplant value chain and market linkage project was ranked as priority for community economic development. Project monitoring and evaluation stages have shown the great impact of project towards the improved lives of small holder’s farmers.

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# LIST OF ABBREVIATIONS

AVMLP African Eggplant Value Chain and Market Linkage Project

AVRDC Asian Vegetable Research and Development Center

CAN Community Need Assessment

CAADP Comprehensive Africa Agriculture Development Programme

CBO Community Based Organization

CED Community Economic Development

CSO Civil Society Organization

DED District Executive Director

EAGT Evangelical Assembly of God in Tanzania

EC European Commission

ELCT Evangelical Lutheran Church in Tanzania

FAO Food and Agriculture Organization

FGD Focus Group Discussion

FYDP Five Year Development Plan

GDP Gross Domestic Product

GSDG Global Sustainable Development Goals

HBS Household Budget Survey

HODECT Horticultural Development Council of Tanzania

IGA Income Generation Activities

LGA Local Government Authority

LMF Local Market Facilitator

MCED Masters in Community Economic Development

M&E Monitoring and Evaluation

MKUKUTAII MpangoWaPili Wa KukuzaUchumi Na KuondoaUmaskini Tanzania

MOV Means of Verification

MVIWATA Muungano WaVikundiVyaWakulima Tanzania

NESA Neema and Sayuni Group

NGO Non-Governmental Organization

NSGRP National Strategy for Growth and Reduction of Poverty

OVI Objectively Verifiable Indicators

RC Roman Catholic

SACCOS Saving and Credit Cooperatives

SDSN Sustainable Development Solution Network

SIDO Small Industry Development Organization

SWOT Strengths, Weakness, Opportunities and Threats

TAG Tanzania Assembly of God

TAHA Tanzania Horticulture Association

URT United Republic of Tanzania

USAID United States Agency for International Development

VEO Village Executive Officer

# CHAPTER ONE

# PARTICIPATORY NEEDS ASSESSMENT

**1.1 Background Information**

Agriculture sector remain a very critical sector in Tanzania. It contributes to about 95% of the food consumed in the country, employs about 66.9% of the country’s population and contributes to about 26.7% of the GDP (Tanzania FYDP II 2016). The sector’s contribution to export earning is about 24% (CAADP, 2013). Although the sector has recently been overtaken by gold which has been outperformed by tourism as the top foreign exchange earner (World Bank, 2015), it remains the largest employer to majority of the population and food supply to the country. In addition, the sector is the main income generating activity to smallholder farmers who are striving to get out of extreme poverty. It is this significance that motivates consistent studies on how agriculture sector can be improved.

Nevertheless, for smallholder farmers to increase their income, they need to improve agriculture productivity together with identifying market for their farm produce. Otherwise, smallholder farmers need to diversify their activities, diversification have tremendous benefits to the lives of rural communities particularly in developing countries. The approach of diversifying economic activities can serve the community in increasing the household income (ILO, 2014). It is obvious that engaging in more than one business can act as insurance to the lives of low income earners. This risk kind of diversification is helpful in increase of income and hence poverty reduction.

The present study is to assess smallholder farmers’ eggplant value chain in Kilosa District through the establishment of African eggplant value chain and market linkage project. About 90% population farmers in Kilosa are engaging in agriculture production activities including livestock keeping. They both produce food and cash crops. Main food crops produced include maize, paddy and sweet potatoes; and among the major cash crop produced is the African eggplant (DED, Kilosa, 2016) other cash crops produced are sesame and pigeon peas. African Eggplant is one of the very important crop that contribute to the wellbeing of smallholder farmers through providing necessary nutrients to the diet while offering employment and hence income to the communities.

In Ulaya Village, farmers are more likely to be at risk because of low knowledge on commercial agriculture; value addition techniques, unreliable markets and they mostly depend on unreliable rainfall for agriculture. Despite being legitimized as a backbone of the country’s economy, agriculture does not satisfy the economic demand of most farmers because value addition is poor or in most of the time lacking quality and therefore the agricultural products fetch poor price in the market. Most farmers in the community sell agricultural harvest at a throw away price and ultimately they remain poor.

Transforming the community’s mindset from subsistence to commercial agriculture with consideration of promoting value chain has been vital for income generation and can ultimately reduce poverty among poor farmers. The LGA had just emphasized the theoretical improved farming but the farmers are not aware if the available agricultural productivity can be commercialized and transforms them into a wealthy state. However, this situation rendered the researcher to involve the community in looking for the possibility of establishing a project that could prosper peoples’ livelihoods at Ulaya Village. In trying to examine the community’s priorities, the researcher explored the farmers’ community needs of two groups with similar economic activities. The “STETIANA and NESA” groups’ members proposed the possible income generating project to be established from the lists of alternatives prioritized. Pairwise ranking was used to reach the common consensus of the most felt needs. The most felt need for the community was to have a better livelihood and the most prominent means identified that can reach them there was to deal with horticulture production and facilitation of market linkages for better price. The STETIANA CBO was selected as the executor of the project because of their strong unit, registration, holding bank account and their members being from across the whole village. Despite of their unity; the members are still living below the poverty line.

The need for strong value chain for horticulture crops and its market access were discussed during the key informant interview with Kilosa LGA officials both at district and ward levels. This was also revealed through household survey’s responses as critical need in the community. The community needs assessment exercise was participatory involving various methods of collecting data and information. The methods included the Household Survey; Focus Group Discussion; Key Informant Interviews; Desk Review and general observations of the needs. The collected information was valuable to both the researcher and the development partners in addressing the community needs identified.

* 1. **Community Profile**

The community needs assessment was done at Ulaya Village in Kilosa District. Kilosa is among of the districts in Morogoro Region. Ulaya Village is located alongside the main road to Mikumi National Park in the southern part of Kilosa district, about 39 Km from Kilosa town. It has total of 959 households with population of 3652 people; whereas the adult’s males were 782 and 752 were female. The population of under-18 children counted to 1080 males and 1038 females. Majority of the population is composed of children that accounts for 58% of the general (Census, 2012). The birthrate is 5.4 % per years. Majority of the village members are Sagara (90%) although there are also residents form different tribes.

Ulaya village has an estimate number of 500 horticulture farmers among them about 200 are African eggplant growers. The population of eggplant growers has increased day to day due to emerged high market demand in major towns specifically Dar es Salaam and Morogoro. This community of African eggplant growers is endowed with irrigable fertile land that is suitable for horticulture farming. They grow African eggplant individually but the members are from saving groups supported by different partners including World Vision, Care International and other NGOs. The average annual temperature in Kilosa is 28.5 °C and the average annual rainfall is 1194 mm (Kilosa District, profile, 2016).

* + 1. **Economic Activities**

Agriculture is a major economic activity in the community. The assessment showed that more than 90 percent of community members in the area engage in agriculture production for livelihood. The food crops produced includes maize, paddy and sweet potatoes while the major cash crops are varieties of horticulture crops, sesame and pigeon peas (DED, 2016). Livestock keeping is another economic activity of the community. According to National Livestock census (DED, 2016) Ulaya Village has a total of 82,949 livestock which includes 12,547 cattle, 4003 goats, 1,632 sheep, 57,448 chickens, 6,017 ducks, 6 donkeys and 41 pigs. The size of grazing land is 1804 hectares which is normally overgrazed due to less equivalency to the existing number of livestock. There has been a prevailing conflict between peasants and livestock keepers due to the fact that there are massive cattle influxes into the village that interrupt the native farming land. The community is not practicing dairy cow keeping and therefore there is a great deficiency of milk production in the area.

* + 1. **Community Social Structure and Services**

There are several social services observed in the community including health, education, security, communication, transportation infrastructures and services. The community members receive health services from Ulaya government dispensary which serves more than 20,000 people. According to 2016 data obtained from district (DED, 2016), it was revealed that malnutrition is a great concern evidenced by high stunting prevalence of 47.2 percent which in another way is contributed by low household income. The leading diseases for under-5 children at the area include the acute respiratory infection; malaria and diarrhea.

The community has one primary and secondary schools respectively which provide education services to the children. There are four churches which include RC, ELCT, EAGT, and TAG. On the other hand, the community has two mosques for Islamic faith practices. According to Ward records (2016) there are four operating NGOs in the communityincludes World Vision, Care international, Transect, and Farm Africa. Other community civil society organizations were 53 registered community groups, one registered SACCOS, and more than 50 unregistered local savings groups, all engaging in income generating activities such as petty business, lucrative farming, tailoring, food vendors, small shops, gang vegetable selling; motorcycle rides and crop selling.

Communication service providers include Airtel; VODACOM, and TIGO and therefore the communication among community members is not a barrier. They can access market and facilitate the process of economic development. The community also has a primary court for maintaining justice among people. Furthermore, transport networks have assured the community to easily transfer their agricultural and other products to the market because the roads are passable across the year despite weather changes.

* 1. **Community Needs Assessment**

The community needs assessment was conducted at Ulaya Village for the purpose of examining the needs and gaps pertaining economic development. The CNA further identified the available community assets and opportunities that could be used to establish income generation project to enhance sustainable economic development. It was conducted in the participatory manner whereby community members were involved as the focused beneficiaries in identifying the proposed project. Government officials and other partners were key informants interviewed for triangulating the data obtained through the household’s data collection questionnaire. During the assessment, the researcher used the proper collection techniques and methods to acquire the relevant data and information that would further be used for policy and decision making process in development planning.

* + 1. **Objectives CNA**

The CNA intended to collect data and information by assessing the community felt needs and associated critical problems that hinder the community economic development. Likewise, the CNA aimed at gathering the community’s perceptions toward establishing economically viable project that could be helpful in improving their economic status and reduce the burden of poverty.

* + - 1. **Overall Objectives**

The overall objective of this study is to determine the suitable project that can significantly contribute to the improvement of economic condition of small-scale horticulture farmers.

* + - 1. **Specific Objectives**

1. To examine the community’s economic activities carried-out in Ulaya village that contributes to household income.
2. To examine the possibility of establishing an economic development project in the community for sustainable livelihoods.
3. To assess the contribution of the established economic project into household social economic performance;
4. To determine the role played by different actors along market value chain.
   * 1. **CNA Questions**
5. What are the major economic activities carried-out in the community for life sustaining?
6. What are the annual earnings of the horticulture farmer household?
7. How does community engage in value addition process as a means of economic gain?
8. What are the reliable resources/assets and opportunities that can be used to generate income in the community?
9. What challenges do you think you may be encountering in your business or IGA?
10. Are there partners or institutions that have supported you in IGA?
11. What would be the changes to be brought about by the implementation of the eggplants promotion project in the area?
12. What are the social and economic benefits that have been accrued from the implementation of the intended project in the study area?
13. To what extent does the community needs have been addressed in the area?
    * 1. **Research Methodology**

The study was based on a standardized sequence order, in which it has determined the best method to conduct and finalize the research. It was necessary for researcher to use the simplest methods which were cost effective and time manageable in order to obtain the required relevant data and information. The researcher thought of manageable research design, sampling techniques, data collection methods and appropriate tools in-order to get the reliable data, assessing the community opinions, perceptions on establishing a viable and sustainable project for raising household income.

* + - 1. **Research Design**

The CNA used both quantitative and qualitative research design. Triangulation design was chosen because the study sought to draw the perception of people in Ulaya village concerning their economic status, availability of resources for horticulture value chain and market linkage project to increase the household incomes. For triangulating the findings, five key informants were interviewed including two NGO representatives and five government officers at village and district level. These government officials encompass the agriculture extension officers, district market officer, village leaders. Focus group discussion with NESA and STETIANA CBO members were also conducted to get explore more about value chain and market linkage promotion. In order to understand the phenomena, self-administered questionnaires were used to measure people’s economic status and establishing new project under their supervision.

The research targeted to survey the sample of 80 households. All targeted households were interviewed by using structured questionnaires. It also used the selection of study coverage that was easily reachable because it was not possible to cover the whole village as one does not need to eat the whole ox to be able to know it is tough (Bee, as cited in Mashindano, 2007 p.55). From five sub-villages of Ulaya Village; 80 sample respondents/households were selected for data survey and interview. At least 15 members were randomly selected from each sub village.

* + - 1. **Sampling Techniques**

The CNA study was conducted in five sub-villages of Ulaya Village in Kilosa District. The selection of sample size was done by using both probability and non-probability sampling techniques. Selection of eggplant community was done using purposive sampling techniques while the sub villages were selected using simple random sampling to get the sample size. Therefore, from five sub-villages, a sample size of 80 households was again systematically selected to represent the eggplant farmers and entrepreneurs.

In selecting the respondents, the attributes such as sex, age, occupation, education, household size and economic activities were considered. For focus group discussion, NESA and STETIANA groups were selected purposively as they were earmarked horticulture producers. This is also applied to key informants’ selection as the researcher wanted to learn more insights of value chain and market access from knowledgeable and professional personnel. The survey managed to cover all 80 earmarked households for interview. In this CNA, the sampled household focused on interviewing the heads of households and not otherwise. Bee (as cited in Kashuliza 2007, p. 56) defined a household as a group of family members who sleep within the same roof or compound, share a common source of food, and have a common source of income.

* + - 1. **Data Collection Methods**

The CNA obtained data and information through various methods. The CNA used the primary and secondary data and information. Primary data and information were collected through the combination of various methods including the household surveys, Focus Group Discussion, observation and key informant interviews. Both qualitative and quantitative data were collected to justify the community needs and priorities. Secondary data and information were obtained from different sources in the form of publications and official statistics or records. Much of these data were obtained from the offices of WEO, VEO, CBO and the district. Recorded information was very important to supplement the primary data which was obtained through questionnaires.

**Questionnaires:** The researcher has developed the structured questionnaires with closed questions were used during the household’s survey. The questionnaire was translated into Kiswahili language in order to make respondents understand the question and provide precise and relevant responses. The questionnaires were distributed to the respondents with ability to write and read but also those who were not unable to write were assisted by their fellow members. The researcher was assisted by four data enumerators who interviewed the selected heads of households using the administered questionnaires while also doing reconciliation on further ideas concerning the subject matter under assessment. The questionnaire is just a tool useful for collecting general overviews and community level of awareness, perceptions, attitudes and behaviours.

**Focus Group Discussion:** The researcher prepared a checklist of issues related to CNA objectives which was further used to guide the cross-sectional interviews. FGD were done by involving four CBO leaders and 21 NESA group members. The checklist with open ended questions was used for FGD to give the, respondents with an opportunity of answering and providing their feelings and perceptions on the life hardship and suggest ways to reduce poverty. The discussion also aimed at observing and determining the strengths and ability of the groups/CBO in establishing the sustainable project in the community.

**Key Informant Interview:** Key informant interview was necessary to find extra information on the possibility of establishing sustainable project in regards to horticulture value chain and market facilitation techniques. Interview were conducted with two value chain and market experts from Kilosa District to obtain more information about promotion of African eggplant value addition techniques and liaised with them if they can provide the technical support to the project. Further interview was made with three government officials at village level including the village agriculture extension, community development and village executive officers to grasp relevant information about favorable environment for initiating a viable project to increase income of horticulture’s farmers.

**Observation:** The researcher conducted physical observation on the available resources, strength and weakness of existing IGA groups/CBO. The researcher observed various categories of crops that can be used in the value chain project. Physical observation was made to the existing potential economic activities, opportunities like irrigable land, downstream water flows and already existing horticulture farmers especially the eggplant growers. It was observed that majority of the community members had poor life condition due to unreliable markets which forced farmers to sell their horticulture crops at low price and no initiatives started on agricultural value chain and market facilitation.

* + - 1. **Data Analysis Methods**

Both qualitative and quantitative techniques of data analysis were used in the study. Before data analysis, the researcher had to prepare SPSS 16.0 software template for data entry and analysis. The data was verified, edited, screened and entered into the SPSS database for analysis of quantitative data. Descriptive statistics such as percentage and frequencies were computed, these helped the researcher to present the findings in forms of tables and charts and being able to interpret them for decision making process. The information collected from FGD and key informants were also analyzed based on their perspectives, opinions and understanding on value chain and market facilitation. Data triangulation was done by using results from qualitative and quantitative. According to Kanbur (2001) there is a growing recognition that sensible combination of both quantitative and qualitative methods helps to solve the problems that are associated with each type of method taken independently. However some authors argue qualitative technique is more appropriate for capturing the social and institutional context of people’s lives than the quantitative techniques (Booth el. al, 1998).

* 1. **Community Needs Assessment Findings**

Data analysis was successfully completed and the researcher presented the findings based on the identified variables in forms of table and figures. It was possible for the researcher to discuss and interpret the findings in form of giving statements regarding the trends and patterns of statistical data and information obtained through SPSS 16.0 program. The discussions were as follows in below subtitles.

* + 1. **Respondent Demographic Information**

The respondent’s demographic information included sex, age, occupation, education level and the size of household. These particulars have a meaning and implications when dealing with people’s behaviours and attitudes in bringing economic transformation for community welfare.

* + - 1. **Sex of Respondents**

The Table 1.1 shows the distribution of respondents by sex. Based on the results, 48.8 percent interviewed were males and 51.2 percent were female. This showed that the survey has covered both sexes nearly equal and there were no gender bias.

Table 1.1: Sex of the Respondent

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| --- | --- | --- | --- | --- | --- |
| Valid | Male | 39 | 48.8 | 48.8 | 48.8 |
| Female | 41 | 51.2 | 51.2 | 100.0 |
| Total | 80 | 100.0 | 100.0 |  |

**Source**: CAN study in Ulaya Village, 2016.

* + - 1. **Age of Respondents**

As per table 1.2, the age distribution of respondents indicated that a large number of people fall under active population with the age group between 46-55 years old leading other groups which counted to 27.5 percent which was followed nearly by 21.2 percent of respondents with age group between 36-45 years old. Those with age ranging between 26-35 years of age counted to 18.8 percent and followed nearly by those with age ranging between 56-65 years with 16.2 percent. From this finding it is revealed that there is no big significant age distribution of the respondents from category one to four. In contrary, the different distribution was realized in the category six of age groups which counted to 2.5 percent.

Table 1.2: Age of the Respondent

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 15-25 | 11 | 13.8 | 13.8 | 13.8 |
|  | 26-35 | 15 | 18.8 | 18.8 | 32.5 |
|  | 36-45 | 17 | 21.2 | 21.2 | 53.8 |
|  | 46-55 | 22 | 27.5 | 27.5 | 81.2 |
|  | 56-65 | 13 | 16.2 | 16.2 | 97.5 |
|  | Above 65+ | 2 | 2.5 | 2.5 | 100.0 |
|  | Total | 80 | 100.0 | 100.0 |  |

**Source**: CNA findings in Ulaya, 2016

* + - 1. **Occupation of Respondents**

Table 1.3 shows the occupations of the respondents in the study area. The majority of the total populations were farmers which counted to 73.8 percent. This is because the village is situated in the rural setting as majority of its people depends on agriculture for life sustenance. Of all population, 16.2 percent were livestock keepers while very few of them identify themselves as petty-businessmen and employed with 3.8 and 6.2 percent respectively.

Table 1.3: Respondents' Occupation

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| --- | --- | --- | --- | --- | --- |
| Valid | Farmer | 59 | 73.8 | 73.8 | 73.8 |
| Livestock keeper | 13 | 16.2 | 16.2 | 90.0 |
| Employed | 5 | 6.2 | 6.2 | 96.2 |
| Petty-business | 3 | 3.8 | 3.8 | 100.0 |
| Total | 80 | 100.0 | 100.0 |  |

**Source**: CNA Findings in Ulaya, 2016

* + - 1. **Average Size of Household**

The study in table 4 below reveals that 42.5 percent of the households have an average of number ranging 4-7 people in a household followed by those with number of people ranging between 1-3 people which are 37.5 percent. Those with a range of 8-10 people in a household count to 16.2 percent while those with more than 10 people in a household counted to 3.8 percent of all total households surveyed. According to Kilosa District profile (2016) the average size people per household was 5.4. This clearly indicates that in Ulaya Village, there is high birth rate with less consideration of family planning. This has great implication in terms of economic point of view as the number of dependents population (children) is likely surpassing those active one and hence less support and care is given to children.

Table 1.4: Average Household Size

| Size of household | | Frequency | Percent | Valid Percent | Cumulative Percent |
| --- | --- | --- | --- | --- | --- |
| Valid | 1-3 | 30 | 37.5 | 37.5 | 37.5 |
| 4-7 | 34 | 42.5 | 42.5 | 80.0 |
| 8-10 | 13 | 16.2 | 16.2 | 96.2 |
| Above 10+ | 3 | 3.8 | 3.8 | 100.0 |
| Total | 80 | 100.0 | 100.0 |  |

**Source**: CNA Findings in Ulaya, 2016

* + - 1. **Education Level**

It was also necessary to understand the level of education of the interviewed respondents. Table 1.5 indicates that 17.5 percentof the responded have never attended any formal schooling. This has informed the researcher that there is low level of education in the community where the study was conducted. Nearly half of the respondents surveyed which equals to 46.2 percent have the level of primary education and 22.5 percent of them have attained secondary education. Very few of them have vocational and collage education level with 5 percent both. From the level of education, the researcher can be in the position to consider ways of involving the community during the project initiation, planning and implementation.

Table 1.5: Respondent’s Education Level

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| --- | --- | --- | --- | --- | --- |
| Valid | Not attended school | 14 | 17.5 | 17.5 | 17.5 |
| Elderly education program | 3 | 3.8 | 3.8 | 21.2 |
| Primary education | 37 | 46.2 | 46.2 | 67.5 |
| Secondary education | 18 | 22.5 | 22.5 | 90.0 |
| Vocation education | 4 | 5.0 | 5.0 | 95.0 |
| College education | 4 | 5.0 | 5.0 | 100.0 |
| Total | 80 | 100.0 | 100.0 |  |

**Source**: CNA findings in Ulaya Village, 2016

* + 1. **Findings on Economic Activities Performed in the Community**

Table 1.6: Economic Activities Undertaken in the Community

|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| --- | --- | --- | --- | --- | --- |
| Valid | Tailoring | 7 | 8.8 | 8.8 | 8.8 |
| Poultry | 31 | 38.8 | 38.8 | 47.5 |
| Horticulture | 26 | 32.5 | 32.5 | 80.0 |
| Horticulture Market Facilitation | 5 | 6.2 | 6.2 | 86.2 |
| Dairy cow for milk production. | 8 | 10.0 | 10.0 | 96.2 |
| Food vendor | 3 | 3.8 | 3.8 | 100.0 |
| Total | 80 | 100.0 | 100.0 |  |

**Source**: CNA Findings in Ulaya Village, 2016

Table 1.6 has identified four major economic activities performed in the area. The researcher tried to understand the proportion of respondents who were engaged in those activities. The finding indicates that 38.8 percent of respondents identifies chicken keeping as highly performing economic activities in the community. Nevertheless, 32.5 percent of them classify horticulture farming as an economic activity that contributed to household income. Other respondents has opted tailoring, dairy farming and food vending as their major economic activities.

* + - 1. **Crops Contributing to Household Income**

From the finding in table 7, it was realized that the crops grown that contributed to household income in the area included maize (67.5%), horticulture crops including African eggplant (16.2%), pigeon peas (10%) and simsim (6.2%). Despite of being endowed with fertile land and water resources,only few farmers as indicated above engaged in horticulture farming. Vegetable growing takes short time to harvest and provide regular income to households. This project focused on horticulture crop (African eggplant) value chain and market facilitation for sustainable economic development.

Table 1.7: The Crops that are Used in increasing Household Income

|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| --- | --- | --- | --- | --- | --- |
| Valid | Simsim | 5 | 6.2 | 6.2 | 6.2 |
| Maize | 54 | 67.5 | 67.5 | 73.8 |
| Horticulture | 13 | 16.2 | 16.2 | 90.0 |
| Pigeon peas | 8 | 10.0 | 10.0 | 100.0 |
| Total | 80 | 100.0 | 100.0 |  |

**Source**: CNA findings in Ulaya Village, 2016

* + - 1. **Household Income Assessment**

Since the project intended to improve the economic wellbeing of people, it was necessary to assess income per capita of the households in Ulaya community to get the benchmark of the project.

Table 1.8: Estimate Monthly Income of Respondents

| Income | | Frequency | Percent | Valid Percent | Cumulative Percent |
| --- | --- | --- | --- | --- | --- |
| Valid | Tsh <100,000 | 44 | 55.0 | 55.0 | 55.0 |
| Tsh 101,000-200,000 | 22 | 27.5 | 27.5 | 82.5 |
| Tsh 201,000-300,000 | 9 | 11.2 | 11.2 | 93.8 |
| Tsh 301,000-400,000 | 3 | 3.8 | 3.8 | 97.5 |
| Tsh 401,000-500,000 | 2 | 2.5 | 2.5 | 100.0 |
| Total | 80 | 100.0 | 100.0 |  |

**Source**: CNA Study in Ulaya Community, 2016

Table 1.8 shows monthly income distribution of respondents whereas majority (about 55 percent) of respondents lie below 100,000TZS followed by 27.5 percent of respondents with estimated monthly income between 101,000 – 200,000TZS. On the other hand, a small proportion (about 2.5%) was getting income between 401,000-500,000TZS. With this income status, it was recognized that people in the study area are living below poverty line of $1.25 per day.

* + 1. **Proposed Potential and Sustainable Business for Income Generation**

Some viable projects to be introduced in the community for raising the household income were thought of. For the proposed project of this research, community perceptions and opinions were collected concerning the potential and sustainable business for community economic development. The findings in table 1.9 below shows majority of respondents (40 percent) have shown their interest in horticulture value chain and market Access facilitation. Again, 37.5 percent of them where thinking of improved indigenous chicken for income generation while a small proportion opted various other income generating activities (as seen in Table 1.9).

Table 1.9: Potential and Sustainable Business for Income Generation

|  | Proposed project | Frequency | Percent | Valid Percent | Cumulative Percent |
| --- | --- | --- | --- | --- | --- |
| Valid | Tailoring | 7 | 8.8 | 8.8 | 8.8 |
| Poultry keeping | 30 | 37.5 | 37.5 | 46.2 |
| Horticulture Value chain and Market facilitation | 32 | 40.0 | 40.0 | 86.2 |
| Dairy cow for milk production. | 7 | 8.8 | 8.8 | 95.0 |
| Food vendor | 4 | 5.0 | 5.0 | 100.0 |
| Total | 80 | 100.0 | 100.0 |  |

**Source**: CNA household survey, 2016.

From Table 1.9 it was realized that the community need to be supported along the horticulture Value chain and Market facilitation towards improving their livelihoods. The researcher explored more on how horticulture value chain and market linkage has been contributing to the increased household income of farmers in Ulaya community.

* + - 1. **Market Linkages and Information**

Unreliable markets for agricultural products have been realized as a big gap causing low income to majority of rural farmers (SDSN, 2013). Table 1.10 below indicates that majority of respondents about 88.8 percent were selling their produces in the local market at village levels. Very few of them 1.2 percent had managed to sell their produce in the regional level markets. Again, 6.2 percent had sold their produce in the district level market and 3.8 percent of them sold out of the region

Table 1.10: Available Market for Agricultural Products

|  | Market Centers | Frequency | Percent | Valid Percent | Cumulative Percent |
| --- | --- | --- | --- | --- | --- |
| Valid | Village Market | 71 | 88.8 | 88.8 | 88.8 |
| District Market | 5 | 6.2 | 6.2 | 95.0 |
| Regional Market | 1 | 1.2 | 1.2 | 96.2 |
| Market out of region | 3 | 3.8 | 3.8 | 100.0 |
| Total | 80 | 100.0 | 100.0 |  |

**Source**: CNA Study in Ulaya Community, 2016

According to survey done as indicated in Table 1.11, it was realized that about 67.5 percent of the respondents identified middlemen as the dominant buyers of farmer’s products. These middlemen do not provide room for market setting and negotiation between producers and buyers. Again 30 percent of the buyers were noticed as individual people in the study area who purchase and store for later trading. The blockage of market information flows from buyers in towns and cities hindered farmers to access market due to many predominant middlemen in the midst of producers and potential buyers. This indicated that most of farmers were not linked to potential buyers/markets for selling their produce and henceforth they have less power for prices setting and decision making process.

Table 1.11: Major Buyers of Agricultural Produces

|  | Buyers | Frequency | Percent | Valid Percent | Cumulative Percent |
| --- | --- | --- | --- | --- | --- |
| Valid | Middlemen | 54 | 67.5 | 67.5 | 67.5 |
| Individual customers | 24 | 30.0 | 30.0 | 97.5 |
| Private companies | 2 | 2.5 | 2.5 | 100.0 |
| Total | 80 | 100.0 | 100.0 |  |

**Source**: CNA Study in Ulaya Community, 2016

* + - 1. **Findings on Access to Market Information**

Majority of rural farmers are hindered by a lack of reliable market information and ultimate results is that their agricultural products fetch low price especially immediately after harvest periods. The table 1.12 below shows accessibility of market information by respondents whereas 45 percent of respondents were getting unrealistic market information from their neighbors. 26.2 percent used cellphones to access market information from nearby markets. While 21.2 percent accessed information through middle-men buyers who always hide those who accessed information on radio/TV about 6.2 percent hear information from different market sources in the country. From this finding it is asserted that most farmers in rural settings like in Ulaya lacks access to market information and hence could not negotiate for better price of their farm produces.

Table 1.12: Access to Market Information

| Source of market information | | Frequency | Percent | Valid Percent | Cumulative Percent |
| --- | --- | --- | --- | --- | --- |
| Valid | From neighbors | 36 | 45.0 | 45.0 | 45.0 |
| Phone Communication | 21 | 26.2 | 26.2 | 71.2 |
| Hears from middlemen | 17 | 21.2 | 21.2 | 92.5 |
| Radio/TV | 5 | 6.2 | 6.2 | 98.8 |
| Through Internet | 1 | 1.2 | 1.2 | 100.0 |
| Total | 80 | 100.0 | 100.0 |  |

**Source**: CNA Study, 2016

* + - 1. **Knowledge Gap Assessment in CED Project**

It was necessary to assess the knowledge gap of respondents for better understanding of capacities in implementation of the proposed project. From the findings in table 1.13, about 32.5 percent need savings and loan acquisition skills while 37.5 percent needed entrepreneurship skills so as to increase household income. Entrepreneurship skills have a pivotal role in promoting sustainable economic development (Muhammedsajjad et al, 2017) because it increases innovation and investment for economic development projects. It is proved that there is positive correlation between economic development, innovation and entrepreneurship (Muhammedsajjad, as cited in Guin K.K, 2017). Entrepreneurship not only creates large scale jobs thereby increasing the national income, but also functions as a bridge between innovation and the market (Muhammedsajjad, as cited in Barot D. H, 2017).

Access to markets is a challenge as most of the farmers fails to link their production with the market opportunities. As can be observed in the table 1.13 below, 21.2 percent of the respondents needed to be supported with market intelligent skills so that most farmers can access market information. For market competitiveness in the economy it is important to integrate value addition mechanisms in increasing quality products and market competitiveness in the economy. It is very critical to propagate knowledge on entrepreneurship to farmers and small business proprietors so as to increase income among the poor people especially farmers. Therefore the CED project has to consider farmers’ training and workshops on value chain and market literacy skills.

Table 1.13: Skills Needed to Increase Household Income

|  | Skills needed | Frequency | Percent | Valid Percent | Cumulative Percent |
| --- | --- | --- | --- | --- | --- |
| Valid | Investment | 7 | 8.8 | 8.8 | 8.8 |
| Saving and Loan | 26 | 32.5 | 32.5 | 41.2 |
| Entrepreneurship | 30 | 37.5 | 37.5 | 78.8 |
| Market intelligence | 17 | 21.2 | 21.2 | 100.0 |
| Total | 80 | 100.0 | 100.0 |  |

**Source**: CNA Study, 2016

* + - 1. **Finding on Capital Acquisition**

Table 1.14 below indicates sources of loan for both agricultural production and petty business in the area of study whereas those who asked for loan about 45 percent were obtaining credits from savings groups. It is also noticed that majority of respondents about 30 percent have never asked for loan from any source in their life. The project that will be drawn from this assessment should address this issue so that farmers and other petty business owners to be capacitated and encouraged to access loans from affordable financial institutions and local saving groups so that they can be able to increase capital for potential income generation activities. Very small proportion of them acquire loan from bank which count to 2.5 percent.

The finding also tells the researcher that 17.5 percent of respondents take loan from individual persons in the villages. During FGD session with STETIANA CBO members it was realized that the loan taken from the individual person do not have difficult procedures in acquisition but it is associated with high interest rate of up to 30 percent per month. Again, of those receiving loan from saving groups lacks knowledge of investment/enterprise development and therefore getting difficult in repaying the loan while also ending unrealized income earning activities.

Table 1.14: Source of Loan for Business Capital

|  | Source of loan | Frequency | Percent | Valid Percent | Cumulative Percent |
| --- | --- | --- | --- | --- | --- |
| Valid | Bank | 2 | 2.5 | 2.5 | 2.5 |
| Registered SACCOS | 4 | 5.0 | 5.0 | 7.5 |
| VSLA/Saving groups | 36 | 45.0 | 45.0 | 52.5 |
| Never taken a loan | 24 | 30.0 | 30.0 | 82.5 |
| Individual persons | 14 | 17.5 | 17.5 | 100.0 |
| Total | 80 | 100.0 | 100.0 |  |

**Source:** CNA Survey in Ulaya Village, 2016

* + - 1. **Decision Making Process in WEALTH Distribution**

This component was tracked through the FGD which describes decision making process in the household by gender whereas the knowledge on gender equality in household wealth distribution was of great importance. During focus group discussion the issue of gender inequality was identified as problem in the decision making process. According to FGD made it was revealed that women in families were identified as the major producers in the family and caregivers to children as compared to men. But when it comes to wealth distribution, the men have to control the wealth gain out of production and women ended demoralized as they do not enjoy the sweat of their workforces. The project has also addressed this challenge as one of the cross cutting themes in order to fill the gap of gender inequality.

* + 1. **Expected Outcomes of Proposed Projects**

Table 1.15: Expected Outcome of Thought Project by Respondent

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| --- | --- | --- | --- | --- | --- |
| Valid | Increased income and reduce poverty | 39 | 48.8 | 48.8 | 48.8 |
| Reduced dependency syndrome | 14 | 17.5 | 17.5 | 66.2 |
| Create employment | 14 | 17.5 | 17.5 | 83.8 |
| Afford social services | 13 | 16.2 | 16.2 | 100.0 |
| Total | 80 | 100.0 | 100.0 |  |

**Source**: CNA household survey, 2016.

Out of the proposed projects in table 1.15, the thoughts or feelings of the respondents on the expected outcomes of projects were drawn. The finding in table 10 below revealed that 48.8 percent of the respondents surveyed could feel increased income and poverty alleviation when opt a viable project in the community. On the other hand, 17.5 percent said that the established project would enable them reduce dependence syndrome and create employment respectively.16.2 percent thought of the project to afford social services and create employment opportunity in the low level income community. Therefore, there was a positive peoples’ thinking on established viable project for improved social economic wellbeing of farmers.

* + 1. **Finding on Potential Assets/Resources and Supports for established Project**
       1. **Potential Assets**

As indicated in table 1.16, it was necessary to understand the available resources that would contribute to the successful CED project. Of all the resources; 48.8 percent of surveyed respondents identified land as a major contributing factor to the expected project. The area is endowed with a fertile land that is suitable for commercial farming especially horticulture that fetches a lot of money for household income generation.

Table 1.16: Major Assets of Income Generation in the Household

| Major resources | | Frequency | Percent | Valid Percent | Cumulative Percent |
| --- | --- | --- | --- | --- | --- |
| Valid | Livestock | 24 | 30.0 | 30.0 | 30.0 |
| Land | 39 | 48.8 | 48.8 | 78.8 |
| Water | 11 | 13.8 | 13.8 | 92.5 |
| Forest | 6 | 7.5 | 7.5 | 100.0 |
| Total | 80 | 100.0 | 100.0 |  |

**Source:** CNA survey in Ulaya Village, 2016

Land as factor of production is followed by livestock whereby 30 percent said available kinds of livestock could contribute to initiate project. For horticulture production 13.8 percent of respondents declares that water availability enable farmers to conduct small scale irrigation and produce horticulture crop during the off season farming. The issue of concern here is that now production that is market driven for improved profitability and sustainable economic development among community members.

* + - 1. **Support Received from Government/Private Sectors**

Of all support needed 47.5 percent required skills on entrepreneurship to improve their economic wellbeing. Others needed support on loan acquisition (3.8%); infrastructure/instrument support (13.8%) though about 35 percent did not want any support from either government or private institutions as seen in Table 1.17.

Table 1.17: Type of Support Given by the Government/ Private Institutions

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| --- | --- | --- | --- | --- | --- |
| Valid | Provision of loans | 3 | 3.8 | 3.8 | 3.8 |
| Entrepreneurship skills | 38 | 47.5 | 47.5 | 51.2 |
| Instruments/infrastructures for strengthening production | 11 | 13.8 | 13.8 | 65.0 |
| Not applicable | 28 | 35.0 | 35.0 | 100.0 |
| Total | 80 | 100.0 | 100.0 |  |

**Source**: CNA Study in Ulaya Village, 2016

* + - 1. **Major Challenges Encountering CED Projects**

The finding from this assessment in table 1.18 below revealed that 47.5 percent were claiming of inadequate capital for production. On the other hand, 31.2 percent of households surveyed experience unreliable market for their produce while 21.2 percent lack entrepreneurship skills as encountering factor for low income and poverty in the study area of which the proposed project would require to address it. Conversely, during FGD the issue of unreliable market was discussed as one of the major challenges to sustainable commercial farming whereby farmers sells their agricultural produce at low price and eventually earning low income. More focus will be made on addressing the foresaid challenges through effective planning and strategies to improve farmer’s livelihood.

Table 1.18: Major Challenges in Production

|  | Challenges for CED project or IGA. | Frequency | Percent | Valid Percent | Cumulative Percent |
| --- | --- | --- | --- | --- | --- |
| Valid | Inadequate capital | 38 | 47.5 | 47.5 | 47.5 |
| Unreliable markets | 25 | 31.2 | 31.2 | 78.8 |
| Lacks entrepreneurship skills | 17 | 21.2 | 21.2 | 100.0 |
| Total | 80 | 100.0 | 100.0 |  |

**Source**: CNA Study in Ulaya Village, 2016

* + 1. **Selection of Host CBO to Implement the Project**

In liaising with community leaders; the researcher had to select the most active CBO in which when given the responsibility can manage the project. The researcher then has visited the earmarked top three CBOs namely STETIANA and NESA for implementing the project. After visiting them the researcher came to realize the most significant CBO to implement the project was STETIANA due to the following criteria;-

1. The group has a tendency of regular meetings for monitoring their business.
2. The group has a strong leadership and working team to manage the project.
3. STETIANA CBO has a revolving fund of Tsh. 8,000,000 and has the bank account to run their business.
4. All CBO members are directly engaging in agricultural production especially horticulture, practicing savings and credit activities.
5. The group members are eager to implement the project to impact the whole communities.
   * + 1. **Findings from Focus Group Discussion with STETIANA CBO**

The researcher took time to meet the STETIANA CBO for discussion on the possibility of establishing the suitable project in the Ulaya Village. The CBO has 17 members composed of 6 Females and 11 males. The CBO has been registered under the LGA with overall goal of improving the household income to alleviate poverty. To meet their goal they have been engaging in small scale farming and tree nursery for business while also diversifying their income through performing other economic activities such as beekeeping and petty business.

From their projects; they have managed to pay school fees for their children, afford to solve the mini life shocks, afford health services etc. Though they said that the project is profitable but they still feel inadequacy in attaining their basic needs. The members have received the technical support from government and World Vision Tanzania on the importance of working together as group. The challenges are that they lack entrepreneurship skills, lacks capital, support of working tools and lack market for their products. They are eager to start the projects that add value to their agricultural products to increase quality for market demand.

* 1. **Community Needs Prioritization**

The community in Ulaya Village through focus group discussion with NESA CBO members had resulted to list of needs in IGA. Addressing all needs is impossible due to lack of resources and therefore the community had to prioritize their needs in order to get the most felt need. The needs prioritization was done using a pairwise ranking as a vital tool for them to reach the common consensus of the most felt need. Through this tool, the agricultural crop value addition and market linkage became the leading proposed project whereas the second priority was crop selling, and the third being improved farming. Though the community has much interested in value addition and searching markets for their crops, the proposed project has also to deal with improved farming as the activities are interdepended to each other.



Figure 1.1: NESA Group Members Participating in the Prioritization Process of the Community Needs

* 1. **Chapter Conclusion**

Participatory assessment of community needs has paved the way and enabled the researcher to explore the community member’s opinions in establishing a viable project. This chapter one has focused on involving the Ulaya community in identifying their own needs and problems, root causes of the problem and existing potential assets and opportunities. The needs assessment was biased to examine the economic status of the residents whereas the findings have enabled the community to pinpoint top ranking problem that should be addressed in order to meet their needs.

Table 1.19: Community Needs Prioritization

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NEEDS | Beekeeping | Improved Agriculture | Crop selling/  business | Horticulture value chain and market access | Indigenous chicken business | Dairy cow keeping | Scores | Position |
| Beekeeping |  | Improved Agriculture | Crop selling/ business | Horticulture value chain and market access | Indigenous chicken business | Dairy cow keeping | 2 | 7.5 |
| Improved Agriculture | Improved agriculture |  | Crop selling/ business | Horticulture value chain and market access | Improved agriculture | Dairy cow keeping | 5 | 3.5 |
| Crop selling/business | Crop selling/ business | Crop selling / business |  | Horticulture value chain and market access | Indigenous chicken business | Crop selling/ business | 5 | 2 |
| Horticulture value chain and market access | Horticulture value chain and market access | Horticulture value chain and market access | Horticulture value chain and market access |  | Horticulture value chain and market access | Horticulture value chain and market access | 8 | 1 |
| Indigenous chicken keeping | Indigenous chicken keeping | Improved agriculture | Crop selling/ business | Horticulture value chain and market access |  | Dairy cow keeping | 3 | 5 |
| Dairy cow keeping | Dairy cow keeping | Improved agriculture | Crop selling/ business | Horticulture value chain and market access | Dairy cow keeping |  | 6 | 3.5 |

**Source**: CNA Findings in Ulaya Village, 2016

Both income and non-income poverty have been recognized as a major concerns in the area of study. From this study, the Ulaya Village members have realized that lack of horticulture value chain and market linkages were the major root causes of low income and poverty to rural farmers. Based on these findings, the community members have jointly agreed to establish the “African Eggplant value chain and market linkage project -AVMLP” that will contribute towards improvement of sustainable household income. The researcher involved the community in setting their expected project goal, objectives and outcomes that will meet their needs.

# CHAPTER TWO

# PROBLEM IDENTIFICATION

**2.1 Background to Research Problem**

This chapter identifies the main problem among many options during the participatory need assessment. According to NSGRP II Tanzania has realized significant decline in income poverty from 34.4 percent in 2006, to 28.2 percent by 2012 (World Bank, 2015) and from 28.2 percent recorded in 2011/12 to 16.7 percent in 2016 (FYDP II, 2016). During the same period, extreme poverty also decreased from 11.7% to 9.7% (HBS 2007 and 2011/12). The decline in poverty has in the rural areas been slower compared to urban area (World Bank, 2015, p.3). When compared with the national population growth rate of 2.9 percent, the reality is that the change in rural per capita income becomes small, thus perpetuating poverty in rural (NSGRP II 2010, p. 5).

The Global Sustainable Development Goal (1) envisioned to end poverty in all its forms everywhere that by 2030 reduces at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions. The Tanzania Vision 2025 aims at achieving a high quality livelihood for its people and attains good governance through the rule of law and develops a strong and competitive economy. Being a backbone economy of rural community, agriculture production has not focused on value chain and reliable markets promotion.

The National Strategy for Growth and Reduction of Poverty (MKUKUTA II) had given high priority in eradicating extreme poverty and promoting broad-based growth. However, to support the NSGRP II towards the GSDG 2030 it was realized that there was a need to conduct the community participatory assessment which abetted them to identify gaps along the value chain and plan for solutions. From the community need assessment findings, low household income was identified as the focal problem because majority (about 55 percent) of respondents interviewed had monthly income below 100,000TZS, even when mixed with those earning monthly income between 101,000 – 200,000Tsh (27.5%),

Based on average size of 5.4 per household (Kilosa District Profile, 2016) the calculated daily earning per person in a household was $0.5487 implying that more than 82.5 percent lived below the poverty line $1.25 a day. based on this focal problem, the researcher invited the STETIANA CBO and horticulture representative group members to the meeting for identifying the root caused and associated effects to the lives of the people in Ulaya community. Table 2.1 shows the identified problem with its cause-effect relationships as analysed from the CNA reports in chapter one.

The problem tree analysis was used as a tool to trace the root causes and effects of low household income of the community. The problem analysis includes (EC 2004, p. 67):

1. Definition of the framework and the subject of analysis;
2. Identification of problems faced by target groups and beneficiaries; and
3. Visualisation of the problems in form of a diagram, called “problem tree” to help analyse and clarify cause-effect relationships.

Table 20: Problem Tree Analysis

|  |  |  |
| --- | --- | --- |
| Focal problem | Root causes | Effects |
| Low household income of Africa Eggplant farmers in Ulaya community. | 1. Unreliable market; 2. Low knowledge on horticulture value chain and practices; 3. Unorganized group of farmers –individualism production and selling of crops; 4. Lack of entrepreneurship skills; 5. Lack of capital | 1. Families unable to support their children; 2. Malnutrition 3. Food insecurity 4. Poor growth of Community GDP; 5. Week social cohesion in wining market. |

**Source**: CNA Findings in Ulaya Village, 2016

* 1. **Problem Statement**

The horticulture sub-sector in Tanzania has grown significantly in the last decade, but by volume still represents a small part of the overall agriculture industry (HODEC, 2010). The sub-sector makes significant contribution to food security, nutrition improvements and economic growth (2010: p. 1). It is mainly practiced by small scale farmers who usually do their farming using poor technologies in small plots of land. Their production is as a result small and they run short of supplying markets with enough products. Whereas, the government and private sectors envisages promoting horticulture production in Tanzania including Ulaya village, eggplant smallholder farmers’ access to lucrative market has, to the contrary, been limited.

Despite of the growth in knowledge and efforts to improve value chain performance especially linking rural horticulture farmers to markets with focus to value chain systems, there is a knowledge gap on market access and horticulture value chain promotion among smallholder farmers. Most often efforts have been geared in promotion of a range of large group of horticulture crops limiting the capacity by the breadth and width of the tasks created by products numerousity. The issue of quality of most of agriculture produce has remained not-implemented written policies, strategies and treaties, hence jeopardizing profitable markets for horticulture outputs.

Other knowledge gaps are lack of market information sharing among and between African eggplant farmers and other actors along the value chain; farmers have been producing without knowing where to sell their farm produce. Almost all actors along the chain are unfamiliar with how to use value chain approaches to improve the eggplant value chain functioning. In Kilosa District less effort has been made to coach and mentor farmers through value chain approach. As a result households’ income is very low and poverty rates are high. It was, therefore, logical for the community to initiate and implement African eggplant value chain and market access interventions for sustainable economic development.

* 1. **Project Description**

The project name was “African-Eggplant Value Chain and Market Linkage Project (AVMLP)” for sustainable economic development of smallholder eggplant farmers in Ulaya village. It was located in Ulaya village that centre alongside Kilosa – Mikumi road. The location is very ideal because of its potential access to variousmarkets points such as markets in Morogoro and Dar es Salaam. The project goal was to contribute towards improved households’ income through African eggplant value chain promotion and market access among Ulaya community by June 2017.

To achieve this goal, the following objectives were derived; (a) Farmer’s knowledge on eggplant value chain is increased; (b) African eggplant producer’s access to markets is strengthened; (c) Increased volumes of eggplant produce aggregated for collective selling and (d) enhanced fostering of sustainability of project outcomes and activities through strengthening capacity of CBO leaders on transition strategic management and leadership skills by June 2017.

The project was implemented by STETIANA CBO. The identification of this CBO was done after consultation and discussion with key relevant stakeholders, as it happened to have economic base, attractive premise; excellent team work and team spirit, good leadership and some of its members had attended training on entrepreneurship skills and have more than nine years’ experience.

* + 1. **Target Community**

The target community is African eggplant smallholder farmers in Ulaya village. The study has shown that for the project to be successful and sustainable, African eggplant growers have to engage on value chain business and get linked to the market to better obtain good price. The direct project target beneficiaries include the individual horticulture farmers and group’s producers. STETIANA CBO leaders have been engaged as secondary beneficiaries in management of the project byensuring the quality of African eggplant produce -*“nyanya chungu”* in Swahili as value chain crop for high value market. The project also targets inputs suppliers, buyers and technical service providers as value chain actors whom in one way or another could benefit from the project.

In ensuring quality and market driven horticulture, the district horticulturalist and extension officers were built capacity on essential skills of horticulture value chain and approaches to link producers to markets. The district agriculture officer appointed the market specialist from department for continuously coaching and mentoring of small scale farmers to sustainably aggregate their produce to sufficiently supply the market requirements. This is possible through collective selling of horticulture produces (i.e. African-eggplant and Chill-papers) in the agreed point for collection and transporting to reliable markets in big cities like Kariakoo market in Dar es Salaam.

* + 1. **Project Stakeholders**

A successful project is the one that is implemented in a collaborative manner. In this context, therefore, the identified stakeholders for joint implementation of this project include: - STETIANA and NESA Community Based Organizations, World Vision Tanzania, Kilosa district agriculture department, Local financial institutions such as Saving groups and Banks. Others include Ward development officer, government extension officers at ward and village levels and horticulture farmers themselves. All of them have roles to play in contributing to the success of the project. Below (table 2.2) are the roles of each project stakeholder.

**Table 21: Project Stakeholders Analysis**

| **Name of the stakeholders** | **Role of the stakeholders** | **Expected outcomes** |
| --- | --- | --- |
| Kilosa Local LGA  (Agriculture department, Community Development, market unit) | 1. Provision of technical support to the STETIANA and NESA CBOs, 2. Capacity building to the CBO in terms of market skills, 3. Promotion of horticulture aggregation production through value chain techniques, 4. Create conducive policy environment for horticulture farming. | 1. Enhanced project sustainability; 2. Aggregated production for reliable market; 3. Increased number of horticulture farmers; and 4. Increased district income charged out of transported volume of horticulture produce; |
| Financial Institutions (Vision Fund, VICOBA) | 1. Provide soft loans to farmers. 2. Strengthen farmers on entrepreneurship and business skills. | 1. Farmers with financial capability; 2. Reliable capital for production |
| World Vision Tanzania | 1. Mobilize community into organized horticulture groups; 2. Facilitate training allowances and meals; 3. Support linkage of farmers to markets; and 4. Support leading farmers with exposure visits for learning. | 1. Increased farming skills among horticulture farmers 2. Well organized horticulture commercial groups; 3. Strong market access; and 4. Producers have shared learning and experiences from area of excellences. |
| Horticulture SHF | 1. Suppliers of horticulture produce –African-eggplant and chill papers, 2. Ensure quality products for market competitiveness, 3. Aggregate production for collective selling; 4. Negotiate price with major buyers 5. Search markets for their produces 6. Adheres to the rules and techniques of horticulture production. | 1. Farmers having a reliable market and good price for horticulture produce; 2. Realized better living standards of horticulture farmers; and 3. Increased yield of quality produce |
| STETIANA and NESA CBOs | 1. Coordinate the implementation of horticulture value chain and market linkage project activities 2. Search market information and intelligence; and 3. Sustain the project outcomes. | 1. Realized project sustainability; and 2. Market information accessed to all farmers. |

**Source**: Project Stakeholders analysis 2016

* + 1. **Project Goal**

The project goal is “improved economic wellbeing of African eggplant smallholder’s farmers and their families in Ulaya by June 2017”. The project intended to improve the economic capacities of small scale eggplant farmers by focusing on value chain and market access facilitation. In this case, however, the establishment of African eggplant value chain and market linkage project would boost the household income of eggplant farmers. It would contribute to increased proportion of parents who were able to provide well for their families in terms of basic necessities such as food and nutrition security and affords social services.

* + 1. **Project Objectives**
       1. **Project General Objective**

The general objective was to contribute toward increased household income of African eggplant growers in Ulaya Village through introduction of a viable eggplant value chain and market linkage project for sustainable economic development by June 2017.

* + - * 1. **Project Specific Objectives**

In order to achieve the main project objective, below four specific objectives were implemented.

1. Increased awareness creation to 100 community members on aggregation of African eggplant production for reliable market access by June 2017.
2. Strengthened capacity of 100 African eggplant farmers, four project implementing CBO staff on management of eggplant value chain and market access by June 2017.
3. Enhanced linkage of 150 eggplant farmers to a reliable market for trading their produces by June 2017, and
4. Enhanced fostering of sustainability of project outcomes and activities through strengthening capacity of CBO leaders on transition strategic management and leadership skills by June 2017.
   1. **Host Organization**

STETIANA CBO is a registered community based organization with the aim of combining efforts in fighting against poverty. Its head quarter is located at Ulaya Village in Kilosa District. The group started in 2006 with seven founder members and then mobilized other 10 people making the total of 17 active members.

* + 1. **STETIANA CBO Leadership**

The CBO has a strong leadership of four personnel headed by a Chairperson, deputy Chairperson, Secretary and the group treasurer. The executive committee meets every month to discuss the project progress and challenges and set strong ways forward for improvements.

* + 1. **STETIANA Vision**

STETIANA vision is to make the group members share better life through the improved household economic development that is sustainable.

* + 1. **Mission of STETIANA CBO**

It aims at championing conservation agriculture and sustainable environment as means of economic development and provides best developmental services for all community members to live standard life.

* + 1. **STATIANA CBO Activities**

The following are the main activities that are being performed by the STETIANA CBO.

1. Build capacity of community members on tree nursery establishment;
2. Engage in sustainable bee keeping alongside community forest management;
3. Engage in dairy cow keeping;
4. Practice conservation agriculture such as organic horticulture farming; and
5. Collaborate with other partners in various activities pertaining community development, advocacy and child protection activities.



Figure 2.1:The STETIANA Office and Registration Certificate

* + 1. **STETIANA CBO SWOT Analysis**

It was necessary to understand the Strengths, Weaknesses, Opportunities and Threats of the CBO for effective project management. The below analysis describes the ideal SWOT for STETIANA CBO.

* + 1. **STETIANA Organization Structure**

STETIANA GENERAL MEETING

(TWICE A YEAR)

STETIANA EXECUTIVE COMMITTEE

(5 PEOPLE)

STETIANA TREASURERR

STETIANA SECRETARY

CHAIRPERSON

CHILD MONITORS

PROJECT MANAGER

CHILD SPONSORSHIP INCHARGE

TREE NURSERY PROJECT SUPERVISOR

BEEKEEPING PROJECT SUPERVISOR

Figure 2.2: STETIANA CBO Organizational Structure

**Table 22: STETIANA SWOT Analysis**

| **S/NO.** | **STRENGHT** | **WEAKNESS** | **OPPORTUNITIES** | **THREATS** |
| --- | --- | --- | --- | --- |
| 1. | Strong and committed leadership headed by chairperson. | The leaders lacks project management skills, | 1. Office premises for project operation; 2. Presence of District Agriculture department for advisory to the CBO leaders; | Most of groups’ activities are voluntarily based, so they may concentrate on individual IGAs. |
| 2 | The CBO has partnership experience with other CSO and receive financial support from government and NGO. | Lacks of loan management skills | 1. Access to Finance through institutions such as Vision Fund and VICOBA. 2. Members do savings and lending activities. | Other CBOs may be jealousness to the implementing CBO (STETIANA) as they are would think benefiting more than them. |
| 3 | The group members have already being doing horticulture production. | 1. Members lacks entrepreneurship skills; 2. Unreliable market due to compromised aggregation production and unreliable market information. | 1. Availability of water for irrigation; 2. Market for horticulture produce is high | Irrigation infrastructures and equipment are somehow expensive to smallholder farmers and therefore may bring unequal level of productivity among horticulture farmers. |
| 4 | The group is legally recognized at District level with registration number KLS/CBO/022 dates on 24th November 2005. | 1. Lacks branding skills 2. Lacks of innovation in value addition of their produces. | 1. Availability of SIDO the government agency that promote small industrial development. 2. The local Government provides technical support to groups through their extension officers. | Unwillingness to transform mindset toward improved economic development through value chain system. |

**Source**: CNA Report, 2016

* + 1. **The Roles of Student and STETIANA CBO in the Project**

The following in table 2.4 is the roles of student and CBO leaders in the implementation of AVML project.

Table 23: Roles of Student and STETIANA CBO in the Project

|  |  |
| --- | --- |
| **Roles of the Student** | **Roles of STETIANA CBO** |
| 1. To mobilize and create awareness to Ulaya community members on horticulture market driven project; 2. Facilitate capacity building to STETIANA CBO leaders, horticulture farmers, and project partners; 3. Provide consultation services to the CBO on seeking resources for project implementation; 4. Facilitate lobbying to funders of project about the availability of project tools and equipment; 5. Facilitate the horticulture value chain and market linkage techniques to CBO staff, farmers and other stakeholders; 6. Facilitate and coordinate the promotion of horticulture market aggregation; 7. Facilitate mutual relationship and trust among horticulture producers and major buyers along the value chain; and 8. Co-facilitate the CBO leaders and other professionals to conduct monitoring and evaluation of the project. | 1. Participate in capacity building workshops related to horticulture value chain and market facilitations skills; 2. Facilitate the community mobilization on aggregate horticulture production for sufficient supply of market; 3. Facilitate launching of project to all partners including the government at local level; 4. Facilitate market information and intelligence and link farmers to reliable market of horticulture produces; 5. Search for technical support from economic development partners for effective project implementation; 6. Establish centers for horticulture produce aggregation before collection and transportation to major buyers in town and cities; 7. To keep sales records and submit reports to responsible parties; and 8. To perform the daily project administration. |

# CHAPTER THREE

# LITERATURE REVIEW

**3.1 Introduction**

This chapter attempts to review the previous author’s works related to horticulture value chain and market linkage topics. It entail to show the overviews of preceding researches, journals, projects and reports linked to horticulture sector and its guiding operational policy in Tanzania and in the Regions. The chapter is divided into four sections including the theoretical literature, empirical literature, policy reviews and the literature review summary. Regarding the theoretical reviews, the emphasis is on previous theories related to market driven horticulture value chain approach/system.

Nevertheless, the empirical review describes on similar projects performed by others focusing on the approaches and models used; achieved outcomes, experiences, innovations and lessons learnt and other relevance references related to this project. Last but not least it analyses relevant policy issues contributing to the project success whereas relevant books, professional journals, policy and strategies were vitally used in organizing information gathering for this chapter.

* 1. **Theoretical Literature Review**
     1. **Theories on Value Chain**

In recent years, the concept of value chain has been widely used as a facilitation tool for integrating small enterprises into high value markets. Value chains are a key framework for understanding how inputs and services related to horticulture productivity are brought together and then used to grow, transform a product; how the produce then moves physically from the producer to the customer; and how value changes along the whole product supply chain. Trienekens (as cited in Lazzarini et al, 2011) stated that during the past decades there has been extensive theory building in the field of value chains, reflected in many definitions and analytical approaches (2011, p. 56-57). Trienekens also suggested that scientific disciplines that add to the development of value chain theory can be grouped into four streams with different perspectives on inter-business relationships, as illustrated by Trienekens (2011, p. 57) in the below figure 4.

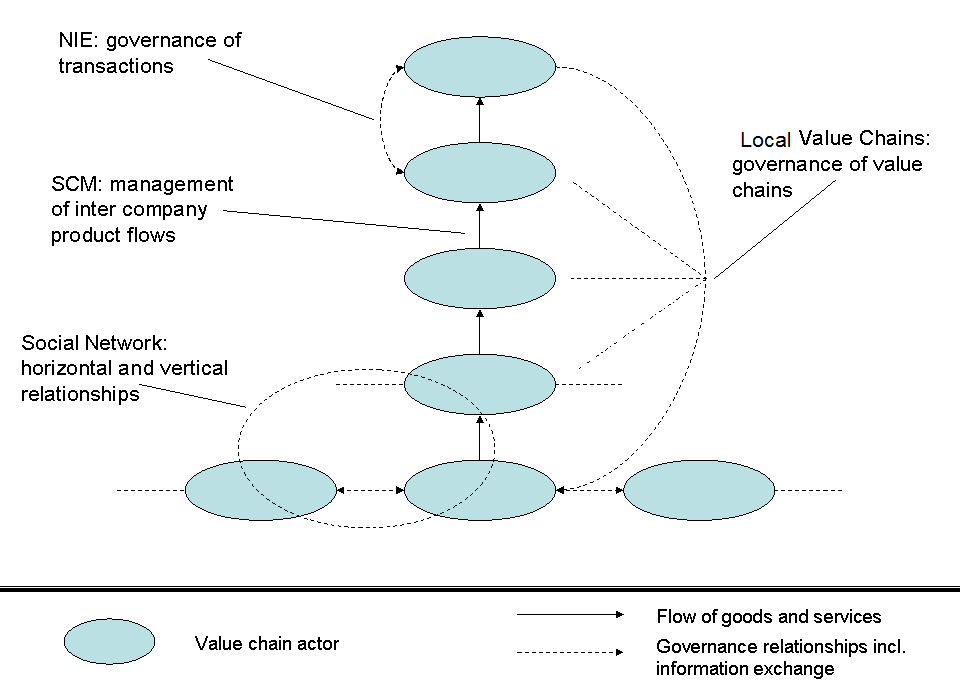


Figure 3.1: Perspectives of Theoretical Streams on Value Chains Relationships

Source: Trienekens, (2011)

The value chain perspective provides an important means to understand business-to-business relationships that connect the chain, mechanisms for increasing efficiency, and ways to enable businesses to increase productivity and add value, in this regard, value added eggplant produce that is linked to market competitiveness. Kaplinsky and Morris (2002) also describes value chain as the full range of value-adding activities required to bring a product or service through different phases of production, including procurement of raw materials and other inputs, assembly, physical transformation, acquisition of required services such as transport or cooling, and ultimately response to consumer demand (p. 4). Kaplinsky et al also defines value chain as the flow of physical inputs and services in the production of a final product, and is essentially similar to the modern value chain concept in its emphasis on vertical and horizontal coordination. According to Kaplinsky and Morris (2002) value chains are governed when the parameters requiring product, process, and logistic qualification that are set have consequences up or down the value chain, encompassing bundles of activities, actors, roles, and functions.

In the other term, ILO (2007) explains value chain as a sequence of target-oriented combinations of production factors that create a marketable product or service from its conception to the final consumption (p. 4). It also provides a reference point for improvements in supporting services and the business environment which ultimately contribute to pro-poor initiatives and better linking of small businesses (referred here as horticulture business) with the market.

* + 1. **Value Chain Approaches**

As earlier described in this chapter, value chain constitutes whole range of discrete, though interrelated, activities involved in the design, production and marketing of a product (Porter, 1985). Reji (as cited in Raikes et al, 2013) mentioned several chain conceptualizations in the literature which include: filiere approach, linkage approach (as cited in Hirschman, 2013), Porter’s value chain (Porter, 1985), global commodity chain (as cited in Gereffi and Korzeniewicz, 2013) and the global value chain analysis (Gereffi, 1999). These approaches deal with the flow of products and services along the chain, relationships between businesses and coordination of production chains (Reji, 2013, p. 28).

Reji also stated that the linkage approach and Porter’s value chain constitute the two most influential chain conceptualizations. The linkages approach, proposed by Hirschman (1958) argues that investment in a firm produces demand effects that induce subsequent investment by input suppliers. Porter (1985) used the concept of value chain to explain business’s competitive advantage within an industry or sector. He included all of the activities that a firm performs to design, produce, market, deliver and support its product.

The filiere approach originally dealt with the vertical integration of firms in agriculture trade (Raikes et al, 2000). It focused to map the actual commodity flows and to identify the agents and activities within a chain, which is viewed as a physical flow chart of commodities and transformations (Reji, 2013, p.28 -29). Bammann (2007) identified three important levels of value chain.

1. Value chain actors: The chain of actors who directly deal with the products, i.e. produce, process, trade and own them;
2. Value chain supporters: The services provided by various actors who never directly deal with the product, but whose services add value to the product; and
3. Value chain influencers: The regulatory framework, policies, infrastructures, etc.

Reji (2013) contended that during 1990s, the early filiere analysis was modified into a more comprehensive analytical framework called Global Commodity Chain analysis (p. 29). Reji (as cited in Korzeniewicz, 2013) defined a global commodity chain as a set of transnational inter-organizational linkages that constitute the production, distribution and consumption of a commodity. According Reji a major difference between these two approaches is that the filiere approach focused specifically on agricultural commodities, but the GCC analysis focused on manufacturing firms in which economic integration goes beyond international trade in raw materials and final products. For this project, filiere and linkage approaches are applicable as they deals with agricultural commodities that are market driven, horticulture in particular and specifically African Eggplant production (p. 29).

* + 1. **Integration of Value Chain Approaches into Viable Market System**

Reji (as cited in Meihlbradt and McVay, 2013) argued that value chain development is fundamentally about strengthening market relationships so that businesses work better together to compete more effectively in the global market. He further contended that (as cited in Kula et al., 2013) value chain provides a step-by step guide to intervention design for achieving competitiveness that benefits the poor: first sectors are selected with potential for competitiveness, and then a value chain analysis is carried out; a strategy is developed to improve competitiveness and achieve an equitable distribution of benefits; an action plan is devised to achieve this strategy; and finally a system of performance monitoring and impact assessment is devised to evaluate the effectiveness of value chain interventions (p 29 -30).

These steps were useful in implementation of African eggplant value chain and market linkage project for attaining the economic wellbeing of eggplant growers. Reji (as cited in Harper 2013) provides several examples of fully integrated value chains that demonstrate even the smallest producers can be linked to modern markets in ways which are profitable for all parties. According to Harper if well integrated into project and rightly built, value chains can include and benefit poor producers by offering them an opportunity to access reliable market in distant locations, which small producers can never reach on their own (p. 32).

Kaplinsky (2000) also argued that integration into value chains helps the small farmers to increase the efficiency of its internal operation and secondly develop inter-firm linkages that reduce transaction costs. It is in this sense that if smallholder farmers in Ulaya community start aggregating horticulture production for collective selling, they can probably reduce the transaction costs but also increase efficiency of their production. Different studies have noticed that, collaborative ties between producers facilitate sharing of knowledge, technologies and inputs (Reji, as cited in Storper, 2013 p.29) develop greater responsiveness to global demands (Canina et al 2005); and attain greater export levels as a result of collective efficiency (Reji as cited in Schmitz, 2013 p. 29) and improving competitiveness. Webber and Labaste (2010) agreed that without market knowledge, particular expertise, or competitive products and services, entire economy will essentially fail to take advantage of the potentially high benefits of global markets and the increases in global trade flows (p. 4). Webber and Labaste also argued that the way that knowledge is transferred is determined by the information flows or linkages between firms within a value chain (p.22).

* + 1. **Relationship between Value chain and Market Access**

These two terms are interdependent. It is very clear that a massive literature on value chains and market development provide evidences on small farmers’ access to market (Reji 2013). Humphrey and Aleman (2010) have reviewed several SMEs value chain interventions across different countries. According to Reji, some of these interventions focused on establishing business-to-business linkages along the value chain, while others looked at improving the broader business environment in which the value chain operate.

During the review of SME value chain, Humphrey and Aleman found that value chain interventions that are oriented towards business-to-business linkages typically employed one or four methods to improve chain performance (Reji, as cited in Humphrey and Aleman, 2013). These methods include: 1) identifying and working with weak links within value chains that undermine the performance of value chain as a whole; 2) improving flows of resources and knowledge along the chains; 3) improving the efficacy of linkages between chain actors; and 4) developing new alternate linkages in the value chains. Reji also stated that interventions oriented towards the wider business environment focuses predominantly on mobilizing stakeholders to engage with regulators and government (p. 32). In this regard, the research interested to improve chain performance of horticulture producers being linked to market for enhancing sustainable economic development.

* + 1. **Approaches to Linking Producers to the Markets**

Linking farmers to markets can embrace a whole range of activities, from the very small and localized to the very large and dispersed. The concept does, however, assume the development of long-term business relationships rather than support for ad hoc sales (FAO, 2007). From this literature review it is revealed that liking producers to markets is not a confined support during selling of products/farm produce but it rather starts from production phase by producing crops of high value market to final consumers. The process of linking producers to market is geared by several factors such as power of market information and knowledge, bargaining power between producers and buyers, mutual trust and power relations in value chains.

* + 1. **Market Power Relations between Buyers and Producers**

A strong competitive market of agricultural produce in value chain is determined by power relations among different actors. According to World Bank (2010) market power refers to the idea that one firm in the market may be able to exert significant influence over the goods and services traded or the price at which they are sold. Power relations determine how economic gains and risks are distributed among value chain actors (Michael Porter, 2007) as described in figure 3.2 and to what extent dominant firms may set and enforce standards with the aim of raising entry barriers for competitors and achieving market foreclosure (World Bank, 2010). Market powers of value chain actors are also determined by their competence, market forces and technical capabilities.

The challenge of agricultural market is a great concern to most producers which is the outcome of missing price bargaining powers between producers and buyers in the market. In economics perspective, bargaining power refers to the ability to set prices or wages, usually arising from some sort of monopoly, monopoly-like position, or non-equilibrium situation in a market (World Bank 2010). The actor with greater bargaining power has the greater decision-making freedom in setting price for product or service. Normally, value chains features two types of bargaining power relationships which are buyer-driven and producer-driven (World Bank, 2010). Buyer-driven value chains refer to a market context where producers have few options for selling their goods or services. With these power relations, buyers here define the rules such as quality and other standards and dominate price setting which is the barrier to the suppliers/producers.

Threat of new entrants

Bargaining power of customers

Threat of substitute products

Competitive rivalry within an industry

Bargaining power of suppliers

Figure 3.2: Power Relations in Value Chains

Source: Michael Porter, 2007)

Producer-driven value chains are often characterized by knowledge intensity, relatively higher levels of technology or skills, scarcity, high levels of marketing, or capital-intensive production practices. These high-level factors, scarcities, and differentiations tend to produce barriers to entry for competition. This kind of bargaining power relationship is the focus for this project as it will build capacity of African eggplant producers to have market power.

* + 1. **Power of Market Information and Knowledge**

Market information is a key for market powers in value chain. However, most of farmers are limited to market information and various development actors haven’t invested in this area. This is also noticed to Ulaya farmers in Kilosa district. Knowledge is power –which enables horticulture producers to bargain for better price. It is the role of this project to address the challenge of access to market information. Porter (1998a) argued that production factor of “know-how” is one core factor regarding the upgrading of value chains. A value chain’s access to information like market trends can itself be a competitive advantage. The way that knowledge is transferred is determined by the information flows or linkages between firms within a value chain (World Bank 2010).

* + 1. **Types of Market Linkage**

FAO (2007) explains seven types of market linkages that enable famers/producers to access market for better prices that contribute to household income for poverty reduction. Below are the types of market linkages with their pros and cons as adopted from author shepherd (2007) in below table 3.1: -

Table 24.1: Types of Market Linkages

| **Types of linkage.** | **Collective activity** | **Advantages for farmers** | **Disadvantages for farmers** |
| --- | --- | --- | --- |
| Formal large-scale contract Farming | 1. Company may prefer to group farmers, formally or informally, for input and output marketing and extension; 2. External assistance may be needed to support farmer groups; | 1. Inputs, technical assistance, etc. may be supplied on credit. 2. Crop marketing organized by company. | 1. Companies often require external agency e.g. bank to finance credit provision; 2. Frequent mistrust between farmers and companies and their employees; 3. Contracted price lower than market price may lead to sales outside of the contract; |
| Linkage promoted by leading farmer. | Farmers usually function as informal group, coordinated by one or a few leading farmers. | 1. Farmers have output, and sometimes, input marketing taken care of; 2. Greater negotiation power with larger quantities. | 1. Leading farmer may pull out of the venture; 2. Payment may be deferred if buyers defer payment to leading farmer. |
| Linkages through Cooperatives. | Farmers may link directly with the cooperative or through groups. | 1. Inputs, technical assistance, etc. may be supplied on credit; 2. Crop marketing, packaging, grading and storage and sometimes, processing organized by cooperative; 3. Potential for farmers to sell larger volumes. | 1. Cooperatives often depend on subsidies and external managerial assistance. 2. Commercial activities can collapse when subsidies and assistance run out. |
| Direct between farmers and traders | 1. Farmers usually act on a one-to one basis with traders; 2. May work together informally to bulk-up produce to reduce costs and attract larger traders. | 1. Requires high level of trust but such trust likely to ensure long term sustainability; 2. Formal farmer organizations not usually needed; 3. Traders may (rarely) provide training in production and handling. | 1. May need to accept short-term deferred payment; 2. Limited access to high-value markets. |
| Direct between farmers and retailers (including restaurant chains) or their wholesalers | May require formal group structure, particularly when buyer does not want to deal with farmers individually. | 1. Reliable market at agreed price. | 1. Must meet variety, quality and safety specifications; 2. Must be able to supply agreed quantities at all times. This may place farmers in conflict with social obligations; 3. May have to accept deferred payment of up to 90 days. |
| Farmer to exporter | Often involves grouping of farmers. External technical assistance may be required. | 1. Potential high returns if quality can be achieved; 2. Inputs, technical assistance, etc. may be supplied on credit; 3. Exporter often provides transport and packaging | 1. Export markets are inherently risky; 2. Compliance with standards (e.g. organic; quality and traceability; fair trade) can be problematic, even with technical assistance. |
| Direct between farmers and agro-processors | 1. Farmer groups can bulk-up produce for collection by processor; 2. Groups can facilitate supply of inputs and provision of technical assistance. | 1. May provide secure market at agreed price; 2. Offers additional market in addition to fresh market; 3. Inputs, technical assistance, etc. may be supplied on credit; 4. Processor often provides transport; | 1. There may be an inadequate market for the processed products, thus jeopardizing sustainability; 2. Must meet variety, quality and safety specifications; 3. Open market price may be higher than that agreed with processor; 4. Risk of delayed payments. |

**Source**: FAO, 2007.

* 1. **Empirical Literature**
     1. **Tanzania Horticulture Subsector**

Horticulture industry in Tanzania has started mushrooming during 1990s. Vegetable production and export are becoming increasingly important in the Tanzanian economy (USAID, 1993). Mwasha (1998) reported that in Tanzania, vegetables are typically grown on a rather small scale, however, horticultural crops usually generate higher earnings per unit area and represent an alternative for farmers with too small cultivable land to provide adequate income from field crops. While vegetables were considered as luxury products and of secondary importance in Tanzania for a long time and the government gave priority to cereals production, recently a rapid increase in fruit and vegetable production has occurred due to the revival of economic growth and liberalisation of non-traditional export marketing.

Morogoro is among regions in Tanzania which practice horticulture farming with great focus on tomatoes, African eggplant (mock-tomatoes) and fruits. A research done by USAID (1993) mentioned four districts carrying out horticulture production within the region which included: Morogoro, Kilosa, Mahenge and Kilombero. The region contributes about 2% of national production of horticulture. The sector plays a significant role in inflation control as more than 95% of food requirements in the country are obtained from locally produced crops. It also provides 65% of industrial raw materials in the country and contributes 30% of export earnings (HODECT, 2010).

The modern growth in horticulture exports indicates the vast potential for development in Tanzania. The horticultural development potential of Tanzania is bolstered by notable strengths, including suitable soils and diverse climatic conditions for cultivation of a wide range of horticultural crops, commitment by the government to support agriculture and non-traditional export crops, among others (HODECT 2010). There are also numerous opportunities for further development of the industry including increasing investment flows into agricultural activities in East Africa, proximity to rapidly growing export markets, and increasing awareness of health and nutritional benefits of horticultural products.

* + 1. **Key Challenges facing Horticultural Industry in Tanzania**

According to HODECT (2010) Tanzania’s horticultural industry faces several universal challenges: weak production base, low productivity and quality, invisibility and marginalization, limited access to finance especially long-term financing and investment, bottlenecks in land, policy and infrastructure, inadequate market development support, weak industry linkages, lack of entrepreneurship culture, and inadequate skilled and competent human resource. Following these challenges the researcher has considered them into the project in order to be addressed.

* + 1. **African Eggplant Production in Tanzania**

In Tanzania, according to Keller (2004 p.174) study on horticulture, African eggplant is synonymally known as "ngogwe" or "nyanya chungu" in Swahili whereby the latter means bitter tomatoes (AVRDC, 2003). There numbers of species as they are found in different shapes but the most productive one is Solanum aethiopicum and is native to Africa in origin (Bukenya & Carasco, 1995). In Tanzania, about four types are grown namely Tengeru white, garden egg, manyere green and white small eggplant (Keller 2004:p177). Off all varieties 'Tengeru white' is largely preferred as has high demand on the market (Schippers, 2002).

Keller also identifies Tengeru white as most preferred variety in Arumeru and the garden egg are practice in muheza and alike other vegetables, African eggplant fruit could be transported long distances, and stored for several days as are free of rot or damages before selling to market (Keller, as cited in Lester and Seck, 2004). This characteristic feature has also attracted the CED student to promote the African eggplant for leveraging household income of horticulture farmers in Ulaya Village of Kilosa District. From these literatures, it revealed that Kilosa district despite endowed with plenty of water and fertile irrigable land; it was not mentioned as among potential district for African Eggplant value chain.

* 1. **Policy Reviews**

The policy reviews related to horticulture value chain and marketing was done by looking on to two policies namely National Agriculture policy (2013) and Agricultural marketing policy of 2008. These two policies contribute toward achieving the National Development Vision 2025 which aims at achieving a high quality livelihood for its people through sustainable economic growth by year 2025. In achieving this long-term goal, these related agriculture policies are critically important in transforming the agricultural sector especially for small holder farmers.

The National Agriculture Policy (URT, 2013) itself recognizes the importance agricultural product marketing as crucial factor for the development of agricultural commodities and stimulating agricultural production. The general Objective of policy is to develop an efficient, competitive and profitable agricultural industry that contributes to the improvement of the livelihoods of Tanzanians and attainment of broad based economic growth and poverty alleviation (URT, 2013 p. 9). The policy specific objective in subsection 2.2.4 (v) p.10 focuses on how to enhance production of quality products in order to improve competitiveness of agricultural products in the domestic, regional and international markets.

On other hand the Agricultural Marketing Policy aims to facilitate strategic marketing of agricultural products while ensuring fair returns to all stakeholders based on a competitive, efficient and equitable marketing system. Among many specific objectives, the Agricultural Marketing Policy (URT, 2008) stimulate diversification and value addition in agricultural products in response to increasing and changing market demand and it promote adherence to quality, standards and grade in agricultural products to meet domestic, regional and international markets requirements.

Regardless of a well-documented policies, strategies and regulations as well as the presence of institutional framework for horticulture industry - production, processing, transportation, and exportation (URT 2011; URT 2001; URT 2002) the existing policy and institutional frameworks have not been able to foster production and marketing of the horticulture products in terms of (a) adequately linking smallholder producers to markets especially the world market – that the existing market system has tended to crowd out most of the small scale farmers thus denying them opportunities to generate incomes and improve their livelihoods in the farming communities; and (b) addressing numerous factors or support services that hinder the exportation of horticulture products.

These factors include the required farm inputs; lack of sufficient investment in terms of putting appropriate technology such as irrigation schemes and storage infrastructure; appropriate transportation system like the cold and preservation infrastructure; lack of the necessary credentials to access loans; and lack of the necessary skills. During the community need assessment, there was a noticed farmer’s knowledge gap on market literacy, market access and less power to bargain and negotiate for the better price of farm produce.

* 1. **Literature Review Summary**

In a contemporary time, the horticulture industry has been one of the most dynamic agriculture sub-sectors of the region’s economy over the last 10 years (TAHA, 2011). It is the fastest growing agriculture subsectors and has registered tremendous growth in the past decade. Many literatures shows the efforts taken by various scholars concerning the best and effective ways of improving the economic status of people through the approach of agriculture value chain and marketing system.

Most efforts have been realized on promoting horticulture production whereas the issue of supply is not a big concern now. From the literature reviews it is noticed that the government had presented good policies and strategies concerning commercial horticulture farming as means of poverty alleviation among rural communities. But the farmers had less market powers in terms of bargaining and negotiations, and there was poor farmer’s organization for horticulture supply to compete in the market. To my opinion, horticulture production in individualism approach is hindering farmers from accessing better market because government and other development actors could not offer extension services to individual farmers. It can do to farmers who are in groups, sharing common production skills, producing individually but aggregating production for collective selling. These are missing knowledge gaps noticed from literature reviews done in this study.

So far, the literature reviews have enlighten the researcher that if the project build strong relationship between the actors of value chain and especially between producers and buyers, there could be a strong and sustainable increased household income of horticulture farmers. In summary, there are huge knowledge gaps on value chain relationships, horticulture aggregation production, linking producers to viable markets, and market information and intelligence. Therefore, the initiation of viable African Eggplant value chain and market linkage project to upgrade the entire value chain is an ending solution to the emerged identified gaps that ultimately contributes toward increased household income of horticulture farmers in Ulaya Village for sustainable economic development.

# CHAPTER FOUR

# PROJECT IMPLEMENTATION

**4.1 Introduction**

This chapter shows the project implementation processes towards the intended deliverables. It clearly shows how the project was planned, action taken at each step in implementation of African-Eggplant Value Chain and Market Linkage (AVMLP) project. The implementation was based on AVML project logical framework which clearly indicates the expected deliverables and indicators in hierarchal of objectives. According to Watt (2014) the project implementation phase is where the project team actually does the project work to produce the deliverables.

Deliverables are the output of each development phase, described in a quantifiable way (Watt, 2014). The AVML project implementation was focused on achieving its goal, outcomes/products and outputs which are clearly stated in the project logframe and implementation plan. To effectively implement the project, the MCED student has involved community to prepare a detailed plan of action showing how activities are undertaken to meet the intended objectives at what time frame, which resources/budget required, who are responsible personnel to accomplish the project.

Project implementation cannot be done by single entity. It however, requires multidimensional partners and stakeholders involvement for its successful completion. The implementer of AVML project is STETIANA CBO which has shown commitments to execute the project activities with collaboration of other stakeholders such as the Kilosa District Agriculture Department for extension services support and World Vision for horticulture infrastructure and market facilitation support. World Vision has supported the group with Greenhouse construction of 8\*30M2 which worth 15,000,000TZS to promote horticulture commercial farming.

The AVML project was implemented for the duration of one year starting from July 2016 to June 2017. It has targeted only horticulture farmer’s households whereby farmers were organized into five groups for easy reaching and offering capacity building and service related to horticulture value chain and focused on linking farmers to markets which have been a challenge for some years back. The project has organized horticulture farmers especially those dealing with African eggplant into groups, can have access to market information and negotiate with major buyers for better price. The effort of promoting aggregation production for collective selling of African eggplant was of paramount importance to the improved economic wellbeing of African eggplant smallholder farmers and their families in Ulaya by June 2017.

* 1. **Products and Outputs**

The expected products and outputs of the AVML project’s was to achieve reliable market for African-eggplant and other horticulture crops, knowledgeable farmers on horticulture value chain and market literacy, farmers linked to market, farmers organized to formal groups, tones of African eggplant aggregated for collective selling, experiences and entrepreneurial skills that enable efficiency in horticulture production as per market demand. The product and output are the immediate results after the project activities are being implemented. These deliverables foster results to project outcome and ultimately achieving the project goal. The project goal is realized when the household income of the horticulture farmers is improved and farmers are able to provide support for their families. In order to achieve the project products and outputs the below underlined activities were implemented just after the AVML project inauguration;-

1. Introduction and launching of AVML project to local community leaders/stakeholders in Ulaya village;
2. Conducting one day stakeholder meeting for setting the collaborative implementation strategies including provision of support –skills and material support;
3. Capacity building to 100 African-Eggplant farmers on value chain analysis and market literacy skills in Ulaya Village;
4. Capacity building to 15 STETIANA CBO members and two project frontline staff;
5. Conducting one day exposure visit to local and district market centre for improving the marketing skills including gaining power of bargaining and negotiation;
6. To facilitate formulation of four model African-eggplant producer groups for aggregation production, selection of collecting centres for easy loading and transportation to major buyers in Dar es Salaam city;
7. To facilitate procurement of project assets/equipment and other project costs;
8. Identify four local market facilitators and train them on market literacy skills including looking for market information and intelligence; and
9. Conduct monitoring and evaluation of project implementation.
   * 1. **Project Product**
10. During the AVML project launch 40 local community leaders attended. They included including the village chairperson, VEO, sub village leaders, representative from ward and division office and FBO leaders;
11. AVML project launched to 40 local community leaders including the village chairperson, VEO, sub village leaders, representative from ward and division office and FBO leaders;
12. About 20 stakeholders attended the meeting and jointly agreed on implementation strategies;
13. 98 out of 100 planned African-eggplant famers have knowledge on value chain analysis and market literacy skills;
14. 15 STETIANA CBO members and two project frontline staff have gained knowledge and skills on AVML project management;
15. 10 farmers including LMF got exposed to district market centre and linked to the market;
16. Four producer groups formed and used as model groups in the community regarding the horticulture farming;
17. Four LMF identified and trained on market literacy skills.
    1. **Project Planning**

Project planning is at the heart of the project life cycle, and tells everyone involved where to go and how to get there. The planning phase is when the project plans are documented, the project deliverables and requirements are defined, and the project schedule is created (Watt (2014).According to Watt, the purpose of the project planning phase is to:

1. Establish business requirements;
2. Establish cost, schedule, list of deliverables, and delivery dates;
3. Establish resources plans; and
4. Obtain management approval and proceed to the next phase

The planning process was done in a participatory way whereby the CBO and CED student have involved the beneficiaries –the representatives from horticulture groups came for defining the project objectives. The project objectives were derived from the problems identified in chapter two which was a prime importance with regard to project planning, since it strongly influences the design of all possible interventions (MDF, 2005).

Table 25: Project Objective Analysis

|  |  |  |
| --- | --- | --- |
| Main objective | Means | Outcomes/ends |
| Increased household income of African eggplant farmers in Ulaya community. | * + 1. Strong reliable market for eggplant produce;     2. Knowledgeable eggplant farmers on farming practices.     3. Organized eggplant group of farmers for aggregation production and collective selling of crops;     4. Enhanced Entrepreneurial based oriented eggplant farming.     5. Increased of capital of eggplant farmers. | 1. Families are able to provide support to their children; 2. Reduced malnutrition status 3. Enhanced Food security 4. Afford health services 5. Pay school fees 6. Good houses |

**Source:** Research Data, 2017

The identified focal problem and its causes in chapter two was a base for CED student and CBO members to derive the project objectives by reversing negative statements with positive ones to create the objective statements through objective analysis. It identified means-end relationships as opposed to cause-effects. This has provided an overview of the range of project objective, means and expected outcomes which later helped the researcher to develop a project objectives and logical framework that show the road map to address the needs of the African eggplant farmers as shown in table 4.2 and 4.3 below.

Table 26: AVML Project Planning (Objectives, Outputs and Activities)

| **Objective** | **Output** | **Activity** |
| --- | --- | --- |
| **Objective 1** Increased household income of horticulture farmers as result of enhanced horticulture value chain by June 2017. | **Output 1:** 150 knowledgeable African eggplant producers on value chain productivity and profitability. | **Activity 1**: Introduction and launching of AVML project to local community leaders in Ulaya village; |
| **Activity 2**: Facilitate the formulation of horticulture (eggplant) producer groups. |
|  | **Activity 3**: Capacity building to 100 African-Eggplant farmers on value chain analysis and production skills in Ulaya Village. |
| Activity 4 Construction of one 30m by 8m demo greenhouse. |
| **Objective 2:** Improve the market linkages of African Eggplant producers with markets, service providers and other relevant stakeholders by June 2017. | **Output 1:** 100 African Eggplant Producers have improved market literacy and build linkages with markets and other services providers. | **Activity 1:** Identify four local Market Facilitators; train them on market literacy skills and to work with producers to establish 15 African Eggplant's collective centers. |
| **Activity 2** Conduct two day exposure visits to local and district market centers for improving the marketing skills including gaining power of bargaining and negotiation; |
| **Activity 3** LMF trains producer groups on the importance of working together as collectives for market power relationship. |
| **Activity 4** Train African eggplant producer groups on Market Literacy skills including the gaining power of bargaining and negotiation for market win-win relationships; |
| **Output 2:** Value Chain Stakeholder network established and functional | **Activity 1:** Facilitate the establishment of Value chain stakeholder network including representation from producer groups. |
| **Activity 2:** Conduct two Value Chain stakeholder meetings to address systemic African Eggplant Value Chain constraints/challenges. |
| **Activity 3**: Local Market Facilitators conduct market intelligence on monthly basis for sharing market information to horticulture producers |
| **Objective 3:** Enhanced capacity of implementing CBO and eggplant producer groups on improved production volumes, quality and marketing of African Eggplant products. | **Output 1** Skilled CBO leaders, LMFs and project staff on quality project management. | **Activity 1** Training to three CBO leader on project management |
| **Activity 2** Train Local Market Facilitators for them to conduct coaching to producer groups and leaders on negotiation, market information, understanding prices, relationship building and networking with service providers. |
| **Activity 3** Conducting two days training to project staff on project implementation strategies and monitoring and documentation of impacts. |
| **Objective 4** Enhanced fostering of sustainability of project outcomes through strengthening capacity of CBO leaders on transition strategic management and leadership skills by June 2017. | **Output 1** Increased STETIANA CBO Leadership skills on project sustainability | **Activity 1:** Train three CBO leaders on leadership and transition strategic management skills |
| **Activity 2** Train eggplant producer groups leaders on sustainable eggplant production and sustaining market supply. |
| **Output 2:** AVML Project Managed Effectively | **Activity 1** Facilitate procurement of project assets/equipment and other project costs; |
| **Activity 2** Recruitment of AVML project staff |
| **Activity 3** Inauguration of AVML project to stakeholders |
| **Activity 4** Conduct monitoring and evaluation of project implementation (Midyear and Annual evaluation). |

**Source:** Research Findings, 2017

* + 1. **Project Logical Framework**

The next step was the working group members to prepare a project logical framework which had provided a road map for the project implementation. The logical framework described three major objectives, five immediate results/outputs and 18 activities. The objectives were sequentially arranged showing the vertical (goal, outcome, outputs and activities) and horizontal (Objectively Verifiable Indicators (OVIs), Means of Verification (MOV) and Assumptions) relationship aimed to achieve the project goal of improvingeconomic capacity of African eggplant farmers for better living standards.

Table 27:Project Logical Framework

| **Hierarchy of Objectives** | **Objectively Verifiable Indicators (OVIs)** | **Means of Verification (MOV)** | **Assumptions** |
| --- | --- | --- | --- |
| Project Goal: Improved economic wellbeing of African eggplant smallholder’s farmers and their families in Ulaya by June 2017. | Proportion of households where at least one adult is earning a consistent income, to meet household needs, through sale/exchange of own horticulture produce. | Project evaluation reports | People are aware and are open and honest about their income-status. |
| Outcome 1: Increased household income of horticulture farmers as result of enhanced horticulture value chain by June 2017. | Quantity (tones) of African eggplant aggregated and sold | Project evaluation reports | Farmers willingness to sustain eggplant value chain production |
| Proportion of African-eggplant producers using their capacity on value chain horticulture production. | Project evaluation reports |  |
| Output1.1: 150 knowledgeable African eggplant producers on value chain productivity and profitability. | 150 African eggplant producers trained in improved production techniques. | Project monitoring reports | Producers will actively participate |
| Two exposure visit conducted | Project monitoring reports |  |
| Five African Eggplant producer group formulated. | Project monitoring reports |  |
| Activity 1.1.1 Introduction and launching of AVML project to local community leaders in Ulaya village; |  |  |  |
| Activity 1.1.2 Facilitate the formulation of horticulture (eggplant) producer groups. |  |  |  |
| Activity 1.1.3 Capacity building to 100 African-Eggplant farmers on value chain analysis and production skills in Ulaya Village |  |  |  |
| Activity 1.1.4 Construction of one 30m by 8m demo greenhouse |  |  |  |
| Outcome #2: Improved the market linkages of African Eggplant producers with markets, service providers and other relevant stakeholders by June 2017 | 280 tons of African Eggplant produces sold to markets by producers in 10months i.e. 7 tones by week. | Project monitoring and evaluation reports | Producers will actively participate in organized sessions |
| 100 producers using their business and market skills | Project monitoring and evaluation reports |  |
| 100 producers linked to market and have access to market information. | Project monitoring and evaluation reports |  |
| Output 2.1: 100 African Eggplant Producers have improved market literacy and build linkages with markets and other services providers | 100 trained African eggplant producers on business/market literacy skill sets | Training reports | Producers will actively participate |
| 100 African Eggplant producer aggregating production for collective selling of products to buyers. | Project monitoring reports |  |
| 15 Eggplant's collective centers established. | Project monitoring reports |  |
| Activity 2.1.1 Identify four local Market Facilitators, train them on market literacy skills and to work with producers to establish 15 African Eggplant's collective centers. |  |  |  |
| Activity 2.1.2 Conduct two day exposure visits to local and district market centers for improving the marketing skills including gaining power of bargaining and negotiation; |  |  |  |
| Activity 2.1.3 LMF trains producer groups on the importance of working together as collectives for market power relationship. |  |  |  |
| Activity 2.1.4 Train African eggplant producer groups on Market Literacy skills including the gaining power of bargaining and negotiation for market win-win relationships; |  |  |  |
| Output 2.2: Value Chain Stakeholder network established and functional | A list of value chain stakeholders developed. | Monitoring reports, PG meeting minutes, Training reports | Value chain networks will be functional in all the time of project implementation. |
| Evidence of market information networks |  |  |
| Four active Value Chain stakeholder meetings held. |  |  |
| Activity 2.2.1 Facilitate the establishment of Value chain stakeholder network including representation from producer groups. |  |  |  |
| Activity 2.2.2 Conduct two Value Chain stakeholder meetings to address systemic African Eggplant Value Chain constraints/challenges. |  |  |  |
| Activity 2.2.3 Local Market Facilitators conduct market intelligence on monthly basis for sharing market information to horticulture producers |  |  |  |
| Outcome #3: Enhanced capacity of implementing CBO, eggplant producer groups on improved production volumes, quality and marketing of African Eggplant products. | Sustainable African Eggplant production with quality and volume required by market. | Project evaluation reports | Strong willingness of implementing partners |
| Output 3.1 Skilled CBO leaders, LMFs and project staff on quality project management. | Three CBO Staff trained | List of participants | Willingness and readiness of CBO Members, producers and project staff to sustain the project. |
| Four LMFs have marketing coaching skills |  |  |
| Trained two project staff. |  |  |
| Activity 3.1.1 Training to three CBO leader on project management |  |  |  |
| Activity 3.1.2 Train Local Market Facilitators for them to conduct coaching to producer groups and leaders on negotiation, market information, understanding prices, relationship building and networking with service providers. |  |  |  |
| Activity 3.1.3 Conducting two days training to project staff on project implementation strategies and monitoring and documentation of impacts. |  |  |  |
| Objective 4 Enhanced fostering of sustainability of project outcomes through strengthening capacity of CBO leaders on transition strategic management and leadership skills by June 2017 | Proportion of eggplant farmers sustaining production and supply of markets | Project evaluation reports | Willingness of eggplant producers to sustain production and regular supply of eggplant to markets. |
| Output 4.1 Increased STETIANA CBO Leadership skills on project sustainability | Number of CBO leaders trained on sustainability strategies | Training report |  |
| Activity 1: Train three CBO leaders on leadership and transition strategic management skills |  |  |  |
| Activity 2 Train eggplant producer groups leaders on sustainable eggplant production and sustaining market supply. |  |  |  |
| Output 4.2: AVML Project Managed Effectively | # of review and monitoring visits made. | Training report | High commitment of CBO leaders |
| Activity 4.2.1 Facilitate procurement of project assets/equipment and other project costs; |  |  |  |
| Activity 4.2.2 Recruitment of AVML project staff |  |  |  |
| Activity 4.2.3 Inauguration of AVML project to stakeholders |  |  |  |
| Activity 4.2.4 Conduct monitoring and evaluation of project implementation (Midyear and Annual evaluation). |  |  |  |

**Source:** Research Findings, 2017

* + 1. **Implementation Plan**

As earlier indicated, the smooth project implementation involves putting the project plan into action. Therefore, it was necessary to put the project implementation plan clear whereby the project manager coordinates and direct project resources to meet the objectives of the project plan. As the project unfolds, it’s the project manager’s job to direct and manage each activity, every step of the way. Thus, based on the project logical framework in table 25, the CED student and the CBO staff have involved the potential partners to prepare a workable project implementation plan. The work plan indicated the identified activities to be implemented showing the time frame, the required inputs and responsible personnel for execution. The activities were directly taken form the project logframe and were implemented on a monthly basis. The work plan was executed for the duration of twelve months from July 2016 to June 2017.

The host organization STETIANA CBO as key implementer of the project has also involved different stakeholders in operationalizing the project. The LGA through the Kilosa agriculture department has been well involved and their staff –the extension officers were used as technical experts in executing the project. The host CBO has remained as a coordinating and facilitating body to ensure there is smooth project implementation. The district market expert was also identified as a key resource for facilitating market segment as the project entailed to link African Eggplant producers to the market for better price and ultimately contributing to increased household income among horticulture communities. Table 4.4 shows project implementation plan.

**Table 28: Project Implementation Plan –July 2016 to June 2017**

| **Objective** | **Output** | **Activity** | **Project implementation schedule (months)** | | | | | | | | | | | | **Resources required** | **Responsible person** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **J** | **A** | **S** | **O** | **N** | **D** | **J** | **F** | **M** | **A** | **M** | **J** |
| Increased household income of horticulture farmers as result of enhanced horticulture value chain by June 2017. | 1.1 Knowledgeable 100 African eggplant producers on value chain productivity and profitability. | 1.1.1 Introduction and launching of AVML project to local community leaders in Ulaya village; |  |  |  |  |  |  |  |  |  |  |  |  | Stationaries,  Funds  Staff | MCED student and STETIANA Management. |
| 1.1.2 Facilitate the formulation of five African eggplant producer groups. |  |  |  |  |  |  |  |  |  |  |  |  | Funds,  Human resources. | STETIANA CBO staff |
| 1.1.3 Capacity building to 100 African-Eggplant farmers on value chain analysis and production skills in Ulaya Village |  |  |  |  |  |  |  |  |  |  |  |  | Stationaries  Value chain expert. | CED student and CBO leaders. |
| Activity 1.1.4 Construction of one 30m by 8m demo greenhouse |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Improve the market linkages of African Eggplant producers with markets, service providers and other relevant stakeholders by June 2017 | 2.1 100 African Eggplant Producers have improved market literacy and build linkages with markets and other services providers | 2.1.1 Identify four local Market Facilitators; train them on market literacy skills and to work with producers to establish 15 African Eggplant's collective centers. |  |  |  |  |  |  |  |  |  |  |  |  | Stationaries  Human resources | CED student and marketing expert |
| 2.1.2 Conduct two day exposure visits to local and district market centers for improving the marketing skills including gaining power of bargaining and negotiation; |  |  |  |  |  |  |  |  |  |  |  |  | Funds,  Transport | CED student, CBO staff and Marketing expert. |
| 2.1.3 LMF trains five producer groups on the importance of working together as collectives for market power relationship. |  |  |  |  |  |  |  |  |  |  |  |  | Funds,  Transport | CED student, CBO staff and Marketing expert. |
| 2.1.4 Train 100 African eggplant producer groups on Market Literacy skills including the gaining power of bargaining and negotiation for market win-win relationships; |  |  |  |  |  |  |  |  |  |  |  |  | Funds,  Transport,  Human resources | CED student, CBO staff and Marketing expert. |
| 2.2 One Value Chain Stakeholders’ network established and functional. | 2.2.1 Facilitate the one establishment of Value chain stakeholder network including representation from producer groups. |  |  |  |  |  |  |  |  |  |  |  |  | Funds,  Transport,  Human resources | CED student, CBO staff and Marketing expert. |
| 2.2.2 Conduct two Value Chain stakeholder meetings to address systemic African Eggplant Value Chain constraints/challenges. |  |  |  |  |  |  |  |  |  |  |  |  | Funds,  Transport,  Human resources | CED student, CBO staff and Marketing expert. |
| 2.2.3 Four Local Market Facilitators conduct market intelligence on monthly basis for sharing market information to horticulture producers |  |  |  |  |  |  |  |  |  |  |  |  | Funds,  Transport,  Human resources | CED student, CBO staff and Marketing expert. |
| Enhance capacity of implementing CBO, producer groups and AVML Staffs on improved production volumes, quality and marketing of African Eggplant products. | 3.1 Skilled 4 CBO leaders, LMFs and project staff on quality project management. | 3.1.1 Training to four CBO leader on project management |  |  |  |  |  |  |  |  |  |  |  |  | Funds,  Transport,  Human resources | CED student, CBO staff and Marketing expert. |
| 3.1.2 Train four Local Market Facilitators for them to conduct coaching to producer groups and leaders on negotiation, market information, understanding prices, relationship building and networking with service providers. |  |  |  |  |  |  |  |  |  |  |  |  | Funds,  Transport,  Human resources | CED student, CBO staff and Marketing expert. |
| 3.1.3 Conducting two days training to project staff on project implementation strategies and monitoring and documentation of impacts. |  |  |  |  |  |  |  |  |  |  |  |  | Funds,  Transport,  Human resources | CED student, CBO staff and Marketing expert. |
| Enhanced fostering of sustainability of project outcomes through strengthening capacity of CBO leaders on transition strategic management and leadership skills by June 2017 | Output 4.1 Increased STETIANA CBO Leadership skills on project sustainability | Activity 4.1.1: Train three CBO leaders on leadership and transition strategic management skills |  |  |  |  |  |  |  |  |  |  |  |  | Funds,  Transport,  Human resources | CED student and Marketing expert. |
| Activity 4.1.2 Train eggplant producer groups leaders on sustainable eggplant production and sustaining market supply. |  |  |  |  |  |  |  |  |  |  |  |  | Funds,  Transport,  Human resources | CBO Leaders and Marketing expert. |
| 4.2 AVML Project Managed Effectively | 3.2.1 Facilitate procurement of project assets/equipment and other project costs; |  |  |  |  |  |  |  |  |  |  |  |  | Funds,  Transport,  Human resources | CED student, CBO staff and Marketing expert. |
| 3.2.2 Recruitment of AVML project staff |  |  |  |  |  |  |  |  |  |  |  |  | Funds,  Human resources | CED student, CBO staff and Marketing expert. |
| 3.2.3 Inauguration of AVML project to stakeholders |  |  |  |  |  |  |  |  |  |  |  |  | Funds,  Transport,  Human resources | CED student, CBO staff and Marketing expert. |
| 3.2.4 Conduct monitoring and evaluation of project implementation (Midyear and Annual evaluation). |  |  |  |  |  |  |  |  |  |  |  |  | Funds,  Transport,  Human resources | CED student, CBO staff and Marketing expert. |

**Source:** Research Findings, 2017

* + 1. **Project Inputs**

Project input refers to all physical and non-physical assets that are used as the basis for adding value to a given project and contribute in achieving project goals and objectives. For smooth execution of AMVL project employed various inputs such as financial and human resources, fixed assets such as greenhouse, water pumping machines, farm inputs, office rent and training materials. As the project implementation considered participatory approach, other partners also contributed necessary inputs to the project. The government through Kilosa District Council provided technical skills for improving African eggplant production. World Vision Tanzania supported the model producer group with Greenhouse facility Worthing 15,000,000.00TZS. The government drilled a 100m deep bore hole with worth 16,000,000TZS and World Vision provided submersible pump with its accessories worth 6,700,000TZS to make sure water for greenhouse farming are drawn to the 5000 litres tank for drip irrigation.

* + 1. **Staffing Pattern**

Staffing pattern for AVML project is divided into three forms. The first category was the management staff under the CBO leadership spearhead by CBO chairperson and the general secretary; the second was frontline staff for project implementation and the third one are volunteers including the Local market facilitators who are not paid but were selected from among producer groups to help market skills’ coaching to African Eggplant producers so that they are linked to market. For sustainability, the local government staffs at local level were considered as part of project implementers.

* + 1. **Project Budget**

Table 29: African Eggplant Value Chain and Market Access Project Budget

| **Objective** | **Output** | **Activity** | **Budget breakdown** | **Quantity** | **Unit price** | **Total TZS** |
| --- | --- | --- | --- | --- | --- | --- |
| 1. Increased household income of horticulture farmers as result of enhanced horticulture value chain by June 2017 | 1.1 Knowledgeable African eggplant producers on value chain productivity and profitability. | 1.1.1 Introduction and launching of AVML project to local community leaders in Ulaya village; | Brochures/fliers | 40 | 1,000.00 | 40,000.00 |
| Hiring of hall for meeting | 1 | 20,000.00 | 20,000.00 |
| Fuel | 25 | 1,800.00 | 45,000.00 |
| Soft drinks and Snacks | 40 | 1,500.00 | 60,000.00 |
| 1.1.2 Facilitate the formulation of horticulture (eggplant) producer groups. | Facilitation allowance | 3 | 30,000.00 | 90,000.00 |
| Fuel | 50 | 1,800.00 | 90,000.00 |
| 1.1.3 Capacity building to 100 African-Eggplant farmers on value chain analysis and production skills in Ulaya Village | Flip chart | 1 | 7,000.00 | 7,000.00 |
| Masking tape | 2 | 1,000.00 | 2,000.00 |
| Marker pen (box) | 1 | 6,000.00 | 6,000.00 |
| Facilitation allowance | 3 | 30,000.00 | 90,000.00 |
| Note books | 100 | 1,000.00 | 100,000.00 |
| Activity 1.1.4 Construction of one 30m by 8m demo greenhouse | Labour charges/contribution | 20 | 20,000.00 | 400,000.00 |
| Full contract worth | 1 | 15,000,000.00 | 15,000,000.00 |
| 2. Improve the market linkages of African Eggplant producers with markets, service providers and other relevant stakeholders by June 2017 | 2.1 African Eggplant Producers have improved market literacy and build linkages with markets and other services providers | 2.1.1 Identify four local Market Facilitators; train them on market literacy skills and to work with producers to establish 15 African Eggplant's collective centers. | Facilitation allowance | 1 | 30,000.00 | 30,000.00 |
| Fuel | 15 | 1,800.00 | 27,000.00 |
| 2.1.2 Conduct two day exposure visits to local and district market centers for improving the marketing skills including gaining power of bargaining and negotiation; | Transport fare | 20 | 10,000.00 | 200,000.00 |
| Meals while on transits (2day) | 20 | 3,500.00 | 70,000.00 |
| Facilitation allowance | 2 | 30,000.00 | 60,000.00 |
| 2.1.3 LMF trains producer groups on the importance of working together as collectives for market power relationship. | Flip chart | 1 | 7,000.00 | 7,000.00 |
| Marker pen | 6 | 500.00 | 3,000.00 |
| 2.1.4 Train African eggplant producer groups on Market Literacy skills including the gaining power of bargaining and negotiation for market win-win relationships; | Flip chart | 1 | 7,000.00 | 7,000.00 |
| Masking tape | 2 | 1,000.00 | 2,000.00 |
| Marker pen (box) | 1 | 6,000.00 | 6,000.00 |
| Facilitation allowance | 2 | 30,000.00 | 60,000.00 |
| Soft drinks and Snacks | 100 | 1,500.00 | 150,000.00 |
| 2.2 Value Chain Stakeholder network established and functional. | 2.2.1 Facilitate the establishment of Value chain stakeholder network including representation from producer groups. | Soft drinks and Snacks | 40 | 1,500.00 | 60,000.00 |
| Transport, | 40 | 7,000.00 | 280,000.00 |
| hall charges | 1 | 50,000.00 | 50,000.00 |
| 2.2.2 Conduct two Value Chain stakeholder meetings to address systemic African Eggplant Value Chain constraints/challenges. | Soft drinks and Snacks | 40 | 1,500.00 | 60,000.00 |
| Transport, | 40 | 7,000.00 | 280,000.00 |
| hall charges | 1 | 50,000.00 | 50,000.00 |
| 2.2.3 Local Market Facilitators conduct market intelligence on monthly basis for sharing market information to horticulture producers | Transport fare | 4 | 10,000.00 | 40,000.00 |
| Updating notice board | 2 | - | - |
| Feedback onsite | 2 | - | - |
| 3. Enhance capacity of implementing CBO, producer groups and AVML Staffs on improved production volumes, quality and marketing of African Eggplant products. | 3.1 Skilled CBO leaders, LMFs and project staff on quality project management. | 3.1.1 Training to three CBO leaders on project management | Soft drinks and Snacks | 6 | 1,500.00 | 9,000.00 |
| Facilitation allowance | 1 | 30,000.00 | 30,000.00 |
| Stationaries printing | 50 | 500.00 | 25,000.00 |
| 3.1.2 Train Local Market Facilitators for them to conduct coaching to producer groups and leaders on negotiation, market information, understanding prices, relationship building and networking with service providers. | Soft drinks and Snacks | 4 | 1,500.00 | 6,000.00 |
| Facilitation allowance | 1 | 30,000.00 | 30,000.00 |
| stationaries photocopy | 50 | 100.00 | 5,000.00 |
| 3.1.3 Conducting two days training to project staff on project implementation strategies and monitoring and documentation of impacts. | Soft drinks and Snacks | 2 | 1,500.00 | 3,000.00 |
| Facilitation allowance | 1 | 30,000.00 | 30,000.00 |
| Stationaries –photocopy | 20 | 100.00 | 2,000.00 |
| Objective 4 Enhanced fostering of sustainability of project outcomes through strengthening capacity of CBO leaders on transition strategic management and leadership skills by June 2017 | Output 4.1 Increased STETIANA CBO Leadership skills on project sustainability | Activity 4.1.1: Train three CBO leaders on leadership and transition strategic management skills | Soft drinks and Snacks | 3 | 1,500.00 | 4,500.00 |
| Facilitation allowance | 1 | 30,000.00 | 30,000.00 |
| Activity 4.1.2 Train eggplant producer groups leaders on sustainable eggplant production and sustaining market supply. | Transport (fuel) | 20 | 1,900.00 | 38,000.00 |
| Facilitation allowance | 1 | 30,000.00 | 30,000.00 |
| 4.2 AVML Project Managed Effectively | 4.2.1 Facilitate procurement of project assets/equipment and other project costs; | Office chair | 3 | 15,000.00 | 45,000.00 |
| Table | 1 | 50,000.00 | 50,000.00 |
| Cupboard | 1 | 100,000.00 | 100,000.00 |
| 4.2.2 Recruitment of AVML project staff | Monthly payment of two project staffs | 12 | - | - |
| Monthly Benefits | 12 | - | - |
| 4.2.3 Conduct monitoring and evaluation of project implementation (Midyear and Annual evaluation). | Enumerators allowances | 10 | 10,000.00 | 100,000.00 |
| Fuel (Liters) | 50 | 1,800.00 | 90,000.00 |
| Soft drinks and Snacks | 10 | 2,000.00 | 20,000.00 |
| **GRAND TOTAL BUDGET** | |  |  |  |  | **18,039,500** |

**Source:** Research Findings, 2017

The total annual project budget was TZS 18,039,500.00. Due to strengthened partnership, this budget was drawn from three major sources. The government through district agriculture provided technical experts worth 300,000 and the international organization World Vision supported model producers with greenhouse facility Worthing 15,000,000TZS and 2,739,500.00 for assets and training expenses

* 1. **Project Implementation Gantt Chart**

This is a tool for managing the project implementation schedule. Any project has time frame, therefore the student and the STETIANA CBO worked together to identify tasks to be implemented, when to start implementing the tasks, actual duration of the task in calendar days (July 2016 – June 17), set up of end-date of the task and tracking progress of tasks accomplishments. The progress of any task is tracked as a percentage of the task and displayed in the chart, and the dependencies of the subtasks be documented to further determine the start-date to accomplish these dependencies. The following below table 30 show the implementation Gantt chart.

Table 30: Project Implementation Gantt chart

| **Objective** | **Output** | **Activity** | **Project implementation schedule (months) July 2016 to June 2017** | | | | | | | | | | | | **Responsible person** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **J** | **A** | **S** | **O** | **N** | **D** | **J** | **F** | **M** | **A** | **M** | **J** |  |
| 1. Increased household income of horticulture farmers as result of enhanced horticulture value chain by June 2017. | 1.1Knowledgeable 100 African eggplant producers on value chain productivity and profitability | 1.1.1 Introduction and launching of AVML project to local community leaders in Ulaya village; |  |  |  |  |  |  |  |  |  |  |  |  | MCED student and STETIANA Management. |
| 1.1.2 Facilitate the formulation of horticulture (eggplant) producer groups. |  |  |  |  |  |  |  |  |  |  |  |  | STETIANA CBO staff |
| 1.1.3 Capacity building to 100 African-Eggplant farmers on value chain analysis and production skills in Ulaya Village |  |  |  |  |  |  |  |  |  |  |  |  | CED student and CBO leaders. |
| 1.1.4 Construction of one 30m by 8m demo greenhouse |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Improve the market linkages of African Eggplant producers with markets, service providers and other relevant stakeholders by June 2017 | 2.1 100 African Eggplant Producers have improved market literacy and build linkages with markets and other services providers | 2.1.1 Identify four local Market Facilitators; train them on market literacy skills and to work with producers to establish 15 African Eggplant's collective centers. |  |  |  |  |  |  |  |  |  |  |  |  | CED student and marketing expert |
| 2.1.2 Conduct two day exposure visits to local and district market centers for improving the marketing skills including gaining power of bargaining and negotiation; |  |  |  |  |  |  |  |  |  |  |  |  | CED student, CBO staff and Marketing expert. |
| 2.1.3 LMF trains producer groups on the importance of working together as collectives for market power relationship. |  |  |  |  |  |  |  |  |  |  |  |  | CED student, CBO staff and Marketing expert. |
| 2.1.4 Train African eggplant producer groups on Market Literacy skills including the gaining power of bargaining and negotiation for market win-win relationships; |  |  |  |  |  |  |  |  |  |  |  |  | CED student, CBO staff and Marketing expert. |
| 2.2 One Value Chain Stakeholders’ network established and functional. | 2.2.1 Facilitate the establishment of Value chain stakeholder network including representation from producer groups. |  |  |  |  |  |  |  |  |  |  |  |  | CED student, CBO staff and Marketing expert. |
| 2.2.2 Conduct two Value Chain stakeholder meetings to address systemic African Eggplant Value Chain constraints/challenges. |  |  |  |  |  |  |  |  |  |  |  |  | CED student, CBO staff and Marketing expert. |
| 2.2.3 Local Market Facilitators conduct market intelligence on monthly basis for sharing market information to horticulture producers |  |  |  |  |  |  |  |  |  |  |  |  | CED student, CBO staff and Marketing expert. |
| 3. Enhance capacity of implementing CBO, producer groups and AVML Staffs on improved production volumes, quality and marketing of African Eggplant products. | 3.1 Skilled 4 CBO leaders, LMFs and project staff on quality project management. | 3.1.1 Training to three CBO leader on project management |  |  |  |  |  |  |  |  |  |  |  |  | CED student, CBO staff and Marketing expert. |
| 3.1.2 Train Local Market Facilitators for them to conduct coaching to producer groups and leaders on negotiation, market information, understanding prices, relationship building and networking with service providers. |  |  |  |  |  |  |  |  |  |  |  |  | CED student, CBO staff and Marketing expert. |
| 3.1.3 Conducting two days training to project staff on project implementation strategies and monitoring and documentation of impacts. |  |  |  |  |  |  |  |  |  |  |  |  | CED student, CBO staff and Marketing expert. |
| Objective 4 Enhanced fostering of sustainability of project outcomes through strengthening capacity of CBO leaders on transition strategic management and leadership skills by June 2017 | Output 4.1 Increased STETIANA CBO Leadership skills on project sustainability | Activity 4.1.1: Train three CBO leaders on leadership and transition strategic management skills |  |  |  |  |  |  |  |  |  |  |  |  | CED student, |
| Activity 4.1.2 Train eggplant producer groups leaders on sustainable eggplant production and sustaining market supply. |  |  |  |  |  |  |  |  |  |  |  |  | CED student, |
| 4.2 AVML Project Managed Effectively | 4.2.1 Facilitate procurement of project assets/equipment and other project costs; |  |  |  |  |  |  |  |  |  |  |  |  | CED student and CBO staff |
| 4.2.2 Recruitment of AVML project staff |  |  |  |  |  |  |  |  |  |  |  |  | CED student, CBO staff |
| 4.2.3 Conduct monitoring and evaluation of project implementation (Midyear and Annual evaluation). |  |  |  |  |  |  |  |  |  |  |  |  | CED student, CBO staff and Marketing expert. |

**Source:** Research Findings, 2017

* 1. **Project Implementation Report**

The AVML project was executed in a participatory approach whereas all target beneficiaries were well involved during the course of implementation phase. The STETIANA as host CBO has worked in collaboration with the Agriculture department to provide technical know-how in promoting African Eggplant value chain production. The implementation was categorized into four steps. Firstly, build awareness and inauguration of AVML project to stakeholders including the communities, horticulture producers, LGA, CBO leadership and staff.

Secondly, foster partnership with other development actors such as the government and NGOs for project resource contribution. Third step was to build capacity of African Eggplant Producers on aggregation value chain production and market access. And the fourth step was to do project monitoring and evaluation to assess if the intended objectives are met or not and propose the ways forward for unmet targets.

The AVML project goal was to contribute toward improved economic wellbeing of African eggplant smallholder’s farmers and their families in Ulaya by June 2017. Two major impacts were expected to be achieved after the project execution. The reporting is based on planned targets against achievement of objectives using the agreed standard indicators in project logframe as indicated in table 27. The first objective was to realize increased household income of horticulture farmers as the result of enhanced horticulture value chain by June 2017. To achieve this objective, the CED student in collaboration with implementing CBO have formulated five African eggplant producer groups with total of 100 members who were then trained on improved production techniques.

Now about 200 African eggplant producers including adopters are knowledgeable on value chain productivity and profitability are using their capacity on value chain horticulture production. According to monitoring data, about 728 tons of African eggplant were aggregated and sold in a collective way to Dar es Salaam city markets. This was the average of 14 tonnes per week which were sold to the Kariakoo market in Dar es Salaam.

In trying to build their capacity, these producers were also supported with new innovation –greenhouse so that during the rainy season they continue selling other horticulture crops such as tomatoes and cucumber to supply the market. During the course of implementation, World Vision in collaboration with Kilosa District under agriculture department has constructed the one greenhouse to the strengthened producers who were the AVML project beneficiaries.

The second objective of AVML project was to ensure the improved market linkages of African Eggplant producers, service providers and other relevant stakeholders. In the effort of achieving this, the project had to empower African Eggplant Producers with improved market literacy skills whereby 98 out of 100 planned African eggplant producers were trained on business/market literacy skill sets. As a result of training conducted, more than 150 farmers including new adopters were aggregating production for collective selling of products to buyers. The established 15 Eggplant's collective centres were so beneficial to small scale farmers, because it was agreed that Wednesday and Friday in every week to be the days for everyone to collect his/her produce with names on luggage to the centre before the truck arrives for loading. During this project life, 728 tons of targeted 364 tons of African Eggplant produces were sold to markets by producers in 12 months i.e. 14 tones by week. The targets were overachieved by 100% that means the quantity aggregated twice as much as planned.



**Figure 4.1: African Eggplant Produces at the Collective Centres Waiting for Truck to be transported in Market**

Of the agreement, once collection of African Eggplant produce is done, and marked with the name of individual seller, then it was the responsibility of buyer to pay the producers through their mobile transactions such as M-pesa, Tigo-pesa and Airtel Money. This achievement was contributed by some factors as results of implemented activities which include the increased business and marketing skills among producers; building relationship and trust between buyers and eggplant producers. That more than 100 producers are currently utilizing business and market literacy skills and it was used to be before the project.



Figure 4.2:A Truck Loaded With Bags of African Eggplant Produce at Collection Centre in Ulaya

Figure 4.1, 4.2 and 4.3 is evidence that African eggplant growers are now ensured with markets as result of trust and good relationship built during the implementation of AVML project. This was also contributed by skilled local market facilitators who were selected among them and they have roles to search for markets and provide feedbacks to the producers about the market information. This has helped farmers from being interfered by brokers in the value chain system. The representative producers were facilitated to attend two day exposure visits to local and district market centres for improving their marketing skills including gaining power of bargaining and negotiation.

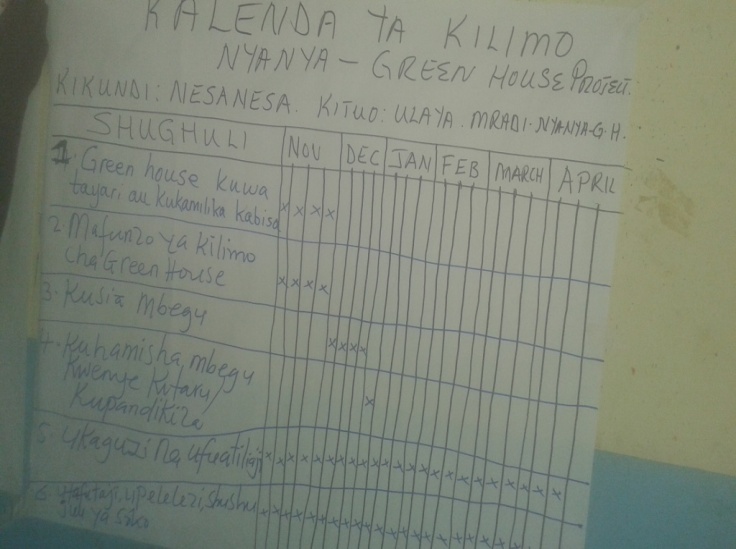
Also the LMFs have trained producer groups on the importance of working together as collectives for market power relationship. It is very clear that working in individualism approach reduces bargaining powers to farmers and thus possess less decision in price settings and ultimately dumps their produce at throw away price. African eggplant producers were trained on win-win market strategies by breaking the long chain of brokers which have long-time discriminated farmers from getting less income in horticulture subsector. During the training, the participants identified some barriers that hindered producers to access market which include informal brokers from village to big markets, low knowledge on market skills and poor organization of producer groups.

All of them (brokers/intermediate buyers) want to gain income by suppressing small-scale farmers through false market information. The project has helped farmer’s access market directly or through few formal middlemen. There is a realized increased income in a household dealing with Africa eggplant “Nyanya chungu” production. The producers can now sell up to four bags *(roba in Swahili)* of 50kgs per week which fetches 35,000TZS per roba. Therefore, the average income of 560,000TZS per month is a great success in regard to economic development. This earning is greater even than the highest amount (500,000Tsh) assessed (Table 7) during community need assessment.

With increased income, households can now provide well for their families with necessary needs including the school fees, afford health services, clothes and building decent affordable houses. Income poverty is now reduced among horticulture communities, increased food security as families could not sell the reserved food due to alternative means of income initiated to them through AVML project.

The achievement of project objectives was also geared by the well-established Value Chain Stakeholder networks which include the technical experts in value chain, representative producer group’s leaders, input suppliers, transporters, buyers, NGOs and LGA. These stakeholders have conducted meeting to discuss success and challenges related to project and provided regular way forwards for future improvement. The successful of project achievement was following the strengthened CBO management and project staff regarding the project management skills.

In general, the implementation of project activities was carried out in a participatory way, and all stakeholders have shown their commitment toward achieving the project goal. It is now realized that there is an increase in economic capacity of sustained lives of families in Ulaya community especially those engaging in African eggplant farming.



**Figure 4.3:Pictures Showing Farmer’s Training on Market Literacy Skill**

# CHAPTER FIVE

# 5.0 PROJECT PARTICIPATORY MONITORING, EVALUATION AND SUSTAINABILITY

* 1. **Introduction**

This chapter narrates the usefulness of project participatory monitoring, evaluation and sustainability. Participatory monitoring and evaluation is a process through which stakeholders at various levels are engaged in monitoring or evaluating a particular project, share control over the content, the process and the results of the monitoring and evaluation activity and engage in taking or identifying corrective actions. It focuses on the active engagement of primary stakeholders (World Bank 2010).

Participatory Monitoring and Evaluation is one of many approaches to ensure that the implementation of different projects within the action plan or smaller individual projects leads to the expected outcomes. As with all other monitoring and evaluation elements, the process for PM&E has to be prepared prior to project implementation (Philip et al. 2008). Project monitoring is the regular systematic collection and analysis of information to track the progress of project implementation against pre-set targets and objectives.

Regular monitoring was carried out to check if the project targets are progressing as planned and corrections are made for the identified gaps. Monitoring and evaluation process was based on pre-set benchmarks on AVML project M&E plan including the performance indicators, data collection methodology, source of data and frequency of data collection. This chapter is divided into three major subjections which include the participatory monitoring; participatory evaluation and project sustainability.

* 1. **Participatory Monitoring**

Participatory monitoring refers to regular gathering information of project progress with the involvement of the partners and members of the community groups during the course of project implementation. Normally, participatory monitoring is transparent and fosters project sustainability as the partners and the beneficiaries will sustain the project even after the phase-out. Monitoring was done at the project output and activities levels whereby all partners understood the project objective indicators and used various techniques and methods to truck project progress.

Participatory monitoring was intended to monitor the implementation of project activities and outputs indicators if there were on good truck towards achieving the project outcomes and goal. Monitoring of achievements against planned targets during the course of implementation of activities including monitoring of training conducted to horticultural producers, eggplant production outputs, value chain actors, market access and information and strategic infrastructures constructed to support effective horticulture farming, African eggplant in particular. Being participatory, monitoring tools were prepared in collaboration with CBO members who are the key player in implementation of AVML project.

Monitoring tools are forms that capture all the intended indicators to be trucked to measure the progress of the project. Therefore, the involvement of CBO members and leaders of African Egg-plant producers in field visits and in all stages of project implementation has exposed them to understand the progress of the project, hence increases transparency and creates room for decision making process.

* + 1. **Monitoring Information System**

MIS is designed to capture data, process and disseminate information in a systematic way to enables project managers to plan, monitor and evaluate the operations and performance of the project. It is a data base that makes information available for decision making processes. It is a result of effective monitoring system. Monitoring system enables project managers to measure trends of various indicators based on the data collected in the field in a regular basis during the course of implementation.

For AVML project, the Monitoring and Information System designed to capture data and disseminate information of the preset indicators as indicated in the column of Objectively Verifiable Indicators (OVIs) in the project logical framework. In regard to this project the information required include the Quantity (tones) of African eggplant aggregated and sold; African eggplant producers trained; exposure visits conducted; African Eggplant producer group formulated; number of producers using business and market skills; producers linked to market and have access to market information and Eggplant's collection centers established.

Other information includes a list of value chain stakeholders developed; CBO Staff trained; evidence of market information networks and active Value Chain stakeholder meetings held. This information is helpful in decision making process. It helps the project manager to plan, monitor, evaluate and report project operations easily. Similarly, through this system the CED student together with STETIANA CBO members and representative of Eggplant’s producers had the capacity to prepare a daily recording sheet that allowed everyone to see the trends of progress towards its objectives.

* + 1. **Participatory Monitoring Methods**

Several methods and techniques were used to involve partners including beneficiaries themselves, implementing CBO members, eggplant producers and government extension officers in monitoring of project activities. Self-Assessment Methods and PRA key principles and techniques were deployed to collect data and information through key informants interview, field visits and observation and documentation of most significant stories.

* + 1. **Participatory Monitoring Plan**

This plan was prepared together with the implementing CBO leadership to have a road map for doing effective follow up of project activities. The plan was developed based on the project objectives and indicators as indicated in the table 5.1.

Table 31:Participatory Monitoring Plan

| **Objective** | **Output** | **Activity** | **Indicators** | **Data source** | **Methods** | **Actual time** | **Responsible person** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1. Increased household income of horticulture farmers as result of enhanced horticulture value chain by June 2017. | 1.1 Knowledgeable African eggplant producers on value chain productivity and profitability. | 1.1.1 Introduction and launching of AVML project to local community leaders in Ulaya village; | Number of event held | CBO progress report | Awareness meeting | July 2016 | MCED student and STETIANA Management. |
| 1.1.2 Facilitate the formulation of horticulture (eggplant) producer groups. | Number of eggplant producers formed | CBO progress report | Awareness meeting | July 2016 | STETIANA CBO staff |
| 1.1.3 Capacity building to 100 African-Eggplant farmers on value chain analysis and production skills in Ulaya Village | Number of producers trained | CBO progress report | Training | July 2016 | CED student and CBO leaders. |
| 1.1.4 Construction of one 30m by 8m demo greenhouse | Number of Greenhouse constructed | CBO progress report | Resource mobilization | August 2016 | CED student, CBO leaders and district irrigation engineer. |
| 1. Improve the market linkages of African Eggplant producers with markets, service providers and other relevant stakeholders by July 2017 | 2.1 African Eggplant Producers have improved market literacy and build linkages with markets and other services providers | 2.1.1 Identify four local Market Facilitators; train them on market literacy skills and to work with producers to establish 15 African Eggplant's collective centers. | Number of LMF trained | CBO progress report | Direct contact meeting | July 2016 | CED student and marketing expert |
| 2.1.2 Conduct two day exposure visits to local and district market centers for improving the marketing skills including gaining power of bargaining and negotiation; | Number of visits conducted | CBO progress report |  | August 2016 | CED student, CBO staff and Marketing expert. |
| 2.1.3 LMF trains producer groups on the importance of working together as collectives for market power relationship. | Number of producer groups trained | CBO progress report | Lecture  Group discussion | Sept 2016 | CED student, CBO staff and Marketing expert. |
| 2.1.4 Train African eggplant producer groups on Market Literacy skills including the gaining power of bargaining and negotiation for market win-win relationships; | Number of producer groups with market literacy skills | CBO progress report | Lecture  Group discussion | Sept 2016 | CED student, CBO staff and Marketing expert. |
| 2.2 Value Chain Stakeholder network established and functional. | 2.2.1 Facilitate the establishment of Value chain stakeholder network including representation from producer groups. | Number network established | CBO progress report | Workshop  Group discussion | Sept 2016 | CED student, CBO staff and Marketing expert. |
| 2.2.2 Conduct two Value Chain stakeholder meetings to address systemic African Eggplant Value Chain constraints/challenges. | Number of meeting conducted | CBO progress report | Workshop  Group discussion | October 2016 and March 2017 | CED student, CBO staff and Marketing expert. |
| 2.2.3 Local Market Facilitators conduct market intelligence on monthly basis for sharing market information to horticulture producers | Number of LMF | CBO progress report | Lecture  Group discussion | October 2016 | CED student, CBO staff and Marketing expert. |
| 1. Enhanced capacity of implementing CBO, producer groups and AVML Staffs on improved production volumes, quality and marketing of African Eggplant products | 3.1 Skilled CBO leaders, LMFs and project staff on quality project management. | 3.1.1 Training to three CBO leader on project management | Number of leaders trained | CBO progress report | Lecture  Group discussion | Sept 2016 | CED student, CBO staff |
| 3.1.2 Train Local Market Facilitators for them to conduct coaching to producer groups and leaders on negotiation, market information, understanding prices, relationship building and networking with service providers. | Number of LMF trained | CBO progress report | Lecture  Group discussion | Sept 2016 | CED student, CBO staff and Marketing expert. |
| 3.1.3 Conducting two days training to project staff on project implementation strategies and monitoring and documentation of impacts. | Project staff trained | CBO progress report | Lecture  Group discussion | January 2017 | CED student, CBO staff and Marketing expert. |
| 4 Enhanced fostering of sustainability of project outcomes through strengthening capacity of CBO leaders on transition strategic management and leadership skills by June 2017 | Output 4.1 Increased STETIANA CBO Leadership skills on project sustainability | 4.1.1: Train three CBO leaders on leadership and transition strategic management skills | Number of CBO leaders trained | Training report | Documentary review | June 2016 | CED Student |
| 4.1.2 Train eggplant producer group’s leaders on sustainable eggplant production and sustaining market supply. | Eggplant producer group’s leader trained on sustainability | Training report | Documentary review | June 2016 | CED Student |
| 4.2 AVML Project Managed Effectively | 4.2.1 Facilitate procurement of project assets/equipment and other project costs; | Assets/equipment distributed | CBO progress report |  | September 2016 | CED student, CBO staff and Marketing expert. |
| 3.2.2 Recruitment of AVML project staff | Staff recruited | CBO progress report |  | July 2016 | CED student, CBO staff and Marketing expert. |
| 4.2.3 Inauguration of AVML project to stakeholders | List of participant’s | CBO progress report | Meeting | August 2016 | CED student, CBO staff and Marketing expert. |
| 4.2.4 Conduct monitoring and evaluation of project implementation (Midyear and Annual evaluation). |  | CBO progress report |  | All months  July 16 to June 2017 | CED student, CBO staff and Marketing expert. |

**Source:** Research Findings, 2017

* 1. **Participatory Evaluation**

Participatory evaluation is a process through which stakeholders at various levels engage in evaluating a particular project, program or policy, share control over the content, the process and the results of the M&E activity and engage in taking or identifying corrective actions. It focuses on the active engagement of primary stakeholders (World Bank, 2010).

Campos and Coupal (1996, p. 8) argued that one of the main functions of participatory evaluation is to provide stakeholders and project manager with information to assess whether the project objectives have been met and how the resources have been used, in order to improve project implementation and make critical decision about project funding. Data was collected through interviews with households and key informants, focus group discussions, and field observation. The eggplant producers provided feedback on collected data and realized the changes of horticulture farmers. Being participatory, evaluation process principally involve stakeholders at different levels who should work together to assess whether the project is achieving its objectives and guide them to make corrective action required for further improvement.

In course of action while implementing the African Eggplant Value chain and Market Access Project the community members, smallholder farmers, CBO members, and other stakeholders were involved in the community needs assessment exercise they found that establishment of AVMLP was worthwhile for sustainable economic development of Ngogwe’s smallholder farmers. All partners have jointly reflected on the pre-set project goal and objectives that need to be achieved and evaluated during the course of project implementation. They agreed on the indicators to be measured and discussed along all logistics referring when to conduct evaluation, what, how and who will be responsible. With the assistance of CED student they prepared an action plan agreed to conduct mid evaluation after six months and final evaluation when the project is twelve month span.

* + 1. **Performance Indicators**

These are pre-set targets that show progress towards achieving project objectives. It answers the questions “where are we now; what were planned has happened or is happening?” Tracking of indicators was jointly done by involving the project staff and members of the CBO through regular assessment and follow ups. About 17 indicators both immediate and long term were tracked though it was easy for the immediate ones because tracking high level indicators need longer time to trace its performance.

Therefore, the measurement of performance is important because it identifies current performance gaps between current and desired performance and provides indication of progress towards closing the gaps (Weber et al, 2005). According to Weber the carefully selected key performance indicators identify precisely where to take action to improve performance. The below table shows the selected key performance indicators, targets set, progress of what has happened and who was responsible to measure the performance of the project.

**Table 32: Eggplant Value Chains and Market Linkage Project Performance Indicators**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Objectives** | **Target Indicators** | **Indicator performance progress** | **Means of Verification (MOV)/Data Source** | **Methodology** | **Responsible** |
| Project Goal: Improved economic wellbeing of African eggplant smallholder’s farmers and their families in Ulaya by June 2017. | Proportion of households where at least one adult is earning a consistent income, to meet household needs, through sale/exchange of own horticulture produce. | Monitoring report tells that eggplant farmers can now earn money on weekly basis to meet their families’ basic needs. | Project evaluation reports | Household questionnaire | MCED student and STETIANA Management |
| Outcome 1: Increased household income of horticulture farmers as result of enhanced horticulture value chain by June 2017. | Quantity (tones) of African eggplant aggregated and sold | About 14 tons supplied a week to the market. The plan was 280 tons per year but 728 tons were aggregated. More than 100% performance | Project monitoring and evaluation reports | Daily sales records | CED student and marketing expert |
| Proportion of African-eggplant producers using their capacity on value chain horticulture production. | More than 150 do aggregate production and supply market with eggplant produce. 100% performance. | Project evaluation reports | Focus group discussion | CED student, CBO staff and Marketing expert. |
| Output1.1: Knowledgeable African eggplant producers on value chain productivity and profitability. | 100 African eggplant producers trained in improved production techniques. | This was achieved by 100%. Currently more than 150 farmers are engaged in eggplant production. | Training report | Documentary review | CED student, CBO staff and Marketing expert. |
| Two exposure visit conducted | Two exposure learning done which is 100% performance. | CBO report | Documentary review | CED student, CBO staff and Marketing expert. |
| Five African Eggplant producer group formulated. | All five groups trained and their members engaged in the aggregation production. | CBO report | Documentary review | CED student, CBO staff and Marketing expert. |
| Outcome #2: Improved the market linkages of African Eggplant producers with markets, service providers and other relevant stakeholders by June 2017 | 280 tons of African Eggplant produces sold to markets by producers in 10months i.e. 7 tones by week. | The production was as twice as much. Performance is over 100%. | Daily Sales and production records | Documentary review | CED student, CBO staff and Marketing expert. |
| 100 producers using their business and market skills | Trust between producers and buyers are improved. Producers collect their produces to the collective centers with names labeled on languages and receive payment through mobile transaction. 100% performance. | CBO training report | Documentary review | MCED student and STETIANA Management |
| 100 producers linked to market and have access to market information. | Producers linked to Dar es Salaam markets. They sell their produce through trusted middlemen buyers. | CBO training reports | Documentary review | CED student and marketing expert |
| Output 2.1: African Eggplant Producers have improved market literacy and build linkages with markets and other services providers | 100 trained African eggplant producers on business/market literacy skill sets | Done by 100% | Training report | Documentary review | CED student, CBO staff and Marketing expert. |
| 100 African Eggplant producer aggregating production for collective selling of products to buyers. | This was over achieved. More than 150 farmers aggregate production. This is over 100% performance. | Production records | Documentary review  FGD | CED student, CBO staff and Marketing expert. |
| 15 Eggplant's collective centers established. | All of them established. | Visit report | Field Observation | CED student, CBO staff and Marketing expert. |
| Output 2.2: Value Chain Stakeholder network established and functional | A list of value chain stakeholders developed. | List of stakeholders is in place and their roles stated well in the report. | Monitoring reports, PG meeting minutes, Training reports | Documentary review  FGD | CED student, CBO staff and Marketing expert. |
| Evidence of market information networks | Four local market facilitators probe for market information. | CBO report | Focus group discussion | CED student, CBO staff and Marketing expert. |
| Four active Value Chain stakeholder meetings held. | This was done by 50% | Meeting minutes | Documentary review | MCED student and STETIANA Management |
| Outcome #3: Enhance capacity of implementing CBO, producer groups and AVML Staffs on improved production volumes, quality and marketing of African Eggplant products. | Sustainable African Eggplant production with quality and volume required by market. | The volume was met -14 tons were continuously supplied to the market. | Project evaluation reports | Documentary review | CED student and marketing expert |
| Output 3.1 Skilled CBO leaders, LMFs and project staff on quality project management. | Three CBO Staff trained | Done by 100% | List of participants | Documentary review | CED student, CBO staff and Marketing expert. |
| Four LMFs have marketing coaching skills | Done by 100% | Training report | Documentary review | CED student, CBO staff and Marketing expert. |

**Source:** Research Findings, 2017

* + 1. **Participatory Evaluation Methods**

Participatory evaluation of AVML project used PRA and beneficiary assessment methods in engaging community in the evaluation of the project objectives. Beneficiary assessment is a qualitative research tool used to improve the impact of development operations by gaining the views of intended beneficiaries regarding a planned or on-going intervention (Salmen 1999). Beneficiary assessment techniques use conversational interviewing and focus group discussions on changes and impacts regarding the intended project objectives to be achieved.

PRA was used to compare the situation before and afterthrough the use of community mapping, problem ranking, wealth ranking, seasonal and daily time charts. Through transect walk and field visits other methods like Focus Group Discussion, Direct Observation and Workshop were of great paramount importance techniques. Actually before the actual evaluation process, the key indicators to be measured were clearly understood by all partners and agreed based on pre-set objective indicators in the logical framework.

In regard to AVMLP, the participatory evaluation had focused on progress in work plan, Implementation of planned activities, Achievement of Objectives, Project success, Impact of the project and Project sustainability. In order to have a clear understanding and flow of information, a check list were prepared to guide the discussion during the interviewing beneficiaries regarding the success of the project. The key informants include the CBO members, project staff, eggplant producers; market and supply chain actors. Observation was used to examine the information collected during the interviews including verification of African eggplant collection centres and production aggregated for feeding the market demands. The collected data and information involved investigating project performance in line with participatory evaluation objectives. That is to check whether the project has resulted to bring impacts to the targeted population.

The general evaluation results show that the target population have been impacted by the project as their lives have been changed. Every farmer is now busy with horticulture farming whether are tomatoes, African eggplant, and chill paper because we are assured with market. “Every week on Wednesday and Friday we can load horticulture produce of up to 14 tons trucks (Fusso type) which normally takes our produce to Dar es Salaam market. We are paid through mobile transaction after our produces have been taken to market. This has been possible due to good relationship and trust we have between producers and buyers. We sale our product in a collective methods to supply the quantity required per week (14 tons) which motivated more farmers to sustainable engage in horticulture farming especially the eggplant crop”…narrated Makata 52 years African eggplant farmer.

All these impacts was resulted by delivery of capacity building conducted to the implementing CBO members, eggplant producer groups and other partners in value chain in which the knowledge disseminated caused a tremendous trickledown effect of development to small holder African eggplant and other horticulture growers. The implanting CBO members has worked together with the Community Development Officer and village agricultural Officer as the used various producer groups who are also the saving groups to do mobilization on the economic importance of horticulture value chain for market competitiveness. All planed project objectives and targets were met as intended by 100%.

* + 1. **Project Evaluation Summary**

More than 98 percent of the project activities have been accomplished as this project was executed for the duration of 12 months. The remaining 5 percent is for project activities related to project sustainability, follow up of project impacts especially tracking of high level indicators i.e. goal and outcome indicators which need sometimes to realize changes. All tasks assigned during the project activity execution were completed by 100 percent as indicated in the Table 5.3.

**Table 33: Project Evaluation Summary showing the Project Accomplishment**

| **Objective** | **Output** | **Activity** | **Indicators** | **Expected Outcome** | **Actual Outcome** |
| --- | --- | --- | --- | --- | --- |
| Increased household income of horticulture farmers as result of enhanced horticulture value chain by June 2017. | 1.1 Knowledgeable African eggplant producers on value chain productivity and profitability. | 1.1.1 Introduction and launching of AVML project to local community leaders in Ulaya village; | Number of event held | Stakeholders understand the content of project | The project was well introduced to Community leaders |
|  | 1.1.2 Facilitate the formulation of horticulture (eggplant) producer groups. | Number of eggplant producers formed | 10 producer groups formulated | 10 eggplant producer groups are functional/operational with more than 100 producers |
|  | 1.1.3 Capacity building to 100 African-Eggplant farmers on value chain analysis and production skills in Ulaya Village | Number of producers trained | 100 producers trained | 100 producers have knowledge and practicing collective selling of African eggplant produce. |
|  | 1.1.4 Construction of one 30m by 8m demo greenhouse | Number of Greenhouse constructed | At least one producer group uses greenhouse for vegetable production. | One greenhouse 30m\*8m benefiting farmers from selling of various vegetables |
| Improve the market linkages of African Eggplant producers with markets, service providers and other relevant stakeholders by June 2017. | 2.1 African Eggplant Producers have improved market literacy and build linkages with markets and other services providers | 2.1.1 Identify four local Market Facilitators; train them on market literacy skills and to work with producers to establish 15 African Eggplant's collective centers. | Number of LMF trained | 15 market facilitators have skills and coaching groups on the access of market information | Local market facilitators who are the community based volunteers formulated 15 selling centers and inform the groups about the market information. |
| 2.1.2 Conduct two day exposure visits to local and district market centers for improving the marketing skills including gaining power of bargaining and negotiation; | Number of visits conducted | Two visits to be done | Two visits –at local and district markets were held and group representatives enjoyed the trip. |
| 2.1.3 LMF trains producer groups on the importance of working together as collectives for market power relationship. | Number of producer groups trained | 100 planned | 98 trained but more than 150 adopted |
| 2.1.4 Train African eggplant producer groups on Market Literacy skills including the gaining power of bargaining and negotiation for market win-win relationships; | Number of producer groups with market literacy skills | 100 planned | 98 trained but more than 150 farmers adopted and selling their produce in collective manner |
| 2.2 Value Chain Stakeholder network established and functional. | 2.2.1 Facilitate the establishment of Value chain stakeholder network including representation from producer groups. | Number network established | One network | Achieved as planned |
| 2.2.2 Conduct two Value Chain stakeholder meetings to address systemic African Eggplant Value Chain constraints/challenges. | Number of meeting conducted | Two meetings | Held two meetings |
| 2.2.3 Local Market Facilitators conduct market intelligence on monthly basis for sharing market information to horticulture producers | Number of LMF | Four was target | Four of them trained |
| Enhance capacity of implementing CBO, producer groups and AVML Staffs on improved production volumes, quality and marketing of African Eggplant products by June 2017. | 3.1 Skilled CBO leaders, LMFs and project staff on quality project management. | 3.1.1 Training to three CBO leader on project management | Number of leaders trained | Target was three leaders | Training was conducted to four leaders |
| 3.1.2 Train Local Market Facilitators for them to conduct coaching to producer groups and leaders on negotiation, market information, understanding prices, relationship building and networking with service providers. | Number of LMF trained | Four were targeted | All of them trained |
| 3.1.3 Conducting two days training to project staff on project implementation strategies and monitoring and documentation of impacts. | Project staff trained | Two staff targeted | All of them trained. |
| 4. Enhanced fostering of sustainability of project outcomes through strengthening capacity of CBO leaders on transition strategic management and leadership skills by June 2017 | Output 4.1 Increased STETIANA CBO Leadership skills on project sustainability | 4.1.1: Train three CBO leaders on leadership and transition strategic management skills | Number of CBO leaders trained | Three CBO leaders skilled on sustainability aspects | Objective attained. |
| 4.1.2 Train eggplant producer group’s leaders on sustainable eggplant production and sustaining market supply. | Eggplant producer group’s leader trained on sustainability | Producer groups have strategy to sustain production | Supply of eggplant to markets sustained. |
| 4.2 AVML Project Managed Effectively | 4.2.1 Facilitate procurement of project assets/equipment and other project costs; | Assets/equipment distributed |  |  |
| 4.2.2 Recruitment of AVML project staff | Staff recruited | Two staff | Two staff out of the group members |
| 4.2.3 Inauguration of AVML project to stakeholders | List of participant’s | 40 people oriented with the project | Done as per plan |
| 4.2.4 Conduct monitoring and evaluation of project implementation (Midyear and Annual evaluation). | Track indicators | Twice | Twice |

**Source:** Research Findings, 2017

* 1. **Project Sustainability**

Project sustainability is the capacity of a project to continue functioning, supported by its own resource (human, material and financial) even when external source of funding have ended. It is commonly known as a state whereby the project functions will totally depend on its own resources. However, it is very important to the Organization/CBO/NGO to develop its own definition of sustainability, the links between organization’s own contexts, focus, and the state of affairs.

* + 1. **Institutional Sustainability**

There are clearly defined institutional arrangements associated with this project. There is strong institutional sustainability of African eggplant value chain and market linkage project whereby the existing CBOs and producer groups play roles to ensure the already established systems continues to benefit communities. The implementing CBO called STETIANA have permanent registration and built capacity on leadership and management skills. All groups have shared vision and purpose, norms and behaviours practices, invested capital and inputs. The structure and culture of groups and CBOs are enough institutional strength of project to be sustainable.

* + 1. **Financial Sustainability**

The project uses the groups self-saving money –revolving money from saving groups where community members access loan for African eggplant production. The selling of eggplant produce is sustainable due to established collective centers whereby farmers get money in a regular form as the production continues throughout the years and therefore the money for production is also readily available.

* + 1. **Political Sustainability**

The project is directly supporting the Tanzania Agricultural Policy, the Nation Strategy for growth and Reduction of Poverty II. The government through its leaders from lower to higher tiers has willingness to support the project. There are strong group leaders who encourage the leads producers for regular meetings and share ideas on how to move forward toward their shared vision and purpose. The local leaders at village level; ward Councilors, Executive Officers at village, ward level and District Council leaders provide continuous guidance and support to African eggplant producers for sustainable livelihoods of horticulture farmers.

**CHAPTER SIX**

* 1. **CONCLUSION AND RECOMMENDATIONS**

**6.1 Introduction**

This chapter gives a summary of the African Eggplant Value Chain and Market Linkage Project for Sustainable Economic Development of Farmers in Ulaya Village. It provides conclusion and recommendations of the project based on the stages of the project cycle management and its performance analysis carried out from project identification, implementation and monitoring results. It covers part of Community Needs Assessments, Problem identification, Literature review, Project implementation, Participatory Monitoring, Evaluation and sustainability of the project. The summary of conclusion and recommendations will in future enable researchers, decision makers, policy makers and other developments project managers in the horticulture value chain sector to access the necessary information for decision making.

* 1. **Conclusion**

The AVMLP is directly supporting the Tanzania Agricultural Policy (URT, 2013), Tanzania Horticultural Development Strategy 2012- 2021, the National Strategy for growth and Reduction of Poverty II and Tanzania Development Vision 2025. This project was initiated following the CNA conducted in collaboration with the Ulaya community and noticed the possibility of establishing African Eggplant value chain and market linkage project for improving the household income, hence bringing sustainable economic development. The CNA results revealed existence of poverty among the horticulture farmers despite the availability of water and productive land for horticulture farming. The average monthly income was low and most of them (98%) were poor, living below poverty line of $1.25 per day. The project addressed the economic challenges including weak economic capacity due to inadequate capital, unreliable markets for horticulture produces, poor entrepreneurship and value chain skills through various capacity building conducted to targeted horticulture groups on African Eggplant value chain. The project’s objectives were attained within a year of implementation.

It is worthy concluding that efforts to promote value chain by spurring collective actions work. In this project about 200 African eggplant producers were able to organize themselves to grow African Eggplant (ngogwe) and sell the produce collectively whereby 15 collection centers were established along the Kilosa-Mikumi main road. Up to 14 tons of African eggplant produce was supplied to Dar es Salaam market per week. At least a famer was able to supply 100kg bag (“roba” in Swahili) of eggplant marked with their names for later payments and traceability. With this improved value chain and market assurance, farmers were and are motivated to produce African eggplant in an aggregated way and it was easy to supply the demanded volume twice a week. Farmers are now able to support their families financially and are able to provide basic needs such as food, clothes and even building decent houses due to sustainable farming of horticulture which also resulted to sustainable community economic development.

Among contributing factors of poverty to African eggplant small holder farmers; inadequate knowledge on local value chain approach was the leading gap. The theoretical and empirical literature reviews have shown that promotion of horticulture value chain is contributing towards increased household income of farmers. It was easy to promote the aggregated horticulture production through collective methods to supply the market. Therefore, the emerged gap of weak linkage between the producers and the buyers were broken and instead there were improved good relationship between the value chain actors; more efforts were put on building more trust, enhancement of clear market information and emphasis on collective selling of their produce through agreed centers.

Therefore, the information gathered during the CNA exercise and literature review made the CED student to establish the AVML project in Ulaya village with considerable criteria that there was readiness of community members towards economic development, reliable water for horticulture activities, available assets and opportunities to facilitate the operation of the project. Partners like the Kilosa district, World Vision, saving groups, and other NGOs were helpful in the mobilization of groups to be engaged in commercial horticulture for community economic development.

The project has achieved its four major objectives whereby twenty activities were implemented as per plan. In the process of project implementation it was realized that community and CBO members were capable enough to manage the project in absence of CED student. During regular reflection it was realized that majority of farmers were motivated to engage themselves in African eggplant farming in small plots of their capacity given the factor that there is reliable market and farmers are willing to aggregate production and do sell their produce in a collective manner to accommodate market demand. The impacts of the project has remained sustainable due to fact that farmers have engaged themselves in saving activities whereas they have revolving fund that to be used as continuous capital for horticulture farming and be able to meet unpredicted expenses and other project cost.

Conclusively, being of paramount importance, the African eggplant value chain and market facilitation initiatives has contributed to the increased household income of small holder farmers of Ulaya community and ultimately the improved standard of life in families is now realized as they can currently afford to access basic needs.

* 1. **Recommendations**

Being realized as good learning and experience, the African eggplant small holder farmers have sustainably made substantial benefits from this project. African eggplant value chains with market driven production has been creating a wider employment and income opportunity to the rural households. It is recommended that farmers to increase the scale of production and other development partners including the government to scale up the promotion of African eggplant to other villages in Ulaya Division. Nevertheless, apart from eggplant promotion, it is recommended that farmers have to diversify with other vegetables like chill papers and tomatoes that have a production advantage and wider market potential in nearby markets including in Dar es Salaam. The diversification of horticulture will increase the purchasing power of vegetable growers and ultimately be able to meet their basic needs.

The trust between African eggplant producers and major buyers was high but risky to farmers when the buyers opt not to pay them. The trust among them has been successful due to build firm mutual relationship between the producers and major buyers which is a starting milestone for sustainability. However, during the scale up of this project, it is recommended that there should be an institutional framework or arrangements like the written agreement/contracts that legalize the business held between the farmers and buyers who regularly buy African eggplant produce at bulky volume. To sustain aggregation production, African eggplant growers to use their revolving funds as potential capital for sustainable farming to ensure that market demands are met throughout the year.

Government through the ministry of agriculture need to allocate more extension officers to village level whereas from this project, the CED student learnt that among extension officers found in Ulaya ward, none of them had specialty in horticulture and never exercised value chain approach in maximizing economic benefits of small holder farmers. This project draws learning that it is necessary for the government to allocate at least one horticulturalist per ward which has a potential for horticulture farming in a country. In fact; horticulturalists can deliver strong extension services and by examples as compared to general extension officers. Focus on sustainable horticulture commercialization through value chain approach and a market driven production is of imperative importance. Moreover, successful commercialization could be effective if supported with an efficient marketing system. This missing gap should be government’s focus in providing extension services.

The increase in participation of farmers in production and marketing of African eggplant manifested by increasing number of consumers which in turn lead to more market actors. Marketing strategies through an established registered institution such a farmers’ association or cooperatives should be developed to provide a sustainable platform for farmers’ training on modern production techniques, quality control and standardization of selling units, in order to links farmers with the current market outlets in the supermarkets and big factories that engage in processing African eggplant.

Cost benefit analysis was not much considered in horticulture farming. Farmers were always not doing record keeping of production costs and sales to understand whether their making profit or loss. Therefore; sales of production volumes should be accompanied by proper record keeping. It is not enough to encourage African eggplant farmers to increase production for market demand but farmers need to work together in order to have a strong voice and unity as they need to negotiate for favorable prices for their produce. This is because a successful marketing is important in the effort of creating sustainable community economic development.

Finally, this study has focused on development of value chain in a small scale “village” though it has indirectly impacted the lives of people in nearby villages. The reasons for focusing in a small scale were resource scarcity and the urge to master all aspects of development for documentation and study. Therefore, this study recommends development partners in value chain to learn from this project for scaling up to other areas for enhancing sustainable economic development of communities in Tanzania.

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# APPENDICES

APPENDIX 1: STRUCTURED QUESTIONNAIRE FOR HEAD OF HOUSEHOLD

Please tick [√] against your correct choices in the following questions.

**PART A: DEMOGRAPHIC INFORMATION**

1. Sex 01) Male ( ) 02) Female ( )

2. Age range 01) 15-25 ( ) 02) 26-35 ( ) 03) 36-45 ( )

04) 46-55 ( ) 05) 56 -65 ( ) 6) 65 > ( )

3. Number of household’s members

01) 1-3 ( ) 02) 4-7 ( ) 03)8-10 ( ) 04) 10+ ( )

4. Education level

01) None ( ) 02) Adult education ( ) 03) Primary education ( )

04) Secondary education ( ) 05) Technical education ( ) 06) Tetiary education ( )

5. Ocupation

01) Farmer ( ) 02) Livstock keeper ( ) 03) Employee ( )

04 Petty busines ( ) 05) Others ( ) Mention........…………………………

6. Household acreage ownership

01) < 1 ( ) 02) 1 – 2 ( ) 03) 3 – 5 ( ) 04) 5> ( )

7. Major crops grown

01) Simsim ( ) 02) Maize ( ) 03) Horticulture crops ( ) 04) Pegion peas ( )

**Part B: HOUSEHOLD INCOME ASSESSMENT**

8. Average monthly income

01) TZS. 0-100,000 ( ) 02) TZS. 101,000-200,000 ( ) 03) TZS.201, 000-300,000 ( )

04) TZS.301, 000-400,000 ( ) 05) TZS. 401,000-500,000 ( ) 06) 500,000> ( )

9. What viable project do you think would contribute to your income?

01) Sewing ( ) 02) Chicken keeping ( ) 03) Commercial horticulture ( )

04) Horticulture market facilitation ( ) 05) Dairy cow farming ( )

06) Food vending ( )

10. What is the expected outcomes of viable project in question (9) above?

01). Increased income and reduce poverty ( ) 02). Reduced dependency syndrome ( )

03). Create employment ( ) 04). Afford social services ( )

**PART C: ASSETS, OPPORTUNITIES AND CHALLENGES**

11. Which opportunity and asset among the following is important for your income generation?

(01) Livestock (02) Arable land (03) Water (04) Forest

12. Major challenge facing your income generating activities/projects.

01) Inadequate capital ( ) (02) Unreliable markets ( ) (03) Lacks entrepreneurship skills ( )

13. Where do you access loan for leveraging your income?

01) Bank ( ) 02) Registered SACCOS ( ) 03) VSLA/Saving groups( ) 04) Never taken a loan ( ) 05) Individual persons ( )

**PART D: MARKET ASSESSMENT**

14. Where do you sell (markets) your crops?

01) Village Market ( ) (02) District Market ( ) (03) Regional Market ( )

04) Market out of region ( )

15. Who is major buyer of your farm produces?

01) Middlemen ( ) 02) Individual people ( ) 03) Private companies ( )

16. How do you access markett information for your farm produces?

01) From neighbors ( ) 02) Phone Communication ( ) 03) Hears from middlemen ( ) 04) Radio/TV ( ) 05) Through Internet ( )

**PART E: SUPPORT AND CAPACITY ASSESSMENT**

17. Which skills do you need to increase your household income?

1) Investment ( ) 2) Saving and Loan ( ) 3) Entrepreneurship ( ) 4) Market literacy ( )

18. Do you receive any support from government and private institutions to improved your income gennerating activities?

01) YES ( ) 02) NO ( ) 03) I DONT ( )

19. If YES, which support do you receive?

01) Provision of loans ( ) 02) Entrepreneurship skills ( )

03) Instruments/infrastructures for strengthening production ( ) 04) Not applicable ( )

APPENDIX 2: CHECKLISTS FOR FOCUS GROUP DISCUSSION

INTERVIEW’S DATE \_\_\_/\_\_\_/2016 PLACE OF INTERVIEW \_\_\_\_\_\_\_\_\_

* + 1. Name of the Group/CBO: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    2. How many members of your Group \_\_\_\_\_\_\_\_\_ Male \_\_\_\_\_ Female \_\_\_\_\_
    3. When the group was started? (Year)
    4. Was it registered?
    5. When it was registered?
    6. What is the overall goal of CBO?
    7. What are the income activities being undertaken?
    8. Are the incomes generating activities undertaken profitable?
    9. Do you think the income you are earning from group business is adequate?
    10. Where do you access funds for your business?
    11. Have the CBO members received any kind of training related to the group activities?
    12. What are the challenges facing your common business?
    13. To what extent did the members benefited from the group income activities?
    14. What kind of support has CBO received from the Government/any other development institution?
    15. What kind of agricultural crops are economically viable and sustainable that can be beneficial to the farmers and other business people?
    16. What do you think can be done to improve the group economic performance?

APPENDIX 3: INTERVIEW GUIDE FOR GOVERNMENT OFFICIALS

DATE OF INTERVIEW \_\_\_\_\_/\_\_\_/2016 PLACE OF INTERVIEW\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What are the major economic activities for the community you lead?
2. Is there any initiatives or projects that provide support to IGA groups?
3. What kind of support?
4. How many both formal and informal CBO’s are dealing with income generating activities in your area?
5. What are strengths and weakness do the existing IGA groups experience in performing their economic activities?
6. What are the reasons for their weakness?
7. What measures has been taken by Government to support the IGA/CBO’s business operations.
8. Is there any specific programme established to improve the smallholder farmer’s products?
9. What kind of agricultural crops are economically viable and sustainable that can be beneficial to the farmers and other business people?
10. Kindly suggest some measures if undertaken can improve the performance of CBO’s business operations.

APPENDIX 4: MAP OF KILOSA DISTRICT SHOWING THE AREA OF STUDY

