

**TOMATO FARMING AS AN ALTERNATIVE SOURCE OF INCOME:
A CASE OF BUKANGA HAMLET IN MUSOMA MUNICIPALITY**

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**A DISSERTATION SUBMITTED IN PARTIAL FULFULMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER IN COMMUNITY
ECONOMIC DEVELOPMENT OF THE OPEN UNIVERSITY OF
TANZANIA**

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CERTIFICATION

The undersigned certifies that he has read and hereby recommend for the acceptance by the Open University of Tanzania (OUT) a dissertation titled, Tomato farming as an alternative source of income case study of Bukanga hamlet in Musoma Municipality.”In partial fulfillment of the requirements for the Degree of Master of Community Economic Development of the Open University of Tanzania.

.....

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DECLARATION

I, Baraka Wilson Thomas Indah, do 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 degree award.

.....

Signature

.....

Date

DEDICATION

This work is dedicated to my Beloved Father Thomas Okomo Indah

ACKNOWLEDGEMENT

In the name of GOD the more merciful and more precessions, it is the Almighty who gave me breath and led me in all my daily routine works especially in this research work which has come to an end. Let his name be praised!

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ABSTRACT

Participatory needs assessment was conducted in Bukanga ward in Musoma municipality in order to determine needs, opprtunities and challenges facing the community. Participatory research methods were employed. These included focus group discussion, observation, questionnaire, and in depth interview. Low income high and un employment rate were the main findings of research. Low income was the major stress and formed an area of intervention. The communities came up with opportunities which could help them to solve stresses. Tomato farming was an alternative source of income which was opted by the majority.

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LIST OF ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
BMU	Beach Management Unit
CAN	Community Need Assessment
CDO	Community Development Officer
CED	Community Economic Development
FAO	Food and Agriculture Organization
FGDs	Focus Group discussion
GDP	Gross Domestic product
HIV	Human Immunodeficiency Virus
LGA	Local government Authority
MC	Municipality Council
MEO	Mtaa Executive Officer
ND	New castle Disease
NGOs	Non-Governmental Organizations
NMB	National Microfinance Bank
PLWAs	People living with HIV/AIDs
PNA	Participatory Need Assessment
PRA	Participatory Rural Appraisal
SACCOS	Saving and Credit cooperative Society
SPSS	Statistical Package for Social Science
TCDO	Tongora Community Development Organization
TYLCTZV	Tanzania Yellow Leaf Curl Tanzania Virus

URT	United Republic of Tanzania
USAID	United States of Agency
WEO	Ward Executive Officer
WMAs	Wildlife Management Areas

CHAPTER ONE

1.0 PARTICIPATORY NEEDS ASSESSMENT

1.1 Introduction

This chapter explains Participatory Needs Assessment which is an approach that involves community to identify and assess their needs. It also involves community in identifying their opportunities that can be used as an alternative in meeting the community needs. PNA employs various approaches such as PRA in identifying problems and resources and finally prioritizing those problems and employing their existing resources to solve the prioritized problems. It takes into consideration the community's indigenous knowledge.

PNA provides legitimacy to the project or activities, promote commitment on the part of the people in its sustainability there is significance correlation between the level and intensive of people's participation and the increase in the success of the project. (Kasaija and Nsabagasani, 2008). This chapter also provides the profile of Musoma Municipality as a larger community and Bukanga community as a focus community for CED project.

1.2 Musoma Municipality Council Profile

1.2.1 Location

Musoma Municipality covers an area of 6,300 ha and is composed of plains with small - scattered hills. It lies between latitude 1 30' south of equator and 28 48' East of Green Witch. Moreover, the area of Musoma municipality is a slope, which

slowly falls down towards Lake Victoria. It lies at altitudes 1,140 and 1,320 meters above the sea level. The highest peak is 1,320 meters. The whole area is a peninsula East of Lake Victoria. Administratively Musoma district is in Mara Region, which comprises 8 councils namely Musoma municipality Musoma Rural, Butiama, Bunda District, Serengeti District, Tarime District, Tarime Town, and Roria district councils.

The town's influence extends beyond the regional boundaries of rest of East Africa. This is due to Musoma proximity and well connected by road and water transport network to Kenya and Uganda. The Town is well linked to other centers by both surface and air transport service. (RAS report, 2013).

1.2.2 Climate

Musoma Municipality an average temperature is 31⁰c. The highest temperature is 31.5⁰c. The temperature rises between September and November; the lowest temperature is 14.49⁰c which occurs between May and August. The daily mean temperature range is 15.3⁰c. (Musoma Meteorological Station Report, 2013).

1.2.3 Demography

Musoma Municipality population growth rate is 3.2% (natural growth), whereas 6.4% is net migration according to the national census of 2012. Musoma Municipal council has a total population of 134,327 people (2012 census report). Administratively the municipal consists of 1 constituency, 1 division, 13 wards and 57 hamlets.

Table 1: Musoma Municipality Population Distribution

Serial No.	Ward	Population (Number)			Average Household Size	Sex Ratio
		Total	Male	Female		
1.	Mukendo	2,426	1,360	1,066	5.8	128
2.	Mwigobero	2,179	974	1,205	4.3	81
3.	Iringo	5,321	2,448	2,873	4.6	85
4.	Kitaji	5,464	2,560	2,904	4.3	88
5.	Nyasho	6,344	2,856	3,488	4.5	82
6.	Bweri	25,943	12,247	13,696	5.2	89
7.	Nyakato	20,419	9,637	10,782	4.8	89
8.	Kigera	21,080	9,750	11,330	5.2	86
9.	Kamunyonge	5,004	2,303	2,701	4.2	85
10.	Nyamatare	6,527	3,011	3,516	4.8	86
11.	Mwisenge	13,603	6,243	7,360	4.9	85
12.	Buhare	10,129	4,684	5,445	5.3	86
13.	Makoko	9,888	4,621	5,267	5.2	88
	Total	134,327	62,694	71,633	4.9	88

Source: Musoma Municipal Council (2013)

1.2.4 Growth Trends

Land survey conducted in 2012 by the urban Development revealed that Musoma Town covered an area of 1,075 Ha. Half of this area was under residential use (580 Ha), public use (200 Ha), open spaces (120 Ha), Industry (50 Ha) Transportation (85 Ha) Commercial (15 Ha) and Cultural/cemetery (15 Ha). Musoma Municipality covers Total area of 6,300 Ha. The growth rate is characterized by the following,

Annual growth rate is 3.2% (natural growth), whereas net migration is 6.4%, Child age dependence ratio is 71%, General fertility ratio is 3.8, Sex ratio is 92 Males for every 100 females, slight above 1% 0-17 years population of Musoma Municipal are orphan, where female is 1.69% and male 1.5%, Literacy among population for age 5 years and above 81% whereas in male is 89% and female is 78% and in age 5 years and above never attended school is 19% in Female and 12% in Males.

1.2.5 Major Livelihood Mechanism

According to mini household budget survey conducted in Musoma in 2009, 36.4% of labour force was engaged in non-agriculture, 35.2% as employees, 25.8% in agriculture, 1.2% as apprentices, 1.2% as contributing family workers and 0.2% in the rest of the categories. In 2013 the Municipality Per Capita income is per year costs. 741,357.00 per year compared to the National Per Capita Income of TShs. 869,436.30 per year some people are engaged in petty trade as their means of livelihood.

1.2.5.1 Employment Status

Employment status provides an explanation with regard to how the labor force of a given locality is engaged in the production of goods and services. Labor force may be engaged as an employer, employee, agriculture worker, non-agriculture worker, contributing family worker etc.

According to mini household budget survey conducted in Musoma in 2013, 36.4% of labor force was engaged in non-agriculture, 35.2% as employees, 25.8% in agriculture, 1.2% as apprentices, 1.2% as contributing family workers and 0.2% in the rest of the categories. Main industry provides an explanation with regard to the

main economic activities in which the labor force of a given locality is engaged. Main activities include agriculture, forestry, fishing and other; mining and quarrying, trade and commerce, public administration and education; etc.

Out of the total labor force for the population aged 5 years and above, 24.5% were in trade and commerce, 24.2% in agriculture, 17.5% in public administration and education sectors, 8.3% in forestry, fishing and related industries, 7.8% in manufacturing, 4.3% in raw food sales (un-cooked), 3.2% in construction and 10% in the remaining categories.

1.2.5.2 Agriculture and Livestock

Agricultural and livestock activities are practiced in Musoma per-urban including Bukanga hamlet where provision of extension services to farmers is 74% milk production per milking indigenous cow is 1.5 liters per day, for dairy cow is 4.5 liters per day and eggs production is 60 for indigenous and 320 exotic per laying chicken per year.

1.2.6 Housing Condition

Building materials for Roofing: Iron sheets is the most dominant roofing material in Musoma municipality that accounts 94% of the built houses, whereas 5.9% is grass roofing and 0.1% include tiles asbestos or concrete.

1.2.7 Source of Energy

1.2.7.1 Source of Energy for Lighting

The main source of energy for lighting in Musoma municipality is hurricane lamp which accounts about 36% followed by electricity 39%, wick lamp 24% and 1% is candles, torches etc.

1.2.8 Source of Energy for Cooking

The main source of energy for cooking is charcoal for most of households (58%) followed by firewood 29%, kerosene/paraffin 9% and 4% include electricity and gas.

1.2.9 Source of Drinking Water

Piped water is the main source of drinking water in Musoma municipality that accounts 95% of the households, followed by unprotected well is 3% water vendors from rainfall and direct fetch from the lake is 2%.

1.2.10 Toilet Facility

The most common toilet facility used is pit latrine (72.22%), while 3.65% of the households have no toilet facility.

Table 2: Status of Toilet Facility in Percentage Measure

Flush Toilet	Traditional Pit Latrine	Ventilated Pit Latrine	Other	No Facility	Total
11.50	72.22	12.56	0.07	3.65	100

Source: DMO report (2012)

1.2.11 Education Overview

Musoma municipal council has a major role of providing education including Preprimary, primary, post primary and secondary education. The average enrolment for public schools is 31,452(15,357 boys and 16,095 girls). The teachers deficit is 14% and this is obtained standard pupil teacher ratio 1:40. Classroom pupils ratio is 1:82, Teacher pupil ratio is 1:51, Latrine pupils ratio 1:71 for girls and 1:66 boys, Text and supplementary pupils book ration 1:4, Teachers housing ratio 1:13(MMC, 2013).

Table 3: Description of the Number of the School in Musoma Municipal Council

Description	Government	Private	Total
Pre Primary Schools	38	7	45
Primary School	38	7	45
Secondary School	18	7	25
T.T.Cs	-	1	1
Folk Development College	1	-	1
VETA	1	1	2
University	1	1	2

Source: Musoma Municipal Council PEDP performance report 2012)

1.2.12 Health Service

The following tables show the number of government, religious and private health facilities in Musoma municipal council which include dispensaries, health centre's and hospital.

Table 4: Musoma Municipality Council Dispensaries

Government	Religious	Private	Total
11	4	8	23

Source: DMO report (2013)

Table 5: Musoma Municipality Council Health Centers

Government	Religious	Private	Total
2	1	1	4

Source: DMO report (2013)

Table 6: Musoma Municipality Council Hospital

Government	Religious	Private	Total
1	0	0	1

Source: DMO report (2013)

1.2.13 Gender

The gender issue is also a major challenge to the Musoma Municipality Council especially when it comes to domestic violence to women in the Municipality. The trend shows that although there is still domestic violence, there is a declining of a number of women subjected to domestic violence when it comes to issues of men beating women. There is a need of strengthening all measures aiming at eradicating that behavior in the Municipality.

1.3 Community Assessment Objective

1.3.1 General Objective

The general objective of conducting participatory need assessment is to assess, problems, identify opportunities, asset and challenge facing Bukanga hamlet community.

1.3.1.1 Specific Objective

- (i) To identify economic challenge facing Bukanga hamlet
- (ii) To identify economic opportunities in Bukanga hamlet
- (iii) To determine the feasible strategy required in order to improve the livelihoods of Bukanga hamlet

1.3.2 Research Question

This study had a total number of three Research questions

- (i) What are the economic challenges facing Bukanga hamlet?
- (ii) What are available economic opportunities in Bukanga hamlet?
- (iii) What should be done to solve the problems /challenge facing Bukanga hamlet community?

1.4 Research Methodology

1.4.1 Research Design

The researcher used a research design that specifies procedures used for collecting and analyzing the data required to identify, deal with and/or react to an issue/problem or opportunity that were identified in the hamlet community. Both quantitative and qualitative data were collected so that to get the real snapshot of the community needs. The selected sample reflected the actual population hence the findings reflected the need of the entire population. Participatory methods including face-to-face interview, group discussions, and questionnaires were among the design of the research task. Statistical computer package (SPSS) was applied as analytical tool in this research design hence data collected were presented well.

1.4.2 Sampling Techniques

Simple random sampling was used to identify the sample size instead of other methods due to a number of reasons; firstly, every household or individual in the population has an equal chance to be selected in order to avoid prejudice (Donald & Delno, 2006). Secondly, it allows random picking of representatives and therefore possible in making conclusion (Inferential Statistics) to a large population (ibid).

It is estimated that Bukanga has total of 383 households with the total population of 1915 people (2012 census). Since it was not possible to cover all population in hamlet, sampling was inevitable. In this study randomly probability sampling was used where every individual had an equal chance of being included in the sample, moreover purposive sample was used in selecting key informants. Simple random sampling was used in selecting targeted respondents as shown in Table 7.

Table 7: Distribution of Respondents in the Study of Sample

Number of respondents	Sample Size	Percent
TCDO Farmers	30	30
Stree Mtaa Official	4	4
Hamlet Chairperson	1	1
Youths	20	20
Women	15	15
Most Vulnerable Group	5	5
Total	100	100

Source Field Survey Finding (2013)

1.4.3 Data Collection Methods and Instrument

This part details different methods and tools that were used in data collection. A combination of four methods were used; Household questionnaire survey, Focus Group Discussion (FGD), Interviews and Researcher`s Observation. Descriptions are as follows.

1.4.3.1 Semi-structured Interviews

Data for this study were also collected by using semi-structured one-to-one interview. The type of interview involves interviewer and one respondent. These interviews were preferred because the approach allows greater standardization and control while enabling easy comparison of responses to a question (Finn *et al.*, 2000). In addition, despite having specific questions, semi-structured interviews allow more probing to seek clarification and elaboration of the participants own ideas, aspirations, and feelings while generating detailed, “rich” context, qualitative data (Long, 2007). This flexibility allowed an extension of the interviews into other issues that were not originally included in the interview checklists, but nonetheless helped towards addressing the study research questions. Various stakeholders

available in the study area were included. These involved: key informants such as hamlet Chairpersons and Mtaa Executive Officers (MEO); MALDO and officials who work with Musoma municipality.

1.4.3.2 Focus Group Discussion

Discussions (FGD) were used in data collection for a number of reasons; firstly, it provides access to a larger body of knowledge of general community information (Mikkelsen, 1995; Borrini-Feyerabend, 1997). Secondly, Group discussions are cheaper and quicker to conduct than individual interviews with the same number of respondents (Donald & Delno, 2006). Groups of 6 to 10 people were invited for discussion, this number of people was appropriate for easy management (ibid). Checklist was used to highlight key topics for discussion (Appendix, 2).

1.4.3.3 Questionnaires

Questionnaire is the method which consists of a number of questions printed or not in definite order on a form or set of forms, (Kothari, 2007). The researcher was administered questionnaires by distributing them to respondents who expressed themselves freely by giving thoroughly answers. The instrument was selected simply because; it enables to collect a lot of information over a short period of time.

Also it is suitable for large population and information collected are easily described in writing, (ibid). The questionnaires consist of both open ended and closed-ended questions (Appendix 1). The interview record the answer for proper recording. In general the instrument was very useful in the process of data collection due to the fact that it enabled researcher to collect some very important data from respondents

simply because they felt free and had adequate time to provide appropriate answer. On the other hand the method was faced with some problems like slowness (delaying of answering) negative response from respondents and unfilled questions, even though the research worked hard to avoid ambiguous questions.

1.4.3.4 Observation

Observation was done during the transect walk in the hamlet. The observation team from the host organization observed all opportunities and resources that were available in the hamlet. The team observed all issues concerned, fishing activity, fish processing factory and cassava farming (appendix No 3). The purpose was to get a clear picture of social and economical life, cultural life style and mind set of community members towards struggling for their own development and assess what were the pressing problems and needs facing the community.

1.4.3.5 Documentary Review

Documentary review was used in order to get what officials and the community knew about, what is the real need of community. Minutes of WDC meetings and other reports which prepared by MC Officers, local government such as WEO and MEOs. Information which collected through this instrument was Secondary data. Farther literature was obtained from website and libraries especially at open university (CED Program). Data collected from selected indicators were related to economic activities, education, poverty, income tomato farming.

1.4.3.6 Household Questionnaire Survey

Questionnaires were used in data collection from the households. This allowed respondents to provide required information. The questionnaires consisted open and

closed-ended questions. According to Newell (1993) open questions gives freedom the individuals to express their ideas and therefore, this was very helpful in gathering wide and in depth knowledge about the study. On the other hand closed questions make coding easier and save time for both the interviewer and respondents. The aspects covered in the questionnaires include personal information, social-economic information, benefit flow and their barriers, and opportunities.

1.4.3.7 Sample Size

Since sample elements were the households, therefore households were defined as a group of people living together and identifying the authority of one person the household head, who is the decision maker for the household (Katani, 1999). Then a sample was derived by random selecting representatives from the updated village roster book in which household heads were picked randomly. The sample sizes for the households were 100 people from Bukanga hamlet.

1.4.3.8 Questionnaire Pre-testing

Before administering the questionnaires, a pilot survey was conducted with up to five randomly selected households all from within the study area. The aim was to test the user friendliness on the posed questions. According to Finn *et al* (2000) pretesting also enable the researcher to check whether administration of the survey procedure as a whole will run effectively.

Experience from the survey procedure and comment from respondent vis-à-vis the questionnaire did not have any major concerns (i.e. minor changes to some Swahili words). Accordingly the questions that proved unclear or difficult for respondents

were modified. After pretesting the final revised questionnaire was then prepared in multiple copies ready for use as a study instrument to elicit the required information from respondents.

1.5 Data Analysis Methods and Discussion

The data gathered from the focus group discussion, interview and observation were transcribed and coded into variables for interpretation. Data analysis was done through the use of Statistical Package for Social Sciences (SPSS) to provide charts and describe statistics. Microsoft Excel software was used to get graphs. Similarly, results for PRA were presented in Table.

1.5.1 Finding from Structure Question

Figure 1 shows that there is male dominance in decision making, especially for income collected. Men are the ones who in most cases decide what should be done for the income earned. This negative attitude hinders community development. Women have not got the right to decide for income earned together.

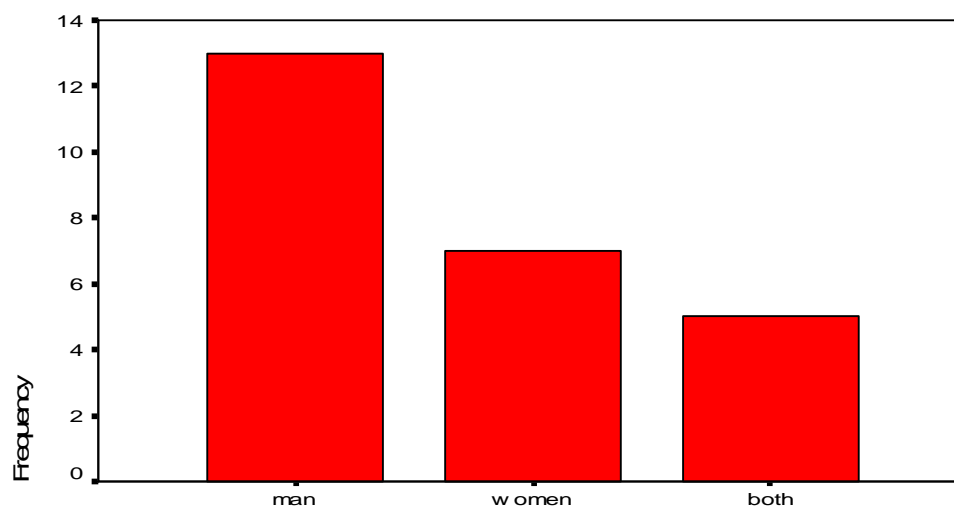


Figure 1: Figure Decision Making in the Family

Source: Field Survey Finding (2013)

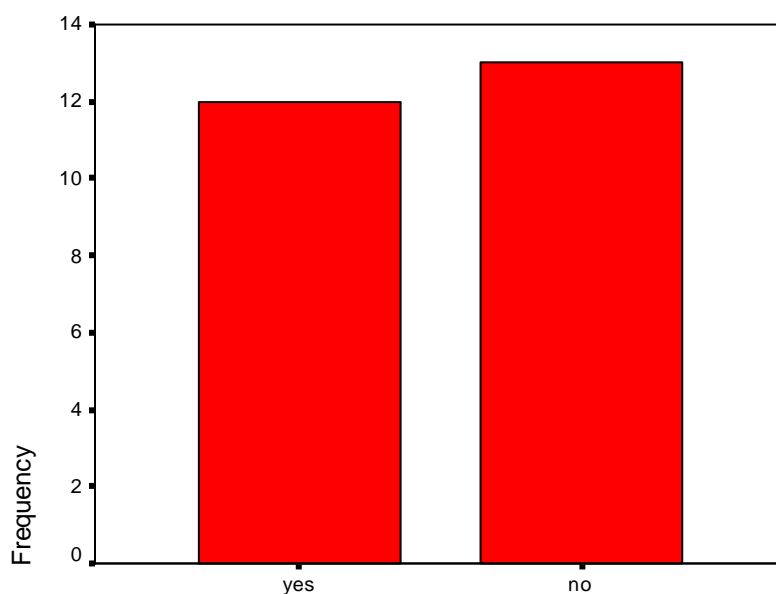


Figure 2: Leadership Participation

Source: Field Survey Finding (2013)

The Figure 2 reveals that, there is slightly more number of respondents who said the participation of the community in leadership is not good.

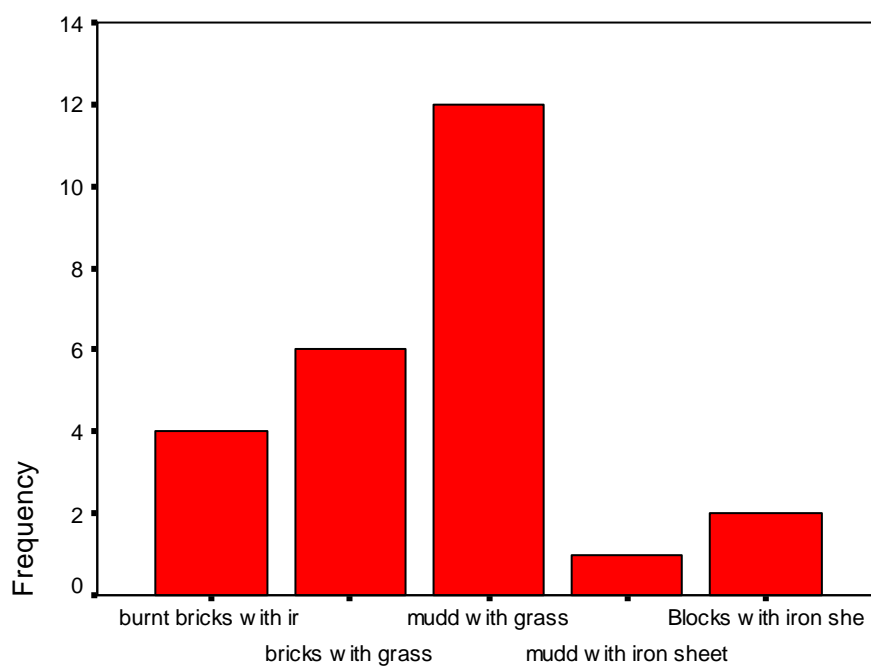


Figure 3: Type of House of Respondents Own

Source Field Survey Finding 2013

The research shows that rate of different types of house muddy with grass dominated the Bukanga community that reveals that they are importance for improving the social-economic of the community.

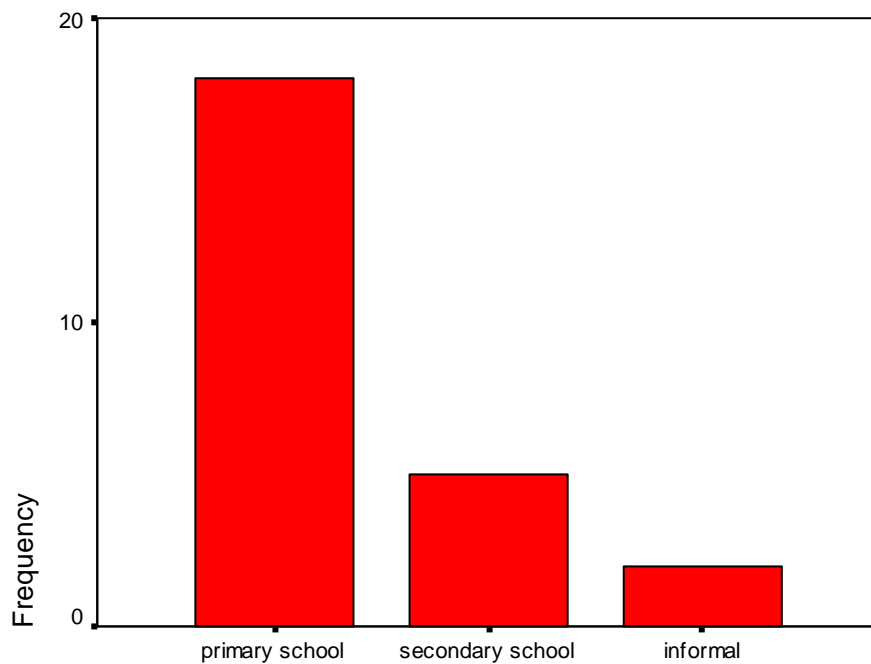


Figure 4: Education Level of the Respondents

Source Field Survey Finding (2013)

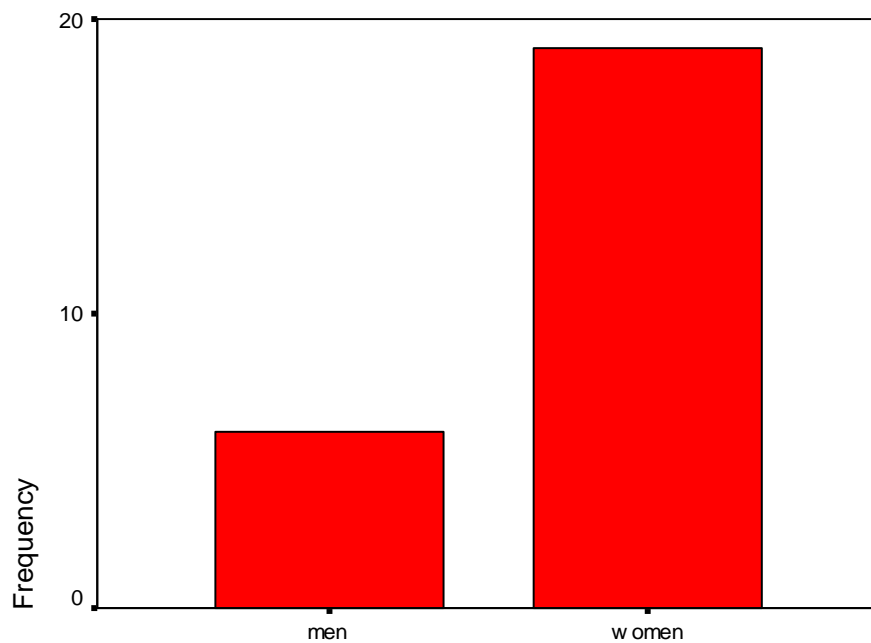


Figure 5: Workload in the Family

Source Field Survey Finding 2013

The Figure 4 shows that the majority of respondents attend primary school education while some few respondents attend informal education. Inappropriate and inadequate knowledge of people at Bukanga made them assume that the government is responsible for low income of the community had they got at least advanced level knowledge they would have settled the problems for themselves.

The result in Figure 5 shows that in the Bukanga community there is workload for family keeping is carried by women more than men. This reveal that women are responsible for retain the family in term of basic need such as food, clothing, shelter that called for education for the community on the role of man and women in the family in order to improve their livehood.

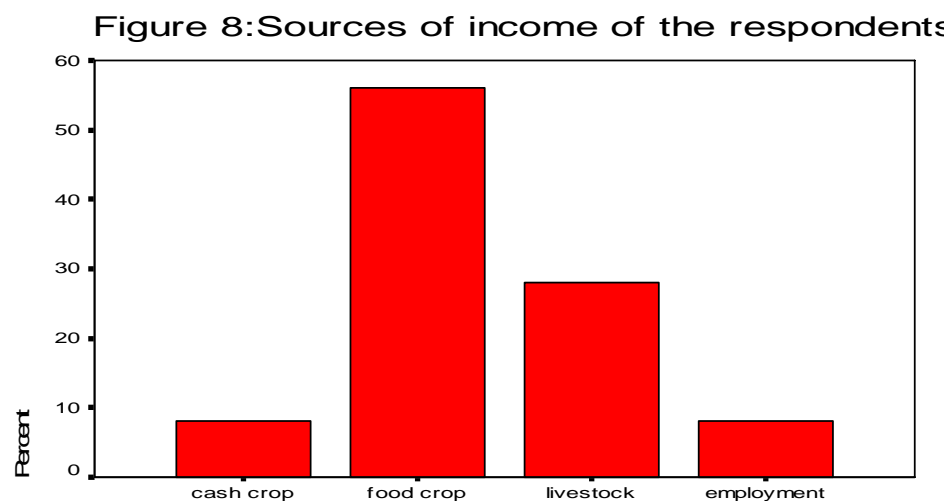


Figure 6: Source of Income of the Respondent

Source Field Survey Finding (2013)

Figure 6 revealed that the community was involved in different farming system to improve the income, however it was noted that food crops are used as cash crops and formed a large component for income generation, such crops included cassava, maize, fruit and vegetable.

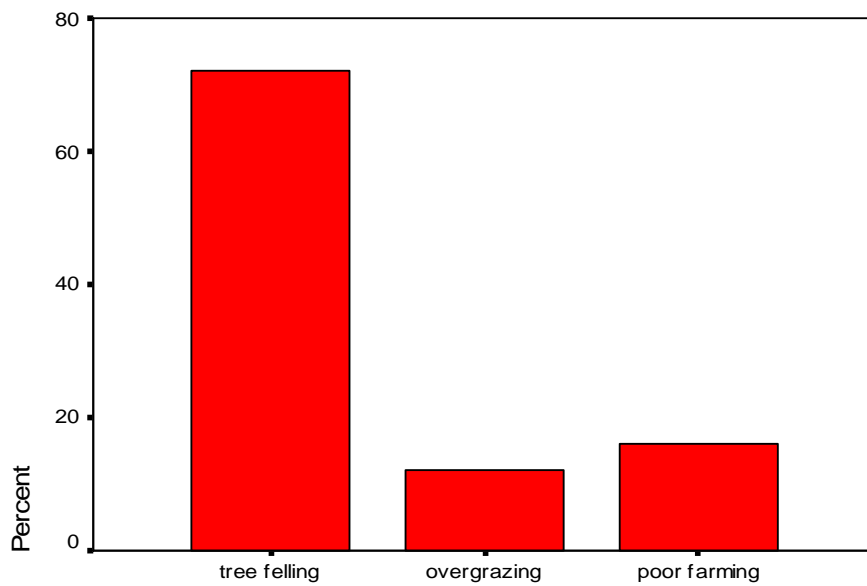


Figure 7: Causes of Land Degradation

Source: Field Survey Finding (2013)

Figure 7 reveals that the majority of community said that the main cause of land degradation is tree felling. Others include overgrazing, poor farming and tree felling that evident that extension service of educating community on the problems rise due to environmental degradation since without that in near future the Bukanga will remain like desert and failed into consequences.

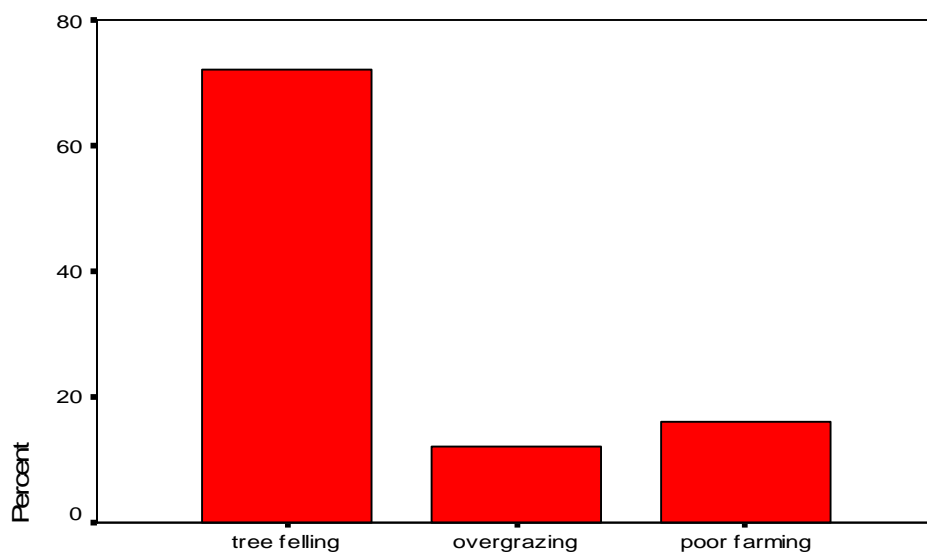


Figure 8: Causes of Land Degradation

Source: Field Survey Finding (2013)

Figure 8 reveals that the majority of community said that the main cause of land degradation is tree felling. Others include overgrazing poor farming and tree falling that evident that extension service of educating community on the problems rise due to environmental degradation since without that in near future the Bukanga will remain like desert and failed into consequences.

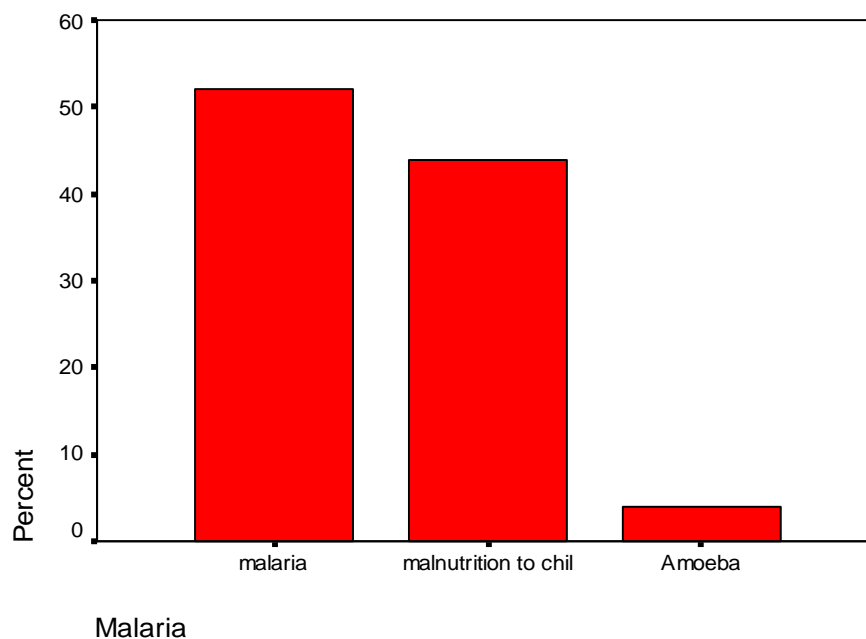


Figure 9: Main Disease in the Village

Source: Field Survey Finding (2013)

Figure 11 show that the respondents interviewed reveal that malaria is leading disease in Bukanga community followed by malnutrition and amoeba. That finding that can cause the community to lose the study called for community to find the way of identify viable solution which will ensure community getting health service on preventive and curative.

1.5.2 Finding from Semi Structure Interview

Researcher used date collection methods of semi structure. Interview responded directly to the question the stakeholders and farmers mentioned that problem facing

community are low income, food insecurity, inadequate clean water supply, poor health services. Marketing and marketing problems and land degradation however low income was major problems of Bukanga after decline of fishing activities and community opted for tomato farming as an alternative source of income.

1.5.3 Finding from Observation

Researcher also conducted a direct observation by field visit. Observation what is going in the place; it has been done informally without much thought to the quality of data collection. Direct observation allowed researcher being more systematic, structure processing well as designed record form.

The researcher used a checklist observe nature of the house, farming activities, stone breaking, source of water for domestic use, types of vegetation, shops, types of industries, was in position to see activities going in the place like poor tomato farming, stone bricking, houses.

1.5.4 Finding from Group Discussion

Focus group discussion was also one of the methods used in data collection to reveal community stress, sources available to overcome stated stress planned discussion was used to determine a community's preference and opinion on how the available resource can be tapped for benefit off all member of community. The groups discussion involve hamlet leaders, groups of farmers the focus group discussion was concern,/opportunities challenges in term of economic, social, environmental, health. From focus group discussion several issues were discussed from finding it shows that Bukanga hamlet has a lot of opportunities with which if utilized well the hamlet

would have developed faster They mentioned few opportunities are available as the nearby lake Victoria, electricity, land nearby the lake which could be used for tomato cultivation.

During focus discussion respondents argued that despite of all the available resource in the community still there are major challenges that faced that community including low income and poor leaderships, Unemployment and lack of education. In summary during focus group discussion a lot of challenges were discussed but they all revolved around low income of the community and unemployment.

1.6 Community Need Prioritization

The last steps in the need assessment process was prioritization of the identified the issues. These results were presented before the community with in order to allow them prioritizes and select the most pressing need. Pair wise ranking was used to allow prioritization process this process is a crucial in order to determine needs and concern of the particular community involved. Identified needs were mentioned and prioritized in order to come up with one most pressing need which required to be addressed through a project which had to be designed by community of Bukanga and stakeholders.

1.6.1 Pair - Wise Ranking

Pair wise ranking is significance aspect of participatory bottom-up planning in ascertaining of the priorities of the community concerned pair wise ranking most opportunities (or problems) on this course of action in interaction PRA may reveal a wide range of the problems and express several need. Pair wise ranking, comprise

pair of the element, such as preference for need problems food items, tree, and credit source and recreation activities (Naraganasamy, 2012).

Table 8: Pair Wise Ranking Table at Study Area

	Low income	Food insecurity	Inadequate clean water supply	Poor health services	Market and marketing problem	Score	Rank
Low income		Low income	Inadequate clean water supply	Low income	Low income	7	1
Food insecurity	Low income		Food insecurity	Food insecurity	Food insecurity	4	2
Inadequate clean water supply	Inadequate water supply	Low income		Poor health services	Market and marketing problem	3	3
Poor health services	Low income	Food insecurity	Poor health services		Poor health	2	4
Market and marketing problem	Low income	Food insecurity	Inadequate clean water supply	Poor health		1	5

Source Field Survey Finding 2013

1.6.2 Crop for Income Generation Priority

After identifying a main problem which was low income and their main source of income was from crop production. The community was asked to vote for the crops which could be their alternative source of income if improvement intervention was done.

Table 9: Community Crops of Priority by Voting

Problem	Score	Rank
Tomato	15	1
Cassava	10	2
Maize	7	3
Onion	5	4
Water melon	4	5
Cabbages	3	6

Source Field Survey Finding 2013

1.7 Conclusion

In the community need assessment conducted at Bukanga hamlet, problem of priority was related to economic issue and low income was a big problem of the community in the area and was mainly due to low crop production, marketing problems and unemployment. The possible crop for intervention was to improve tomato farming methods by training farmers on appropriate farming techniques, business plan skills and acquiring good seeds from research institutes.

However financial capital problem could be solved by mobilizing tomato farmers into associations, training them on appropriate farming technology, entrepreneurship and lastly assist them to establish Saving and Credit Cooperative Society (SACCOS). From the economic assessment, the area has potential resources to improve the income of the individual through improving tomato farming. This includes enough labor, land, water and market potential of tomato.

Other findings included were weak hamlet leadership which caused poor community response to development activities. These leaders make critical decision for communities without involving them. This is because the system which put leaders in position is not good. For example, education level is not a criterion for selection hamlet chairperson. As the result, the leaders in position are weak and cannot plan with people for action. Training on leadership to newly elected people is very important. This can be done by the government or other development actors.

Land degradation was mainly due to charcoal making for energy and as income generating activity. Possible interventions proposed by the community included;

educating communities on reforestation, strengthening environmental bylaw and helping youths involved in charcoal burning start alternative income generating activities like improved tomato growing. Main health problem was inaccessibility of the community to health services and inadequate health facilities. Malaria, HIV/AIDS and unsafe water were main stresses. The proposed intervention was awareness creation to the community on primary health care.

CHAPTER TWO

2.0 PROBLEM IDENTIFICATION

2.1 Introduction

This chapter explains the major problems in the area identified through participatory assessment. It also provides the general background on poverty in area, magnitude of the problem and the impact to the society. It also shows rationale for choice of the host organization, objective, mission and activities of the host organization.

2.2 Background to the Research Problem

Following the participatory need assessment conducted at Bukanga community, Participatory rural appraisal was used to make sure that community and other stakeholder participate in identifying resource and need of the community. The assessment was conducted by using participatory methods such as focus group discussion, interview, Questions, discussion guide, interview, guide and pair wise used as research tools.

Research tools were aiming at answering research findings and pairs wise ranking show that low income was ranked number one followed by food insecurity, inadequate clean water, and market and marketing problems.

2.3 Problems of the Statement

The low income at house hold level and individual level in Bukanga hamlet is major community concern. The economic –social condition in Bukanga hamlet is not good thus the economic activities (fishing, cassava cultivation, and small business) are so

small and wages employment is very limited. The low income is a result of improper resource management limited investments. Substantial research work on the problems of low income has been worldwide by (Semboje, 1994; world bank, 2000 URT 2002) these research identified income as a very crucial physiological and psychological need which need to be met in a sustainable manner for any development.

The extent of low income level in hamlet measured by criterion of estimated income of person for a given period which according to the Musoma municipality department of Economic and Statistic official report (2013). The income of the Bukanga hamlet ranged from 93,000/= to 170,000/= per monthly. This actually indicated poor earning when we compared to an average of 387,319/=Tshs which is earned by 35% of the people of Dar –es salaam city population.

This figure is far below the lower poverty line of US\$ 1 per head per day. There need to intervene in the community by introducing the project which will uplift the income of the Bukanga community. Which tomato farming was the prioritized by the community as the solution of the stressed of income of the community.

2.4 Project Description

2.4.1 Target Community

The target community of this project at hand is Bukanga hamlet Community where tomato growing will be taken place, and they are the primary beneficiaries/target. The project is expected to benefit 1915 people of Bukanga Community.

Additionally, other stakeholders within the community will be benefited as described under Table 10.

Stakeholders are individuals, group of individuals or institutions that are the major players, important audience, clients, beneficiaries, supporters or investors of the project. These can be direct or indirect stakeholders. In this case, stakeholders' analysis was conducted with the aim of a better use and involvement. Through stakeholders analysis conducted the following were identified.

Table 10: Stakeholders Analysis

Name of Stakeholders	Role on the project	Expectations	Priority
Role of TCDO	(i) Making sure that all materials such as credit kit, log books, pass books are in place at a time. They are needed. (ii) Making sure that transport is available whenever needed. (iii) Advise CED student on project progress. (iv) Participating in stakeholder meeting.	<ul style="list-style-type: none"> Improved tomato production Farmers have skills in tomato production CED students to give cooperation 	1 1 3
Musoma Municipality	The duty of the host organization was:- (i) To coordinate implementation of all project activities. (ii) Responsible and accountable financially to donors, local government leaders and the direct beneficiaries. (iii) To disseminate reports to all stakeholders and community.	<ul style="list-style-type: none"> Farmers are working in groups Registered groups Farmers get micro financial access 	2 3 1 1
Community	(i) To Give Cooperation to Project Team (ii) Assist In Identification of Beneficiaries (iii) To Contribute In Kind	<ul style="list-style-type: none"> They Are Trained Their Lives Are Improved 	2 1

Source Field Survey Finding (2013)

2.4.2 Project Goal in CED Term

To contribute to improvement of the standard of living of Bukanga Community by improving tomato farming. Improved tomato farming will have high yield and better price of tomato will improve the income of the beneficiaries and contribute to

improvement of their lives. This will be achieved if they community get better skills and knowledge on tomato farming and linking them to reliable market. Beneficiaries will be trained on tomato processing for value addition currently there is a big gap in production, processing and tomato marketing.

The project purpose is to improve tomato farming in order to improve the community income by creating and supporting opportunities for community learning through education and skill development, sharing local knowledge on opportunities to learn through practice so as to reach the goal of the project improving of the standard of living of Bukanga community.

2.4.3 Project Goal

Is to have relatively efficiently and strong local economy that enables community to have the sources of economic income.

2.4.4 Project Objectives

- (i) Facilitate the formation and registration of local association for social and economic purpose among three groups in Bukanga hamlet by 2014
- (ii) To ensure that 80% of groups member have business skills training and able to keep their business record, by 2014
- (iii) To increase income of tomato farmers from 20% to 70% by 2014

2.5 Host Organization

The host organization Tongora community development organization is a voluntary non-government as well as a nonprofit making organization. It is formally registered

in 15th of July 2011 with registration number Ingo845226. The head office of near Mugobero Street in Musoma municipality. TCDO aiming to establish and develop groups of the farmers, cattle keepers and peasants for the aim of boosting their economy status of the people. TCDO has been supporting farmer regarding to their needs.

2.5.1 Vision of the Organization

Aspires to serve community which is economically and socially sound.'

2.5.2 Mission Statement

TCDO ensures that communities in Mara region empowered to achieve sustainable social economic development by their own initiative from locally available resources.

2.5.3 Organization Main Activities

- (i) Promote sustainable agriculture to small holders' farmers groups in four districts of Mara region
- (ii) Promote environmental protection and conservation in 8 wards of four districts of Mara region
- (iii) Facilitate groups' small holder farmers to access reliable markets
- (iv) To promote gender equity and empower marginalized groups in four districts of Mara region
- (v) Enable smaller holders to access micro credit schemes
- (vi) Facilitate research documentation and dissemination to stakeholders

2.5.4 Organization Structure

Tomato farmer groups are 4 groups formed by the farmers of Bukanga this groups governed by member general meeting (where decision are made) this is followed by Executive committee which is over all charge of the organization activities Structure is simply illustrated under the diagram as proved Appendix 4.

Table 11: SWOT Analysis

STRENGTHS	OPPORTUNITIES
(i) Arable land for agriculture (ii) Availability of water for irrigation (iii) Readiness of community members to involve in tomato production	(i) Technical support from other stakeholders such as TCDO (ii) Support and encouragement from political figures. (iii) Easy accessibility of project area from and to Musoma Municipality. (iv) Support from municipality.
WEAKNESSES	THREATS
(i) Income generated from existing income generating activities is very low. (ii) Wakwaya tribe who are many in the Areas seen to like fishing more than other activities such as fishing.	(i) Government policies are not well specified in specific. (ii) Farmers faced challenges of competition from other farmers in municipality and outside.

Source Field Survey Finding (2013)

2.5.5 Role of CED Student in the Project

- (i) To provide technical assistance in proposal writing to various donors both local and international ones.

- (ii) During the project implementation, the researcher assisting the host organization to build capacity of the communities in areas of market management within the protected area, Project cycle management, participatory methodologies and writing project proposals.
- (iii) Prepare publication material and share with colleagues (power point presentation)
- (iv) Collaborate with NGO leaders and other stakeholders to conduct monitoring and evaluation of the project
- (v) To prepare and write feedback reports to host organization

2.5 Summary

This chapter examined the problems of low income which lead to community intervention of improving tomato farming; the project intends to build capacity to leaders of Bukanga community, farming skills and techniques.

Stakeholder analysis was conducted to identify other players that have a stake in the project'. More over SWOT analysis was conducted to the determine its strengths and weakness together with opportunities and obstacle that promote and hinder implementation of its activities.

CHAPTER THREE

3.0 LITERATURE REVIEW

3.1 Introduction

This chapter presents a theoretical and empirical literature review. Under theoretical literature review, under a theoretical review, it explain the tomato history, tomato varieties, ecological requirement of tomato, preparation of tomato field and planting techniques, tomato management, tomato disease, disorder, pest, tomato harvesting ,tomato storage and tomato marketing. On other hand empirical literature review presents practical evidence from various studies on tomato.

3.2 Theoretical Literature Review

3.2.1 Tomato History

Tomato *salanum lycopersicum* is one of the most importance cultivated vegetable in most of the region in the world second only to potatoes, but ranked first in Tanzania with total annual production of 129,578 representing 515 of the total vegetable production (Mwasha *et al.*, 2009).

It is economically attractive and the area under cultivation is increasing daily. Tomato belongs to the Solanaceae family. This family also includes other well-known species, such as potato, tobacco, peppers and eggplant aubergine) brought to Europe by the Spanish conquistadors in the sixteenth century and later introduced from Europe to southern and eastern Asia, Africa and the Middle East. More recently, wild tomato has been distributed into other parts of South America and Mexico. Common names for the tomato are: tomatoes (Spain, France), tomato

(Indonesia), faan ke'e (China), tomato (West Africa), tomatl (Nahuatl), jitomate (Mexico), pomodoro (Italy), nyanya (Swahili).

Tomatoes contribute to a healthy, well-balanced diet. They are rich in minerals, vitamins, essential amino acids, sugars and dietary fibres. Tomato contains much vitamin B and C, iron and phosphorus. Tomato fruits are consumed fresh in salads or cooked in sauces, soup and meat or fish dishes. They can be processed into purées, juices and ketchup. Canned and dried tomatoes are economically important processed products. (Wageningen, 2005).

3.2.2 Tomato Varieties

The tomato There are around 7500 tomato varieties grown for various purposes. Tomato varieties are roughly divided into several categories, based mostly on shape and size (Smith, 1999). The main tomato varieties cultivated in Tanzania are man globe, moneymaker and Roma VF, all which are highly susceptible to several viral diseases (<http://www.aurdc.org>).

3.2.3 Ecological Requirement of Tomato

3.2.3.1 Soil

Tomato prefers light, well drained sandy –loam soil with clay sub –soil. The crop is sensitive to water logging optimum soil pH for tomato is 6.0-7.0 ; pH should never be below 5 disorders such as blossom end rot are common if soil pH is lower than 5.5.

3.2.3.2 Temperature

Tomato grows best under temperature of 15-29°C. Vegetative growth is checked at temperature above 32°C. fruit setting is poor when average temperature exceeds 30°C or

fall below 10c high temperature cause pollen sterility. At low temperature also pollination does not occur, tomato grow best when night temperatures are 15-20c and day temperatures 24-29 c. plant growth is better when daily maxima are 10c or more above the minima, so long as temperature do not exceed 30c .The crops simply prefer cool and dry conditions.

3.2.4 Preparations of Tomato Field and Planting Techniques

3.2.4.1 Preparation of Tomato Field

Two or three weeks before planting, dig the soil over and incorporate as much organic matter as possible. The aim is to make the soil able to retain the moisture needed so much by tomatoes. Incorporating organic matter into the soil has the added benefit that it will help it warm up much quicker compared to dense soils which do not drain well. Tomato can be planted on the beds, ridges,-or on flat land depending on system of irrigation. Sunken beds can be used if no threat of water logging and the crops is to be staked (<http://www.gardenaction.co.uk>).

3.2.4.2 Seedling Transplant Production

Seedling grown in about 1m² nurseries about (3-5g ½ of tea spoon) enough for field about 100m² about 300-500 seed is enough for 1hectar field. If production is desired throughout the season transplanting may alternate at 2-3 weeks intervals. Best transplanting time is after 16.00hrs evening transplanted seedling usually perform better than morning planted one.

3.2.4.3 Transplanting/Spacing

Tomato seedlings are usually ready for transplanting after 30-50 days (4-7 week) after sowing. Early transplanting is best. The seedling ready for transplanting are

usually at 4-5 leaf stage, seedling should be transplanted about 2-3 cm deeper than previous rooting zone to allow formation of new roots press the soil around the base of the base of the transplanted seedling to make the soil hold the roots films. The field is irrigated as soon as it is transplanting.

Transplant in the late afternoon or on a cloudy day to minimize transplant shock. Insert the seedling in a hole so the cotyledons appear above surface. Tomato spacing also is importance the spacing usually about 70-100 cm between plant within each raw. Stacking usually allow closer spacing because it enables spreading of growth (canopy) more vertically.

3.2.5 Tomato Management

3.2.5.1 Tomato Irrigation/Fertilization

Insufficient water at any growth stage reduces yield and fruit quality. Tomato is the most sensitive to water deficit during flowering, somewhat sensitive immediately after transplanting and during fruit development and least sensitive during vegetative growth. Fertilization of tomato should be with organic (animal manure and chemical fertilizers to produce highly yield, the combination of organic and in organic fertilizers is recommended.

Local conditions and cropping pattern when selecting fertilizers amounts. In the tropical, common fertilizers application rate are 60-120 kg N per hectare. It is important to obtain sufficient plant size prior flowering. However, excessive vegetative growth can reduce early and subsequent fruit set. Adequate phosphorus is important for early development and flowering. Achievement of fruit soluble

solids relies on adequate potassium, and calcium is importance for better cell wall development (Scott *et al.*, 1989).

3.1.5.2 Weeding/ Pruning /Desuckering/Staking

Weeds should be controlled because they compete with the tomato vines for light, water, and nutrients. Sometimes they host tomato diseases, such as tomato Yellow leaf curl virus (TYLCV) Mulches suppresses weed growth on the beds. Remove weeds from furrows by pulling or hoeing. Parasitic weeds such as Dodder (*Cuscuta* and broom rape *arobanche rumosa* should be avoided.

Pruning improves air circulation within the canopy, which reduces foliar Diseases and facilitates spraying and harvesting (prevents the plant becoming bushy). Involves removal of all secondary shoots which grow between the main stem and the leaf axils while they are still tender.

Desuckering involves removal of all suckers arising from the base of the plant. Staking tomato plants with bamboo poles, wood stakes, string support or any other sturdy material provides support and keeps the fruit and foliage off the ground; Staking can increase fruit yield and size, reduce fruit rot, and ease spaying and harvesting. Indeterminate varieties are necessarily staked to facilitate pruning, pinching, harvesting, and other cultural practices. Determinate varieties should be staked in the wet season to prevent fruit contact with the soil. Staking is necessary approximately 2-3 weeks after transplanting, can be as early as at transplanting. Should be best in V-shape between beds or ridges. Other Arrangements are also good.

3.2.5.3 Insect Pests/ Tomato Disease /Tomato Disorder

There are many insect pests that attack tomato. Most important include most diseases which include America bollworms (*Heliothis armigera*) they make hole on the fruits and feed from within the fruits. They make holes on the fruit. They extensive damage on the fruits same other pests are white flies (*Bemisia tobaci*) which sock fluid from lower sides of leaves causing stunting, red spider mites which suck sap from beneath leaves.

Tomato disease are late bright (*phytophthora infestans*), Early bright, bacterial spot, early bright (*alternaria saloni*) and Gray leaf spot, (*stemphylium solon*) bacteria sport (*xanathonomonas campestris* PV *vesicatoria*, creates lesions, on leaves and fruit, especially during the rainy season also there tomato disorders, non-parasitic diseases, physiological diseases, physiological disorder.

3.2.5.4 Tomato Disease Control

Development of the disease resistant tomato genotype is the most efficient and environmentally friendly way to control the two diseases when sufficient genetic variation for the resistance is available. (Herbert, *et al.*, 2001). Tomato –bacteria-speck pathosystem, the resistance (R) gene to the pathogen was originally discovered in wild- type species of tomato.

The incorporation of the gene into commercially acceptable tomato genotype is now a common practice (Scott *et al.*, 1989). The tomato variety Hawaii 7998 has been reported to be reliable source of resistance to race 1 strains of *vesicatoria* (Scott *et al.*, 1986).

3.2.5.5 Tomato Harvesting and Tomato Storage

Fresh market tomatoes are harvested at specific stage of maturity determined by the proximity to market. Those for local market are vine ripened to full red color before harvest. Those for distant market are picked at full size but green mature green commercially, most tomato are harvested at the breaker or mature green stage. The tomato should harvest as they reach the right size and the right color.

The tomato storage can be stored successfully for several weeks but the recommended temperature differ with the stage of the fruit mature, green tomato should be stored at the temperature of 13 centigrade to 18,centigrade and relative humidity the ripening mature green fruit is 18 to 21c below 13c fruit will not develop a dark red colour ([Http//www. Searching.com](http://www.Searching.com)).

3.2.5.6 Tomato Marketing

Variation in marketing vegetable include selling at the farm gates from grower or home, sometime directly to the consumers but most of often agents collectors, who sell to large buyer or wholesalers. Agent or whole sellers produce local, district, or regional market and selling them directly to consumers.

3.3 Empirical Literature Review

3.3.1 Tomato Project Implemented by ACT –MARA

Anglican church Mara implemented small scale horticulture farmers project at Nyatwale village in Bunda district in Mara region where farmers were mobilized into groups, received training on appropriate tomato farming. As a result of this intervention the tomato yield increased from 5 tons to 10 tons per acre. The farmers

also formed association and they were linked to different markets including Serengeti national Park lodges and hotels which were reliable markets. As a result of reliable market the income of farmers from sale of tomato increased from Tshs 50,000 to 300,000 per months (ACT Mara, 2013).

3.3.2 Techno Serve Implemented Tomato Project at Mbigili-Iringa

In early 2012 Techno serve implemented project at Mbigili village in Iringa a region in Tanzania highland where Mlamke producer Business Groups was formed. The group with 50 members reserve training on tomato production and basic business skills had a sette up market collection point where their brought tomato to be sold in bulk. The member revealed that received a price three times higher more than what they earned previously. With extra income they were able to send the children to school and feed them wholesome diet, also that money enabled them to upgrade their mud and grass thatch house to more secured brick houses.

Similar project called Sustainable horticulture for Income and food security in Tanzania funded by US Agency for International Development was implemented in which farmers were banded together in business groups to sell their product in bulk also connect to market. As a result of project implementation members of groups were better to access critical inputs and services such seeds, fertilizers, irrigation system and credit (Techno Serve, 2012).

3.3.3 Anglican Church of Tanzania

In 2012 ACT - implemented project in Northern Tanzania where hundreds of growers utilize small tracts of land to grow tomatoes as their primary source of

income. Close to 150 of those growers were members of the UWANO Ngarenanyuki Horticultural Cooperative. UWANO was one of 13 growers groups that supplied a rapidly expanding export company in the region, which provided a direct market for produce and an incentive to continually increase production. Since 2010, CNFA Farmer-to-Farmer worked closely with UWANO, to support the organization in capacity building of leadership skills, business and financial management, soil conservation and management, and tomato pest and disease control.

After implementing volunteer recommendations, growers increased tomato production, expanded their markets, kept proper financial records and developed a revolving credit program to assist growers to organize their farm businesses and produce high-quality tomato. Today, the farmers in Ngarenanyuki market their tomatoes in the distant markets of Mombasa, Dar es Salaam, Arusha and Moshi. UWANO members have been able to increase the standard of living for both themselves and their families by building modern houses, enrolling their children in schools, and investing in other economic activities such as livestock.

3.4 Policy Review

‘..... a policy is a statement of goal and purpose .A policy may also specify over all principles to be followed in order to reach at certain goals. Public policies are formulated by the government, while any organization may formulate its own polices (WHO, 1994). Polices can be explicit or implicit. Those which are explicit are clearly stated and adopted by legislative bodies. These polices can be found in the country’s constitution, national development plans, national budget document.

On other hand, implicit policies are those which are not clearly specified these policies may be deduced from current ministerial decrees, administrative rule and procedure, statement by political parties, influential groups or press just mention few. The mentioned below are the same of the policies are in place for improving the life of the Tanzania hence rise of their economical social welfare.

3.4.1 Agriculture and Livestock Policy 1997

The Agricultural Policy (1997) lists important horticultural crops that are commonly produced for the market and for which efforts to promote their production need to be increased in the next decade. The most important fruits mentioned are pineapples, passion fruits, citrus fruits, mangoes, peaches, pears and dessert bananas. Vegetables include tomatoes, spinach, cabbages and okra. Flowers include tropical varieties e.g. tuberous roses and some temperate types e.g. carnations, Lisianthus and Chrysanthemums.

Agriculture that by definition also includes horticulture continues to play a predominant role in Tanzanian economy. It contributes about 48% of the Gross Domestic Product (GDP), generates about 60% of the total export earnings and employs about 84% of the labour force (Planning Commission, 2000). It provides the bulk of the national food supply and contributes greatly to the livelihood of the populace. Horticulture (Latin *h ortus*, “garden”, culture, “cultivation”) is a science and art of growing fruits (pomology), vegetables (olericulture), flowers (floriculture), shrubs and trees (landscape gardening). Tanzania's climatic growing conditions can accommodate the production of a wide range of Fruits, vegetables and flowers.

Wholesome of them can be produced throughout the year; the majority of these products are highly seasonal. Most of them are consumed at farm level, leaving the domestic market with gluts and severe scarcity during on and off seasons respectively.

Although the number and nature of guidelines that constitute an agricultural policy is vast and Complex, the ultimate goal is the improvement of the well being of the people whose principal occupation and way of life is based on agriculture. Most of these people are smallholder and livestock keepers, who do not produce surplus. Therefore the focus of this policy is to commercialize agriculture so as to increase income levels.

3.4.2 Agriculture Sector Development Strategy 2011

According to national Agricultural sector Development Strategy 2011 (ASDS, 2011) it highlighted some of the agricultural sector challenges which include low productivity, poor coordination and limited capacity, underdevelopment supporting facilities, erosion of the natural resource base, inappropriate technology, dependency on rain fed agriculture and access to food. The strategy indicated the possibility of the country to increase agriculture products.

The strategy (ASDS) Document puts forward the need to increase private sector participation and agriculture development in general by creating the favorable climate for commercial activities. The government aims at devising appropriate investment incentives for agriculture sector, humanizes and publicizes the agricultural sector legislation and the collaborating sectors; provide legal empowerment for stakeholders to control commodity board; legalize and promote.

3.4.3 Sera ya Taifa ya Uwezeshaji wa Wananchi Kiuchumi 2004 (Community Development Policy)

According to sera ya Taifa ya Uwezeshaji wa Wananchi kiuchumi (URT, 2004) Community development policy the land was stated as effectively utilized to enable the citizen to full participate in economic development. For this reason the government will utilize the land by enabling her citizen to increase their income and access share through land in order to actively involved in economic development. The strategies to be used include developing infrastructure in arable land so that it will accommodate agriculture, livestock, business and other economic development activities. The government also aimed to enable the farmers and other land user to access the credit through land.

3.4.4 Community Development Policy 1996

Community development policy 1996 aim at enabling Tanzanian to bring about their own development by working to improve production so that they may have increased income which will enable communities to build a better life through self reliance and use of locally available resources. It acknowledges this approach as the major way to eradicate poverty. The policy focusing areas include eradicating of the poverty through involving those responsible for bringing about community development by advising training individual families and households encourage groups, or cooperative productive activities.

3.4.5 Tanzania Development Vision 2025

The vision came to being after the realization that, the country need to develop itself in areas in order to be active participant as the nation in global development world

development world characterized with advance technology, high productivity, modern and efficient transportation and communication infrastructure.

The development vision objective include achieving quality and good life for all good governance and the rule of the law, and building a strong and resilient economy that can effectively withstand global competition (URT, 1995) The national development vision deploy the intent of being people centred. It considers the national development as the fact in which wealth are created and distributed free from angularities and all forms.

The government continue to create the situation so as to faster economic transformation from low productivity agriculture economy to a semi –industrialized one and highly productive agricultural activities which are effectively integrated and buttressed by supportive industrial and services activities in the urban and rural areas.

CHAPTER FOUR

4.0 PROJECT IMPLEMENTATION

4.1 Introduction

This chapter will consist of the original project plan and actual implementation of the project. It will include the major task and activities which have been undertaken, resources needed and resources used as well as responsible personnel in each activity planned. It will also report what was accomplished and what was not and the reasons for not being done. So, the chapter provides a summary of what so far has been done in terms of the project objective.

4.2 Project Implementation Background

The implementation of the project was based on a community need assessment which was carried out during the participatory assessment process. This involved understanding of their income generation activities and targeted community members where the TCDOs tomato farmers groups.

The community analysis covers aspects of economic, health, environment, and leadership pattern, population characteristics in the community. Research also was conducted based on the result from Community Needs Assessment (CNA) to find out the causes of the community's low income. At the study of our studies, these groups of farmers were involved in the growing of tomatoes with low production, low skills of tomato production, absence of leaderships, limited capital to buy farming inputs and limited market linkage was identified. These in turn, affected participation of

the members in the groups therefore threaten the existence of the tomato groups in the Bukanga community.

Given on the above background, the implementation of the project involved developing and carrying out training program whose objective was to come up with solution of the same issues that research revealed. Therefore the groups needs to undertake the capacity buildings session to empower members on tomato farming skills, entrepreneurship skills, support them for registration of the groups, leadership skills that will ultimately reduce income poverty since they will improve production of tomatoes. For the fulfilling mentioned purpose the proposal objective of enable farmers groups have been achieved.

4.3 Project Product and Output

The indented project product and output was to improve the community of Bukanga income which will ultimately improve their economic statues and hence improving their living standard at Bukanga hamlet and Musoma Municipality in particularly. The project intended to accomplish the following activities.

- (i) To give farmers knowledge on the constitution development and registration procedure. Funds mobilization and development the self-helping organization.
- (ii) To train tomato farmers on how to increase tomato production increased tomato production, adding value, find and link to the market.

So the major expected output of the project is to improve income of the community which can help them improve their economic statues and meet their social need at their household level.

4.4 Project Planning

Planning is a key component to project implementation and management .A careful project planning is important for good intended out puts. This was done in a participatory way by involving the target community in order to arrange the activities which will be involved in the project .The process include activities identification sequencings, timeline, resource needed and the budget required to fulfill those activities. The identified activities were intended to attain project objectives; output activities in respect to the resource needed are shown. The lists of activities which are needed are summarized in table bellows:

Table 12: Project Implementation Plan

Objective	Activities	Project Months											Resource s Needed	Responsib le Person
		sept13 12013	oct 13	nov 13	dec 13	jan 14	feb 14	Mar 14	april 14	may 14	june 14	july 14		
Facilitate the formation and registration of local association for social and economic purpose among three groups in Bukanga hamlet	Conduct participatory needs assessment												Car, fuel Expert Groups members	CED student TCDO WEO Hamlet community
	Assist groups registration													CED student TCDO GROPS MEMBERS
	space and collection point Open bank a/c for groups												Funds ,groups Member, MALDO office	CED student and community developme nt officer
	Groups Formation seminar												,Groups Member, MALDO office Flip chart Note book	CED student and community developme nt officer
To ensure that 80% of the member	Identify and train project committee on												Transport costs,	CED student &

have business skills training and able to keep their business record by 2014	its role in the project Training on book keeping ,														Personals MCDO	municipality Community Development Officer
	Training on book ,Entrepreneurship keeping skills and live skills														Personal and funds	CED student & Other stakeholders
To increase income of tomato farmers from 20% to 70% by 2014	tomato market linked														Stationary, fuel and training venue	Extension worker
															Stationary, fuel, food, training venue	Extension worker
	Enhance farmers linkage to market														Transport, stationary	CED students and community development officer
	Identify and train project committee on its role in the project Training on book ,Entrepreneurs hip keeping skills and live skills														Funds note book, Worksho room, Participa nts. Training manual	

Source Field Survey Finding 2013

4.4.1 Project training Methods

The project training methods which were used during the training course were a mix of the methods including;

Role play –best for adult

Group's discussion

4.4.2 The Project Training Manual

The CED student will provide a training manual guide from the project he is working for review and adaption.

4.4.3 Project Implementation Report

4.4.3.1 Participatory Need Assessment of Community and Community

Prioritize

The community need assessment was conducted in September 2013 reveal that the most pressing needs of the community of Bukanga was low income, the project which make them to have sustainable means of improve the income was improving of tomato farming. The targeted 3 groups of 30 tomato farmers agreed if they could be given knowledge on modern tomato farming they will improve their income as the result improvement of their livelihood.

4.4.3.2 Conducting Training

A training was conducted by expert agriculturalists from musoma municipal and TCDO. The 3 tomato farmers groups consisted 30 farmers participated in training of tomato farming techniques which took place once every Friday for two monthly of November and December 2013 conservatively during the middy day time. This is the time when farmer are bit free.

4.4.3.3 Registration of Groups

The tomato groups hire lawyer who helped them in writing of the constitution and registration of the process and registration took 2 monthly. The constitution shows the name of the groups, start date, mission, vision, organization structure, and responsibility of each one in the groups.

4.4.3.4 Office Space and Collection Points and Opening of the Bank Account

Office space, collection point and bank account for the groups were obtained at the end December, the space is within Bukanga hamlet near community local government. At the end of December 2013 the farmers groups opened the account for initial.

4.4.3.5 Training on Entrepreneurship, Project Management and Life Skills

The training was prepared for purpose of empower Bukanga Tomato groups farmers to involve in small income generation activities. This was facilitated by various experts from the outside and municipal office. For instance entrepreneurship and keeping records as well as project management where the groups member provided with knowledge on business skills, packaging and marketing skills were facilitated by Municipal community Development officer while life skills education facilitated by community development expert community Dr. Kayombo.

4.4.4 Staffing Pattern

Staffing plan include leaders of TCDO and other stakeholders outside organization with specific duties.

Table 13: Staffing Pattern

Title	Job distribution	Supervisor Role
Technical adviser (CED Practitioner)	Project coordinator	Supervisor adherence of the work plan
TCDO Leaders	Mobilizing community members and organized all activities to be executed.	Ensuring availability of community member at right time as planned.

Source Field Survey Finding (2013)

4.4.5 Project Input

An input to any resource going into conducting and carrying out the project the required in put for project include finance, stationary, staff and time the main input needed for implementation of the project are given in Table 14.

Table 14: Project Budget

S/NO	Particular	No. of Units	Costs Per Unit	Total Amount
1.	Local government leaders and logistics	-	-	2.000,000/=
2.	Stationery	Assorted	Assorted	500,000/=
3.	Facilitation expenses	-	-	500,000/=
4.	Transport	-	-	1500,000/=
5.	Project report preparations	-	-	500,000/=
	Total amount			5,000,000.00

Source: Field Survey Finding (2013)

4.4.6 Project Implementation

This sub section covers the project implementation report where details on how the activities were carried out and the project implementation Gantt which indicates time used in project activities implementation.

4.5 Project Implementation Summary

All activities contributed to project goal of increasing the income of farmers through improved tomato farming. Tomato farming intervention was identified by community during community need assessment. This forms a basis of achieving the

project goal. Series of training were conducted and groups acquired knowledge on appropriate farming skills, marketing and processing skills which made them produce good quality tomato, have higher the bargaining power and value addition which consequently increased income.

Table 15: Project Implementation Logic Framework Matrix

Planned				Accomplishment
Objective	Out put	Activities	Out put	Comments
Facilitate the formation and registration of local association for social and economic purpose among three groups in Bukanga hamlet	Tomato group members have registered the groups and have a/c	Group's member will be trained on leadership skills and importance of groups.	Groups members are have open bank a/c and have registration	Done
	Tomato group members have modern tomato farming skill and serving technique	Group members will be trained on tomato farming skill such as tomato farming disease control, tomato perk aged	Groups members are having modern technique of farming	Done
Facilitate the formation and registration of local association for social economic purpose among three groups in Bukanga hamlet	Member are able to follow constitution proper	Train members on leadership skills	Members have confidence and trust to groups leaders	Done
To increase income of the tomato farmers groups from 20% to 70% by 2014	Tomato group members have knowledge of market finding and linked	Train tomato groups on market finding and linked	Groups members are having knowledge of finding market and linked	Done

Source Field Survey Finding (2013)

CHAPTER FIVE

5.0 PARTICIPATORY MONITORING, EVALUATION AND SUSTAINABILITY

5.1 Introduction

This chapter explains participatory monitoring and evaluation in terms of design methods and tools used to define and elaborate project goal and objective. Aspect of sustainability was to evaluate to see durability and continuity of the project. It explain how data and information were gathered and analyzed to identify problems, formulate solution, monitoring and evaluate performance. This section therefore will elaborate how progress were measured during all stage of implementation.

Involvement of beneficiaries throughout project conception, planning, implementation, monitoring and evaluation stage is invisible to ensure project sustainability. Participation takes different forms, ranging from information sharing and consultation methods, to mechanism for collaboration and empowerment that give beneficiaries more influence and control project.

Participatory approach allows for real need of beneficiaries to be taken on board stage. Involving the community from the beginning ensures that the project revolve around people' felt need, and is therefore more responsive to local condition. The participatory process also builds and promote the community's ownership of the project. These are importance factors that contribute to the success and sustainability of any community activity.

5.2 Participatory Monitoring

Monitoring is the pillars of progress indication of any project. These parameters gave an in-depth on the project impact realization after implementing the planned activities. The most common methods which were used in this project were Participatory Rural Appraisal, action plan and beneficiary assessment. Quarterly meetings with the community were other forms of monitoring. Quarterly meeting were conducted to assess the work progress and plan for subsequent actions.

Field and sartorial reports were discussed and resolutions made. The community trainers submitted the reports to hamlet extension workers and hamlet government leaders. Regular follow-up visits were set by extension staff and community trainers and were producing field reports and submitted them to Project coordinator (CED student).

5.2.1 Monitoring Information System

The process of collecting date and analysis of the information and generate further analytical information which can be used for management decision and shared to other stakeholders and the information system had to shared with different member in the group.

The tools include survey and questioners, interview, focus groups and observation. The monitoring activities include collecting and processing data at all levels. A format and procedure for collecting, recording and reporting date ware collected on regular basis by those directly involve in the project. Report were written and kept by various parties during the process of implementation these include the project

committee TCDO and MCED students various farmers were used to keep records including files and computer for typed report which were also filed later. The information was harmonized during feedback session to update status of implementing activities.

- (i) Are the planned activities conducted on schedule?
- (ii) Are in put available as planned?
- (iii) Are any obstacles as planned?
- (iv) Are there any obstacle and gaps to implementation?
- (vi) How are we going to address them?

5.2.2 Monitoring Methodology

Monitoring was usually conducted as ongoing activities throughout the project life. The monitoring team collected information and record observation during on site visit, this information was letter complied by the researcher to be discussed by the stakeholders and amendment of the project execution where necessary and also during evaluation. Where activities were found deviating from the plans, it was reported to the organization and accordingly. Monitoring plans were first developed in participatory manner.

5.2.2.1 Participatory Monitoring Objective

The objective of the participatory monitoring was to build a spirit of ownership of the project to the target group and to bring the attention of the project implementers to any changes relevant to the project implementation. This monitoring exercise was done to keep an eye on or to supervise what is going on.

5.2.2.2 Participatory Monitoring Questions

Monitoring has five major questions on hand while being conducted including;

- (i) Were the planned activities done as per time schedule?
- (ii) Was the available resource used in sustainable, economical and viable manner
- (iii) Was costing done as per plan
- (iv) Did the execution process engaged all stakeholders fully
- (v) Were there any foreseen risk that could hinder the expected output

5.2.2.3 Monitoring Design and Methods

Participatory monitoring method was adapted to accomplish monitoring exercise. The monitoring of this project was a combination of participatory approaches including participatory impact monitoring (PMI) and Beneficiaries Assessment BA a combination of these was employed to insure high degree of variability data collected for analysis. While PIM looked to the implementation visa viz planned activities, the BA was employed to validate the response of the beneficiaries to the project by interviewing them.

5.2.2.4 Participatory Monitoring Tool

Two major tools were used in monitoring

(a) Report follows up

Follow report was done by actual visit to member groups and reading implementation reports to establish whether what is happening on the ground is what exactly planned and agreed.

(b) Beneficiary Assessment

This is one of the most effective participatory monitoring tools as it plays as both progress indicative and disaster early warning tool. In this project, this was used mainly during field visits, interview, with key informants and focus discussion where by member were given views and opinions on the direction and progress of the organization restructuring process envisage member groups outcome their narratives were recorded.

5.3 Participatory Monitoring Plan

A monitoring plan that was developed and used as well as monitoring finding is shown in table 16 follows up was done by actual visit to member groups and reading implementation reports to establish whether what is happening on the ground is what was exactly panned and agreed. It was observed that, facilitators were available all the time requested to facilitate the training, training materials were sufficient and other inputs were available and all people planned to be involved were fully cooperating. This included the tomato farmer's group's member to which the project was intended.

5.4 Participatory Evaluation

Evaluation is a systematic investigation of the worth or merit of an object. The aim of the evaluation is to know if the set goal and objectives have been reached. The evaluation provides the information which help to improve the project. The information is for researcher, project staff, community and government. Evaluation gives evidence and guidance as to whether funding should continue to particular project or not. Evaluation was mainly done to answer the following questions, what

was done? What was achieved? What was learned? What else is needed? (CED: 2002).

Table 16: Participatory Monitoring: Summary

OBJECTIVES	ACTIVITIES MONITORED	PROGRESS	TOOL USED	PLANNED TIME	ACTUAL TIME
FACILITATE THE FORMATION AND REGISTRATION OF LOCAL ASSOCIATION FOR SOCIAL ECONOMIC PURPOSE AMONG THREE GROUPS IN BUKANGA HAMLET	PREPARATION OF TRAINING MANUAL -TRAINING SESSION APPLICATION OF THE KNOWLEDGE AND SKILLS	TO ENSURE THAT 80% OF GROUPS MEMBERS HAVE BUSINESS SKILLS TRAINING AND ABLE TO KEEP RECORD BY 2014		SEPT 2013	SEPT & OCT 13
TO ENSURE THAT 80% OF GROUPS MEMBERS HAVE BUSINESS SKILLS TRAINING AND ABLE TO KEEP RECORD BY 2014		ALL 10 TEN MEETINGS WERE CONDUCTED	FIELD REPORT	Nov 2013	OCT.2013
TO INCREASE INCOME OF THE TOMATO FARMERS GROUPS FROM 20% TO 90% BY 2014	TOMATO GROUPS MEMBERS TRAINED ON DYNAMICS	95% RECEIVED TRAINING	ATTENDANCE LIST	FEB 2014	DEC 2013
	AT LEAST FOUR MEETING CONDUCTED WITH MUSOMA MUNICIPAL COMM. DEV. OFFICER	FOUR MEETINGS WERE CONDUCTED AND REGISTRATION OF FOUR GROUPS WAS ACCOMPLISHED	REPORT, INTERVIEW AND REGISTRATION CERTIFICATE	FEB 2014	DEC 2013

Source Field Survey Finding (2013)

5.4.1 Performance Evaluation Indicator

There was need to examine the performance of the project since its commencement. The evaluation also aimed at enhancing the best practices of the project. Indicator that used for comparison in evaluation those listed in the logical framework used during planning include:

- (a) Number of the farmers members trained
- (b) Number of the farmers who participate in project management
- (c) Self confidence in tomato farmers groups as result of training
- (d) The improvement income of groups due to tomato farming

5.4.2 Participatory Evaluation Methods

The evaluation was planned and conducted on a monthly basis by the same monitoring team and by involving all the 3 farmers groups who were the project beneficiaries. In the evaluation mission, assessment was on whether the implementation of the planned activities was line with the project work schedule and outcome /impact on the attainment of the objective.

According to the CED Training Guide for peace corps volunteers (2002), an evaluation is a systematic of the a project to determine its efficiency, effectiveness, impact sustainability and the relevance of its objective. Evaluation can be the last things in the project cycle however the effectiveness at each stage of the project life cycle can be evaluated.

In the exercise, both summative and formative evaluation was conducted. In the formative evaluation, concentration was on guidance and recommendation designed

to strengthen or improve the project, enhance performance and productivity. Formative evaluation included all stakeholder of the project who was off course the key players in the project. In summative evaluation, concerned was on concrete measurable outcome that would directly to be derived from the project itself, looking on the outcome for the objective. A final evaluation was to be conducted to enhance performance of the project and to ensure its sustainability there after however because of time limit this was not done.

A combination of the research methods were used including Impact Monitoring (PIM) Action plan Responsibility (APR) and Beneficiaries Assessment (BA) PIM was used in finding out what impact the project has crated to the farmers groups and the whole Bukanga community. Checklist was used to interrogate the Bukanga farmers and same randomly selected stakeholders. Likewise a combination of data collection methods was used such as interview, observation, and discussion with focus groups discussion and interview was conducted to the beneficiaries.

While discussion with key informants and direct observation as means of date collection were also employed in order to have a wide range of the information on the progress and achievement of the activities and objectives. Any information gathered was shared with all the project stakeholders to keep all of them up dated to enhance contribution of the news ideas for the progress of the project.

(i) Evaluation Research Tool

Tool employed during the evaluation of the project focused on the group discussion, observation and personal date. Two major tools were used in the evaluation.

- (a) Follow up was done by actual visits to member groups and reading implementation reports to establish whether what is happening on the ground is what was exactly planned and agreed.

(ii) Beneficiary Assessment

This is one of the most effective participatory evaluation tools as it play as both progress indicative and disaster early warning tool. Beneficiaries interviewed included all of the groups of the farmers in a group discussion the hamlet.

(iii) Participatory Evaluation Objective

Formative Evaluation seeks to strengthen or improve a program. The formative evaluation has to analyze the intervention logic, outcomes, results and impacts. The objective formative evaluation is examining among other things the delivery of the program me, quality of its implementation, the organization context, personnel, structures and procedures. The formative evaluation has to analyze the intervention logic, outcomes, results and impacts.

(iv) Evaluation Research Questions

Research questions were developed as for monitoring, in this case questions are result or impact oriented, like to what extend has the project improved the quality of the beneficiaries in the project area through traditional poorly keeping improvement?

(v) Evaluation Design

The survey aimed at getting general information. The characteristic of the survey like questionnaire administered to sampled household. The duration of research was one week. CED student, TCDO Extension worker and government extension workers were involved in designing and conducting survey.

5.4.3 Project Evaluation Findings

Through tomato farming the income of the group's members was increased from Tshs 93,000/= to 170,000 per months per members. This has resulted into improvement of living standard as well as saving as capital for new IGA. The groups of the farmers given the knowledge on entrepreneurship and project management skills to 30 members on the life skills education improve the host organization capacity to deliver service to their clients, also The group's individual members have started backyard poultry project local chicken and ducks. That enables them to improve their income.

5.5 Project Sustainability

5.5.1 Project Sustainability Elements

Musoma Municipality council, other development actors and community were fully involved in identification of the project. More capacity building in terms of knowledge has been the main component of the project. This component is very important for project sustainability.

5.5.1.1 Financial Sustainability

Financial sustainability is the ability of a project to mobilize and efficiently use internal and supplement external resources on reliable basis to achieve the current and future target performance. Prerequisite for financial sustainability of groups, include having diverse funding source, sufficient management, strategic thinking, strategic action, and good public relation. Groups are still weak financially, Training of tomato farming have enable farmers to increase their capacity to accumulate capital that used for adding up same IGAs. Financial policies and mechanism put in

place with the assistance of the community economic development officer to enable further capital accumulation. Members' mindset toward doing financial feasible activities has also increased.

5.5.1.2 Institutional Sustainability

Development actors like local and central government, institutions and organizations were involved to participate in the project. The groups have their management structure which consists of project coordinator, chairperson, secretary and treasurer. The general assembly meeting is the final decision making instrument in the management. The project committee members meet to review and evaluate their group. These groups are under the government supervision at hamlet, ward, division and municipal council levels. The project work has been handled over to Musoma municipality council which has promised to continue to support the initiative in improving the tomato farming groups. The farmers are well linked to the input shops and hence will continue to access to agro inputs endlessly.

5.5.1.3 Political Sustainability

The project is in line with the government policy of poverty alleviation, therefore this initiative is supported by the government. For example some of the farm inputs prices have been subsidized.

The policy statements for poverty alleviation, like Tanzania Development Vision of 2025, second millennium development goal, NSGPRP, NPES, PRSP show that there is a political will for improving Tanzanian income. Also the agriculture policies are in favor of improving agriculture sector for poverty alleviation.

5.5.1.4 Technical Sustainability

Musoma municipality council has employed one extension officer staff in 2012 as the effort to improve the agriculture sector. TCDO also agreed to give technical advices to tomato growers in Bukanga hamlet. The existing community trainers/ farmer motivators will help tomato growers to get basic extension services in the hamlet.

Table 17: Summary Table of Sustainability

Sustainability Plan	The Actual Sustainability to Date	Challenges	Ways Forward
Development of phase in/out strategies.	The communities were well aware that the project has to start and end. This gives them good preparation. The project supervision has been left under community trainers, hamlet development committee, hamlet government leaders	Some community members are rigid to understand the concept of phase in/out.	Donor dependency should be abandoned to the community by increasing community awareness to use their local available resources.
Identify and train project committee on its roles	10 committee members received training on their roles	It is difficult for some committee member to understand the concept of volunteerism	Refreshers training on concept of volunteerism needed.
Training community trainers on tomato farming.	Four community trainers were trained and are giving extension services to fellow farmers.	They are restricted to do certain veterinary services only.	To convince the government to employ more extension worker
Community participation and empowerment	The community members were full involved in identification, implementation, Monitoring and this has built a sense of ownership.	Some target members are reluctant to participate in the project.	Community need long time awareness to participate fully in the project.
Government policy of poverty alleviation	The government extension workers in hamlet are helping to provide extension services in hamlet	Shortage of extension workers and facilities in villages.	The government should empower facilitate the extension workers with bicycles or motorcycles for ambulation.
Cost sharing plan for the resources.	The communities contributed during training	Element of demanding allowances still exist to farmers	More awareness needed on cost sharing attitude.
Involvement of other stakeholders in the project	Other stakeholders who working in Musoma municipality were full involved in the project	Transparency is a big problem among many stakeholders	The development actors should be transparent at all levels. The government should make follow up to know what each development actor is doing.

Source Field Survey Finding 2013

5.5.2 Sustainability Plan

There is well-developed phase out structure with the community and the responsibility of the project supervision is left at the community under community trainers, hamlet development committees and hamlet government leaders. The community trainers will submit monthly report to hamlet development committee and hamlet government leaders.

5.5.3 Sustainability Indicators

The sustainability indicators include:

- (i) There in-kind and money contributions from individual members.
- (ii) Group members are receiving loans from microfinance institution.
- (iii) Community trainers are active giving advices to tomato farming.
- (iv) There are benefits at household level as the result of improved tomato farming.

CHAPTER SIX

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter consist of summary of whole project in two main part namely conclusion and recommendation .It briefly explain CNA and its findings summarize literature review finding, the reasons which guided the choice of the project, project implementation, sustainability plan. It farther identifies any unexpected occurrence that my greatly affected ability to complete the project. It also gives recommendation to the host organization and future intended stakeholder to perpetuate the same ideal advocate in this project.

6.2 Conclusion

Farmers of Bukanga hamlet identified tomato as an alternative crop for income through participatory community need assessment. The literature on tomato production has great role in income generation, but the industry is like to be neglected, this might due to unreliable data on its contribution to the economy of the countries. Even the government in Tanzania policies has not shown clear on the direction of tomato farming improvement.

With short duration of the project implementation, there were some achievements at the field level. Some activities were not completed due to the time limit which includes linking farmers to private agricultural inputs and markets. The sustainability of this project will mainly depend on the commitment of the empowered community to continue with efforts in place. Since this project is line with the government policy

of poverty alleviation it is expected that the government extension workers and other actors will to upscale this initiative.

6.3 Recommendations

The empirical results of this project indicate that market chain systems are positively and significantly related to increase in the quantity of tomato production. Therefore, to strengthen the existing market chain systems, the market centers or marketing agencies should give proper attention to enhance tomato production. Tomato weed, tomato frost, disease and pests are the major constraints in the tomato production. Farmers do not know to control these problems or how to use different chemicals. Therefore, concerned department officials should give more emphasis on training programme on different modern agricultural practices, so that they can reduce crop damage.

Efforts should be made to undertake certain value addition activities for the tomato production available locally processed or semi-processed activities at the primary level through multipurpose cooperatives or community based organizations that should develop the relevant rural technologies for processing/value addition of tomato production. This may help the Tomato producers to gain much with limited cost. Owing to the lack of proven post harvesting techniques farmers have been facing the problems of deterioration in quantity and quality of tomato. Hence, there is a need to build the capacities of the farmers on post-harvesting techniques, i.e., grading, sorting, cleaning, packing, etc. These measures may also help the farmers in obtaining higher returns.

6.4 Areas for Further Research

There is clearly a need of the research in specific areas on the tomato improvement. This may be incorporated in the planning and provision of the services such as education, training and provision of the resource such as credit to the farmers. Instead of the various policies which formulated by the government official and remain in the shelf without implemented there is need of the central government and local government to put this policies into practical so that it helps to create the income to the community.

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APPENDICES

Appendix 1: Utangulizi

Kikundi cha wakulima wa nyanya ni matokeo ya mchakato wa kuangalia mahitaji ya jamii (Community Needs Assessment) ili kuondokana na wimbi la umasikini uliofanywa na Mwanafunzi (Baraka. Wilson Thomas Indah) wa Shahada ya Uzamili (Masters in Community Economic Development) ya Chuo Kikuu Huria cha Tanzania kwa kushirikiana na jamii husika na ‘Tongora community Development Organization’ (TCDO).

Baada ya mchakato huo uliofanyika mapema mwezi wa 9, 2013 ndipo kikundi hiki kikaundwa na wanachama na kuanza kutunza fedha ambazo baadaye zilitumika katika kukopeshana ili kuwawezesha wanachama kupata mikopo isiyo na masharti magumu zitakazo wasaidia kuendesha kilimo cha nyanya na pia kuboresha maisha yao. Ili shughuli za kikundi ziende vizuri ndipo wanachama wakakubaliana kuandika katiba itakayowawezesha kutoa dira katika utekelezaji wa shughuli hizo.

SEHEMU YA KWANZA –UANZISHWAJI.

- (i) Jina la kikundi litakuwa:
- (ii) Anuani ya kikundi S.L. P .1069
- (iii) Simu nanba..... (Mwenyekiti wa kikundi)
- (iv) Tarehe ya kuandikishwa
- (v) Namba ya kuandikishwa.....

- (vi) Idadi ya wanachama waanzilishi ni wakulima wa nyanya katika eneo husika katika mtaa wa Bukanga lenye vikundi 3
- (vii) Eneo la shughuli za kikundi zitakuwa ni Mtaa wa Bukanga kata ya Makoko
- (viii) Fungamanisho(Commoni Bodi) ni wakulima wa bukanga wana saidiwa na TCDO

SEHEMU YA PILI - MADHUMUNI NA MATARAJIO

MADHUMUNI YA KIKUNDI

Madhumuni ya kikundi hiki ni:

- (i) Kuinua, kustawisha na kuboresha hali ya maisha ya wanakikundi.
- (ii) Kupata mahali pa kuweka fedha za wanakikundi Kwa usalama.
- (iii) Kupata mikopo yenye masharti nafuu ya kuendeshea kilimo.na mahitaji mengine.

MATARAJIO YA KIKUNDI ILI KUFIKIA MADHUMUNI

- (i) Kuingia mikataba na mashirika au watu binafsi ili kuwekeza katika kikundi hiki katika kilimo na ufugaji.
- (ii) Kutoa Elimu ya kilimo Kwa wanachama.
- (iii) Kuanzisha na kudeleza shughuli yeyote ya ki-uchumi na kijamii kwa manufaa ya wanachama kama itakavyo kubaliwa na wanachama wote wa kikundi.
- (iv) Kutoa mikopo Kwa wanakikundi Kwa masharti walioyo kubaliana na kiasi kilichokubaliwa.
- (v) Kujenga misingi imara ya kudhibiti ubadhilifu na wizi kwenye kikundi.
- (vi) Kujenga utamaduni wa kulipa madeni ya kikundi kikamilifu.

KATIBA YA KIKUNDI CHA WAKULIMA WA NYANYA

MTAA WA BUKANGA – KATA YA MAKOKO

MANISPAA YA MUSOMA

2013

SEHEMU YA TATU-UANACHAMA

SIFA ZA MWANACHAMA

- (i) Awe mwenye umri usiopungua miaka kumi na nane.
- (ii) Mwenye jinsia ya kike au kiume.
- (iii) Awe mwenye uwezo wa kusimamia mradi wake wa kilimo.
- (iv) Awe mwenye akili timamu.

TARATIBU ZA KUJIUNGA KATIKA KIKUNDI

- (i) Maombi ya mwanachama yatafanyika kwa njia ya maandishi kwa mwenyekiti wa kikundi na mwenyekiti atawasilisha kwa wanachama wa kikundi na wakimkubali basi atataarifiwa kwa barua na kuelezwa hatua ambazo anatakiwa kuzifuata ili awe mwanachama kamili.
- (ii) Ataandikishwa kwenye daftari la kikundi.

VIKAO VYA KIKUNDI

- (i) Vikao vya kikundi vitafanyika kila wiki na taarifa mbalimbali za kikundi zitasomwa.
- (ii) Kila mwisho wa mwezi viongozi na wanakikundi watakutana kuzungumzia maendeleo ya kikundi na kujadili swala la uchukuaji na urejeshaji wa mikopo.

HAKI ZA MWANACHAMA

- (i) Kushiriki katika shughuli zote za kikundi kwa kufuata kanuni na taratibu za kikundi hiki.
- (ii) Kuhudhuria nakutoa maoni yake katika mikutano ya kikundi.
- (iii) Kuchagua au kuchaguliwa

WAJIBU WA MWANACHAMA

- (i) Kulipa madeni yote ya kikundi kikamilifu kwa muda uliopangwa.
- (ii) Kuwa mwaminifu ndani na nje ya kikundi

- (iii) Kutoa taarifa kwenye uongozi wa kikundi iwapo mtumishi au kiongozi anatoa huduma kwa upendeleo au anafanya jambo lolote linalo hatarisha maslahi ya kikundi.
- (iv) Kuhudhuria vikao vyote vya kikundi vinavyomhusu.
- (v) Kujielimisha kuhusu shughuli zote za kikundi.
- (vi) Kuyaelewa masharti ya kikundi na kuyafuata.

KUSIMAMISHWA UANACHAMA

- (i) Atasimamishwa Kwa sababu ya kushindwa kulipa mkopo wake katika muda ulio pangwa na kikundi pasipo kuwa na sababu inayo kubalika na wanachama wengine.
- (ii) Kufanya kitendo chochote ambacho kikundi kitaridhika kuwa ni kitendo cha kutokuwa mwaminifu na kinyume na maadili ya kikundi na ni lazima ithibitishwe na moja ya mwanachama. Mwanachama huyu atatozwa faini ya shilingi elfu tano (5,000/=) na mara ya pili atafukuzwa uanachama na 10% ya fedha zake zitakatwa kwa ajili ya usumbufu.
- (iii) Kufungwa jela kwa muda wa miezi mitatu na kuendelea kutokana na kosa la jinai na kutokuwa mwaminifu.

FAINI MBALIMBALI KWA WANAKIKUNDI

- (i) Wanachama atakayeongea ndani ya mkutano wowote wa kikundi bila ya ruhusa ya mwenyekiti atatakiwa kulipa faini ya shilingi mia tano (500/=)
- (ii) Mwanachama ambaye simu yake itaita kwa sauti kubwa na kusababisha kuharibu kwa mazingira ya utulivu atalipa faini ya shilingi mia tano (500/=)

- (iii) Mwanachama atakayechelewa kufika kwenye mkutano wa kikundi kama ilivyokubaliwa na wanachama wote atatakiwa kulipa faini ya shilingi elfu moja (1000/=).
- (iv) Mwanachama yeyote atakayefiwa na Mume/Mke, watoto Baba/Mama atachangiwa shilingi elfu tano (5000/=) na kila mwanachama wa kikundi hiki.
- (v) Mwanachama atakaye shindwa kuhudhuria mikutano ya kila wiki bila sababu ya kueleweka atatoa faini ya shilingi elfu (2000/=)

UANACHAMA UTAKOMA KWA

- (i) Ugonjwa wa akili ulio thibitishwa na daktari.
- (ii) Kufukuzwa uanachama katika kikundi kwa kupigiwa kura ya wanachama isiyopungua theluthi mbili $\frac{2}{3}$ ya walio hudhuria na hii ni baada ya kupewa nafasi ya kujitetea kutokana na makosa aliyo yafanya.
- (iii) Kifo cha mwanachama.
- (iv) Kujadiliwa katika kikao cha wanachama na baada ya hoja yake kushindikana ataandika barua ya kujitoa katika chama na atapewa mafao yake ndani ya siku tisini (90).

VIKAO VYA KIKUNDI

- (i) Vikao vya kikundi vitafanyika kila wiki na taarifa mbalimbali za kikundi zitasomwa.
- (ii) Kila mwisho wa mwezi viongozi na wanakikundi watakutana kuzungumzia maendeleo ya kikundi na kujadili swala la uchukuaji na urejeshaji wa mikopo.

SEHEMU YA TATU - UONGOZI

SIFA ZA VIONGOZI WA KIKUNDI

- (i) Kiongozi lazima awe mwanachama wa kikundi aliyelipa hada yote.
- (ii) Kiongozi ni lazima hatimize mashariti ya uwanachama wa kikundi.
- (iii) Ni lazima ajuwe kusoma na kuandika.

MIKO YA KIONGOZI

- (i) Asitumie dhamana na madaraka yake kwa ajili ya kujinufaisha yenye mwenyewe tu, na familia yake kwa kutoa maamuzi ya upendeleo.
- (ii) Kutohujumu kikundi kwa njia yoyote ile au kufanya mambo ambayo ni siri bila kutumia vikao halali kinyume na dhamana aliyopewa.

KUKOMA UONGOZI/UANACHAMA

- (i) Kwa kujiondoa mwenyewe, kujiuzulu uongozi au uanachama.
- (ii) Kuachishwa au kufukuzwa kwa mujibu na kanuni hizi kukiukwa.
- (iii) Kuondolewa kwa kushidwa kutekeleza wajibu wake ambao Kwa kufanya hivyo itabainika kuwa kutaliletea kikundi hasara Fulani au kuhatarisha maendeleo ya kikundi.

KUCHAGUA VIONGOZI WA KIKUNDI

- (i) Kiongozi atachaguliwa Kwa kura za siri na wanakikundi katika mkutano mkuu.
- (ii) Wajumbe watakao luhusiwa kufanya uchaguzi wanatakiwa wasipungue nusu ya wajumbe wote wa mkutano mkuu wenye haki ya kupiga kura.

- (iii) Kama kura zikilingana uchaguzi utarudiwa mara ya pili na Kama zikilingana tena mwenyekiti atatumia kura ya turufu kutaa mahamuzi.
- (iv) Muda wa uongozi utakuwa mwaka 1 kiongozi anaweza kuchaguliwa tena baada ya mwaka kwa vipindi viwili kama ataonyesha uwezo wa kuongoza.

VIONGOZI WAKUU NA WAJIBU WAO

(a) Mwenyekiti

- (i) Atawakilisha ndiye msimamizi mkuu wa shughuri za kikundi
- (ii) ii) Ataongoza kamati yote ya kikundi kama mkutano mkuu na wa kamati tendaji
- (iii) Atakuwa msimamizi mkuu wa mkuu wa mali za kikundi na kukemea mabaya yanayoweza tokea na atachaguliwa na mkutano mkuu wa wanachama wote wa kikundi.
- (iv) Atakuwa katika wasifa huo kwa miaka 2 lakini anaweza kuchaguliwa tena kuendelea na wasifa huu kwa kipindi kinachofatia iwapo kazi zake zitakuwa za manufaa kwa kikundi.

(b) Makamu mwenyekiti

- (i) Ataendesha vikao vya kikundi kama mwenyekiti wakati /iwapo mwenyekiti mtendaji atakuwepo.
- (ii) Atakuwa mwenye wadhifa huu kwa kipindi cha mwaka 1 baada ya kuchaguliwa
- (iii) Atakuwa katika wadhifa huo kwa kipindi kinachofatia iwapo shughuli za utendaji

- (iv) wake
- (v) Utalidhisha mkutano mkuu

(c) Katibu

- (i) Atachaguliwa na mkutano mkuu wa kikundi.
- (ii) Atakuwa ndiye mtendaji mkuu wa kikundi chini ya mwenyekiti mtendaji na muitishaji wa vikao vyote vya mikutano..
- (iii) Kufatilia na kuangalia usalama wa mali ya kikundi.
- (iv) Atakuwa mwenye wadhifa huu kwa kipindi cha mwaka 1 baada ya kuchaguliwa.
- (v) Atakuwa katika wadhifa huo kwa kipindi kinachofatia iwapo shughuli za utendaji Wake utalidhisha mkutano mkuu.

(d) Muhazini

- (i) Atachaguliwa na mkutano mkuu wa kikundi
- (ii) Atakuwa mtunza fedha na kumbukumbu zote za fedha na ya mali ya kikundi atafanya kazi chini ya mwenyekiti.
- (iii) Atatoa taarifa sahihi ya mali na fedha za kikundi kila inapo bidii na kuandaa na kuwasilisha bujeti ya kikundi.
- (iv) Kuanda na kufanya malipo kwa niaba ya kikundi baada ya malipo kuidhinishwa na kikundi.
- (v) Atakuwa mwenye wadhifa huu kwa kipindi cha mwaka 1baada ya kuchaguliwa

- (vi) Ndiye anayetaharisha taarifa zote za kila mwezi za mapato na matumizi ya kikundi na kuzisoma katika vikao uhusika.

SEHEMU YA NNE: MIKUTANO NA VIKAO VYA KIKUNDI

Kikundi kitakuwa na vikao vya:

- a) Mkutano mkuu
- b) Kamati tendaji

MKUTANO MKUU

Mkutano mkuu Mwaka wa fedha wa kikundi utakuwa unaishia July 1 na mambo yafuatayo yatafanyika katika mkutano huu:

- (i) Kuchagua viongozi wapya Kwa ajili ya mwaka mpya wa fedha wa kikundi (mwenyekiti, makamu mwenyekiti, katibu, mweka hazina)
- (ii) Mweka hazina atatoa hesabu yote ya mwaka na faida iliyopatikana.
- (iii) Kukumbukumbu zote za fedha zitakaguliwa na kutolewa maamuzi na wanakikundi wenyewe.
- (iv) Kutathimini maendeleo ya kikundi
- (v) Kupanga tarehe ya kuanza mzunguko mpya na mahala pa kufanyia mkutano wa kikundi

VIKAO VYA KAMATI YA UTENDAJI.

- (i) Kamati ya utendaji ya kikundi hiki itakuwa na wajumbe 4. Mwenyekiti, Makamu mwenyekiti, Katibu, Mweka hazina.

- (ii) Wajumbe wa kamati ya utendaji watahika madaraka kwa muda wa mwaka mmoja tu na wanaweza kugombea tena kama watakuwa tayari kufanya hivyo.
- (iii) Kamati ya utendaji pia itatakiwa kuwa makini katika kukopa fedha nje ya kikundi. Ni vyema kamati ya utendaji iwehamasishe wanachama kukopa fedha katika kikundi nahii itasaidia wanachama kuboresha maisha yao. Ni vyema fedha zote zikopeshwe kwa wanachama badala yakukaa benki..
- (iv) Kamati ya utendaji itakuwa na mamlaka ya kusimamia shughuli zote za kikundi zilizo amuliwa na wanachama wa kikundi.
- (v) Kupokea maombi ya wanachama wanaotaka kujiunga.
- (vi) Maoni ya wanachama yatajadiliwa na wanachama wote katika kikundi na mwanachama atakaye jiunga ni muhimu akawa kwenye kikundi kimoja na yule aliye mleta.
- (vii) Kuhakikisha kuwa wakopaji wanarejesha madeni yao kama walivyoahidi na kuwachukulia hatua za kisheria wakopaji wasio waaminifu.
- (viii) Kusimamia matumizi yote ya kikundi.
- (ix) Kuandika na kutunza mihutisari ya majadiliano na maazimio yote ya mikutano ya kikundi
- (x) Kufanya kazi nyingine zozote kama zitakavyoamriwa na wanachama wa kikundi.

SEHEMU YA SITA: MAREKEBISHO YA KATIBA

Kama kuna mabadiliko au marekebisho ya katiba yoyote ya katiba lazima yafanywe na mkutano mkuu isipokuwa kama ni kwa sababu ambazo haziwezi kusubiri mkutano mkuu lakini kama itakuwa hivyo ni budi kiitishwa kikao.

SEHEMU YA SABA: HAKI ZA KISHERIA

Kwa mujibu wa sheria, kikundi kina haki ya kushitakiwa na kushitakiwa, au kushitaki, lakini katiba haimulindi mwanachama au mtendaji kazi binafsi atakayoshtakiwa kwa kosa lolote lisilohusiana na shughuli za kikundi.

Appendix 2: Questionnaire

Dear respondents this questionnaire is aimed at conducting (Community Need Assessment CAN)

Of Bukanga hamlet .You are kindly requested to fully participate in the interview for the benefit of the community.For the confidentiality do not write your name in this paper.

Questionnaire code number MSCED

Location.....Date.....

1. Majour source of livelihood (tick which is relevant)

- (i) Cash crops
- (ii) Food crops
- (iii) Livestock
- (iv) Employment

2. Education level of the respondent (tick where is relevant)

- (i) Primary
- (ii) Secondary
- (iii) Formal

3. Major community problems (tick the major problem)

- (i) Low income
- (ii) Youth employment
- (iii) Lack of health service

- (iv) Lack of security
- (v) Land degradation

4. What is your average monthly income

- (i) Less than Tshs.100.000-150,000
- (ii) Between 150,000- 200,000
- (iii) Between 200,000- 250,000
- (iv) Between 250,000- 350.0000
- (v) More than 350,000- 400.000

5. Who is making decision in your family

- (i) Man
- (ii) Women
- (iii) Both

6. What are causes of the land degradation

- (a) Tree falling
- (b) Over grazing
- (c) Poor farming

7 What is main disease

- (a) Malaria
- (b) Malnutrition
- (c) Ameba

8. What is main challenge of fishing

- (a) Fishing tool
- (b) An availability of fish
- (c) Unfriendly fishing

9. Types of houses

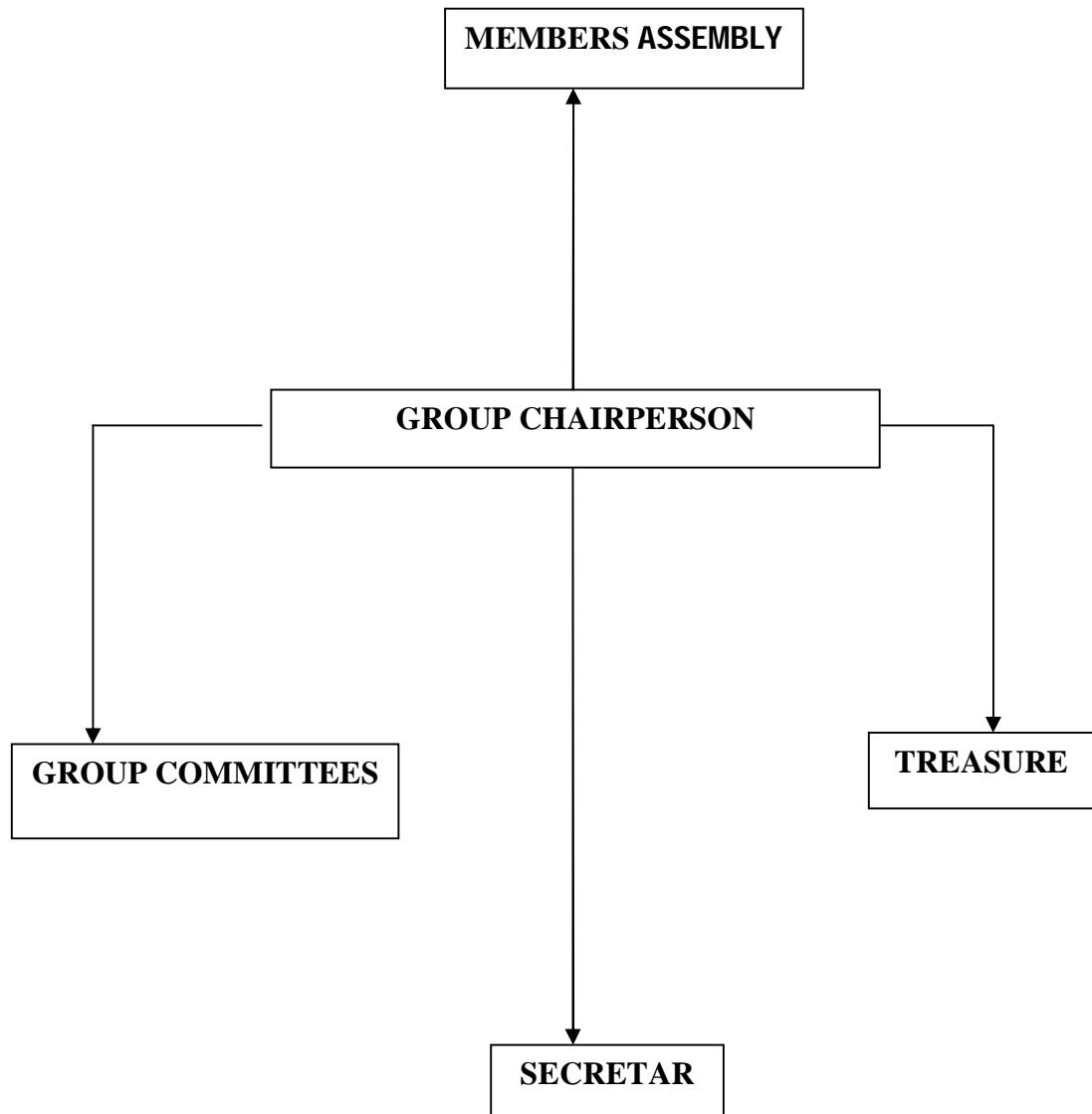
- (a) Mud with glass
- (b) Mud with iron sheet
- (c) Brick with glass
- (d) Burnt block

THANKS FOR YOUR COOPERATION

Appendix 3: Focus Group Discussion

1. What are social –economical challenge
2. What are social-economical opportunities of Bukanga hamlet
3. What are the environment challenge of Bukanga community

Thanks you for listening

Appendix 4: Group Organization Structure

Appendix 5: Fishing Activities at Bukanga Hamlet



Source: Survey Finding (2013)

**Appendix 6: Tomato Farming at Local Market at Majita Road in Musoma
Municipality**



Source: Survey Finding (2013)

