

SOUTHERN NEW HAMPSHIRE UNIVERSITY
&
THE OPEN UNIVERSITY OF TANZANIA
MASTER OF SCIENCE IN COMMUNITY ECONOMIC
DEVELOPMENT
(2007)

INTEGRATION OF CHICKEN KEEPING FOR ORGANIC
VEGETABLE PROJECT, KITOMONDO VILLAGE

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SOUTHERN NEW HAMPSHIRE UNIVERSITY

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**MASTER OF SCIENCE IN COMMUNITY ECONOMIC
DEVELOPMENT**

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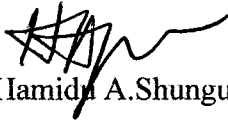
**INTEGRATION OF CHICKEN KEEPING IN ORGANIC
VEGETABLE PROJECT, KITOMONDO VILLAGE**

**A PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF
SCIENCE IN COMMUNITY ECONOMIC DEVELOPMENT
(MSC-CED) IN THE SOUTHERN NEW HAMPSHIRE
UNIVERSITY AND THE OPEN UNIVERSITY OF TANZANIA**

BETTY NGWEGA CHALAMILA

SUPERVISORS CERTIFICATION

I do hereby certify that I have read this work and accept it as scholarly work and recommend it to be awarded a Master degree in Community Economic Development.

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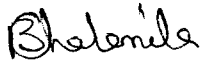
DAR ES SALAAM**January 2007**

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DECLARATION:

I Betty N.Chalamila declare that to the best of my knowledge and understanding that this research is my own work and has not been presented and shall not be presented to any other University or higher learning Institution for the award of degree. However, all sources of information quoted in this report have been fully acknowledged.



Betty N. Chalamila

January 2007

DEDICATION

This work is dedicated to my family and friends who supported me during the entire period of my study. Special thanks to my beloved son's Kelvin and Christopher for their love, patience and understanding.

ABSTRACT

This study was conducted under Mshikamano Women Community Based Organization (MKIWAKI). The need assessment study conducted in September, 2005 showed that the CBO members and leaders were in need of diversifying their sources of income through integration of chicken keeping. The goal of the project in CED terms was to improve the standard of living of the Kitomondo community through participation in business creation. However, leaders and members of the organization had no knowledge and skills to initiate the project. The objectives of the project were; to facilitate the initiation of chicken micro-enterprise to 20 Kitomondo women, increase the productivity of amaranthus and train women on savings and credit scheme. The knowledge and skills were imparted through training and practice.

The methodology used in conducting community need assessment, monitoring and evaluation was face to face interview to 20 trainees, focus group discussion with 15 key informants, observation and review of relevant documents. Descriptive statistic was used as analytical tool. Results showed that about 97% of all planned activities have been accomplished. 20 trained women have been capacitated to establish chicken micro-enterprise and other small enterprise such as food vending, and 15 trainees have been registered with ward SACCOS. Income from chicken sales has increased from Tsh 7,025 to Tsh.59, 950 per year, while vegetable productivity has increased from kilograms 4795 to kilograms 9485. The government should ensure women have access to loan with low interest in order to engage in chicken business for poverty alleviation.

EXECUTIVE SUMMARY

This study was carried out in Kitomondo village under Mshikamano Community Based Organization (MKIWAKI). The project involved establishment of chicken micro enterprise and savings and credit scheme for 20 Kitomondo women. Need assessment study results conducted in September, 2005 revealed that the community is faced with a problem of low household income, which is of greater concern to the whole community. Low income is a result of many and often mutually reinforcing factors including poor crop yield due to prolonged drought, poor soils, and crop diseases. Also lack of employment opportunities, high illiteracy level (50%), and lack of skills on savings and credit scheme and lack of alternative income generating activities contribute to the increase in the problem. The average annual income of most of the households is Tsh.250, 000 per year, which is less than a dollar per day (Ruth Madulu et. al, 2004). High-income poverty level of the household members in Kitomondo village is reflected in food insecurity, high illiteracy level, poor health services and poor houses and lack of other social services such as clean water, credit facilities and secondary schools. Women are more vulnerable to income poverty than men due to social cultural factors, which discriminate them.

The desired condition for the community is to improve their standard of living by reducing income poverty through knowledge and skills in chicken micro enterprise and savings and credit scheme, also creation of new business opportunities. The project goal was to improve the standard of living of Kitomondo community through capacitating women to participate in income generation activities. The main objectives of the project

were to facilitate the initiation of chicken micro enterprise for 20 Kitomondo women, increase vegetable productivity and enhance the establishment of credit and savings scheme.

Evaluation results showed that 20 women have been trained on chicken keeping technologies and they are continuing with the project. Each trained woman has an average of 32 chickens and 15 trained women have joined Kitomondo ward savings and credit scheme. The production of amaranthus vegetable has increased from kilograms 4795 to kilograms to 9485 per acre due to the use of chicken manure.

Income accrued from chicken sale has increased from an average of Tsh 7,025 to Tsh 57,950 per year. Chicken micro enterprise is a viable project since it does not require big initial capital. Cost benefit analysis showed that women can start with only 5 chickens and earn an average of Tsh 100,000 per year for start. However, all trained women have requested for a loan from the Tsh 1 billion allocated by the government to build chicken houses. Government of Tanzania is taking a lot of initiatives to ensure improved livelihood for all Tanzanians by 2025. However, it should give priority to projects which have been initiated by local communities, rather than coming with new ideas, which are not compatible with the real needs of the communities. There is still a need of motivating groups of men and women to participate in savings and credit scheme, which will help them to acquire loan in banks for development activities. Government should ensure that credit intended for rural women reach the intended beneficiaries and the aspect of interest rate should be looked upon.

ACKNOWLEDGEMENT

My heartfelt gratitude is extended towards my supervisor, Mr. Shungu of the Open University of Tanzania for his guidance through all stages of this research work. I am grateful to Mr. Adjibodou Michel Director of Community Economic Development program and Mr. Felician Mutasa for their teaching and guidance during the project development and implementation.

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Gratitude is also extended to the entire academic and non-academic staff of the Community Economic development program. To my colleagues and course mates I say thank you all. Gratitude is extended to the Mshikamano Community Based Organization Kitomondo for their unconditional collaboration.

Most of all, I would like to thank my husband Samuel Chalamila for his financial support, patience and encouragement during the entire period of my study.

ABBREVIATION

ANRDP	African Network for Rural Poultry Development
BTZ	Biotechnology Trust of Zimbabwe
CBO-	Community Based Organization
CED-	Community Economic Development
ETH	Ethiopia
FAO-	Food Agriculture Organization
FARM AFRICA-	The Maendeleo Agricultural Technology Fund (MATF)
IBD	Infectious Bursal Disease
MAFSC-	Ministry of Agriculture Food Security and Cooperatives
MARI-	Mikocheni Agricultural Research Institute
MKIWAKI-	Mshikamano Wanawake Kitomondo
NGO's-	Non Governmental Organizations
PRA-	Participatory Rural Appraisal
SACCOS	Savings and Credit Cooperative Society
SPFS	Special Programme for Food Security
RFA	Region office For Africa
TCP	Technical Cooperation Programme
UNDP	United Nation Development Programme
WID	Women In Development

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CHAPTER I

1.0 COMMUNITY NEEDS ASSESSMENT

This chapter presents the findings of the community need assessment study conducted in Kitomondo village in Mkuranga district. The goal of the study was to identify the assets of a community and determine potential concerns that it faces. Community need assessment is the exercise of asking group or community members what they see as the most important needs of that group or community. The results of the assessment guides future action. In most cases the needs that are rated most important are the ones that get addressed.

A Community Need Assessment is an exercise by which a collaborative partnership gathers information on the current strengths, concerns, and conditions of respective communities. The information comes from many sources--especially key informants, teachers, village leaders, members of NGO's, men, women and youth of that community. The information is elicited by many techniques, including interviews, focus groups, and scanning demographic data collected by local agencies. Because many types of partners participate in a community need assessment the resulting information is broad, accurate, and useful. Community assessments focus on local assets, resources, and activities as well as gaps, barriers, or emerging needs.

1.1 Reasons for conducting a community needs assessment

There are a number of reasons which guided the researcher to conduct a need assessment study:

- To learn more about what Kitomondo community needs are?
- To assess if the need addressed by MKIWAKI is in line with the community need.
- To make sure any actions taken by the researcher are in line with needs expressed by the community.
- To have a deep understanding of the community's strength opportunities, weakness and threat.
- To get more group and community support for the proposed intervention. That's because if people have stated a need for a particular course of action, they are more likely to support it.

Finally the results of a Community Needs Assessment can provide valuable information about what services are needed in the community; how the citizens of Kitomondo view present services; what their recommendations are for improvements; and, identifying any new needs that the community may need to address.

1.2 Characteristics of the survey

1.2.1 Type of survey instrument

The researcher used both qualitative and quantitative method in gathering information. The survey instruments used were face-to-face interviews because most of the female farmers cannot read and write. Also focus group discussion, observation and documentation were used for triangulation purposes. Pilot testing was done to avoid poor wording and long questions. Structured interviews ensured clarity of the questions because respondents had a chance to ask and get clarification of the questions.

1.2.2 Reasons for choosing in person interview, observation and record review

The researcher selected in person interview because 90% of the intended beneficiaries were illiterate, as they cannot read or write. Observation method was used for the purpose of getting direct information about behavior of individual and groups. Also it enabled the researcher to understand the need of the community. Record review was useful for determining value, interest, positions and public attitudes. Structured interviews with some open-ended questions ensured clarity of the questions because respondents had a chance to ask and get clarification of the questions. This method increased the response rate of the survey.

1.2.3 Content of the questionnaire

1.2.3.1 Description of the content of the questionnaire

The researcher used a questionnaire with 20 questions to gather information. The questionnaire had six sections (Appendix 2). Also checklist was used during focused group discussion to gather information. The researcher defines a need as something that relates to a particular group, it is a concern of a particular community or group. The questionnaire had six sections, a) Part I - Demographic Information - consisted of 6 questions (i.e., age, sex, education level, occupation, household size and marital status), b) Part II- Community needs (social, and economic needs, solutions) c) Part III- Income and access to social services, d) Part IV)- Strength and weakness of the CBO . Example of the key questions includes; what do you consider to be the most important needs for your community? Rank the mentioned needs in order of importance. Also, the researcher used both open ended and close-ended questions.

1.2.3.2 Description of the response types

The response for the survey included; forced choice with yes and no responses, and ranking of important community needs which involves using rank order scale. Ranking of important needs was done by giving score of 1 to the most important need and 5 for the least important need. Also the researcher used the checklist response. A checklist provides respondents with a series of answers. Respondents were able to choose one or more answers depending on the instructions. Example of checklist response entailing choosing just one or more answers; What is your occupation?- response: a) farming, b) business, c) teacher, d) casual laborer, e) petty trader ?. The advantages of using

checklist were to help respondents remember something which they might have forgotten or overlooked.

1.2.3.3 Description of scales

The researcher used rating scale, which entails the respondent to place the item being rated at some point along a continuum or in any one of an ordered series of categories; nominal rating scale, interval rating scale, ordinal rating and rank order scale for response of different questions depending on the instructions. Checklist were used for question which has one or more answers; What is your occupation?- response: a) farming, b) business, c) teacher, d) casual laborer, e) petty trader ?. The advantages of using checklist were to help respondents remember something which they might have forgotten or overlooked.

1.3 Psychometrics characteristics

1.3.1 Reliability of the instruments used for data collection

Reliability refers to the consistency of the information needed (peoples answers do not keep changing). (Arlene Fink et.al, 1985)

1.3.1.1 Establishment of reliability (stability, equivalence, homogeneity)

Stability- The respondent gave the same response on more than one occasion. The stability was computed by administering a survey to the same group on two different occasions and then correlation of the scores was done from one time to the next.

This type of reliability is also known as test/retest reliability. A survey is considered reliable when the correlation is high. Example of the question with high stability;

Ranking of the major community need, respondents ranked lack of healthy services, poverty and lack of clean drinking water as the three major needs at different occasion.

Equivalence- Reliability was computed by giving two forms of the questionnaire to the same group of people on the same day. The equivalence was determined by comparing the mean score and standard deviations of each form of the survey and by correlating the scores on each form with the scores on the other. The results showed that all forms have almost the same means and standard deviations and highly correlated. Example of the question with high equivalence; Ranking of the major community need, respondents ranked lack of health services as the most important need.

Homogeneity- To test for harmony or, in technical terms homogeneity, the researcher has to divide the survey into two equal parts and collate the scores on one half with the scores on the other half. This procedure is called split-half reliability, and it estimates whether both halves of the survey measure the same characteristics. However, the researcher was not concerned with homogeneity because the interest of the study was on the responses of each item.

1.3.1.2 Adequacy of reliability for survey's uses

The reliability for survey uses was ensured by pilot testing the questionnaire and the focus was on the clarity of the questions and the general format of the survey. Literature on the similar subject was reviewed and the results were correlated.

1.3.1.3 Adequacy of description and methods for establishing reliability

There are several methods which were used by the researcher to establish reliability;

Alternate-form Reliability: Uses differently worded items or responses sets to obtain the same information about a specific topic. In some cases the survey questionnaire had two items in which wording were different but aimed at the same specific variable and the same vocabulary level. Example of such questions was: What is the major source of your income? On the other hand there was a question about the respondent major occupation.

Test-Rest Reliability: Measures the stability of responses over time, typically in the same group of respondents. The survey was administered to a sample at two different and appropriate points in time. The responses for the questions were the same in two occasions.

1.3.2 Validity

Validity refers to the accuracy of the information or its freedom from error.

1.3.2.1 How established (content, face, criterion, construct)

Content validity: Formal expert's review of how good an item or series of items appears. The questionnaire was given to a community development officer who is an expert on need assessment study for verification of its ability to answer the research questions.

Face validity: Casual review of how good an item or group of items appears. The questionnaire was assessed by individuals with no training in the subject under study.

Criterion validity: Measures how well the item or scale correlates with gold standard measures of the same variable. This was used to predict outcomes or events of significance that the item or scale might subsequently be used to predict.

Construct validity: A theoretical measure of how meaningful a survey instrument is; usually established after years of experience by numerous investigators. This method is not easily quantifiable; however, there are a lot of literatures which shows that surveys using questionnaire, review of documents and focus discussion methods have been used by various investigators for several years in conducting need assessment study.

1.3.2.2 Adequacy of validity for survey's uses

Adequacy of validity of survey uses was achieved through pilot testing of the questionnaire which ensured that all topics were included. Consideration of respondent's confidentiality was taken care by giving a code to each individual respondent. The Mkuranga district was informed on the need of this particular study. The survey results can be used by different stakeholders.

1.3.2.3 Quality assurance methods

The survey questionnaires were administered to respondents through face to face interview by 4 trained administrators. For the purpose of ensuring that the survey is administered and interpreted in a uniform way by every one who administers it the researcher put the survey in trial to see that it can be administered and that accurate data can be obtained. Testing of the logistic of the survey as well as the survey form itself was done. The purpose of the trial was to make sure the information collectors are able

to use the survey forms properly, administer, collect and report information using any written directions or special coding forms as requested.

1.3.2.4 Response rate

Response rate is the number of people who respond to the questionnaire.

The response rate for this study was 95%. This was achieved because the questionnaire was pre- tested before the actual survey which helped to improve the response rate.

1.4 Research Methodology

The researcher used cross sectional design which was complimented by both qualitative and quantitative method in conducting Community need assessment. The survey instruments used were face-to-face interviews because most of the female farmers have low literacy level. Focus group discussion with key informants, observation and documentation were used for triangulation purposes. Pre-testing of questionnaire was done to avoid poor wording and long questions. Structured interviews ensured clarity of the questions because respondents had a chance to ask and get clarification of the questions. Observation method was used for the purpose of getting direct information about behavior of individual and groups. Record review was useful for determining value, interest, positions and public attitudes.

1.4.1 Research Design

The study was conducted in Kitomondo village under Mshikamano Community Based Organization (MKIWAKI). The researcher used descriptive/observational design to collect data on need assessment, and suggestion for improvements. The design provided the

researcher with an opportunity to collect data on a wide range of behaviors, to capture a great variety of interactions, and to openly explore the survey topic. The survey involved MKIWAKI leaders and members and key informants (village leaders, teachers, volunteers, extension officer, village traders and project staffs).

1.4.2. Sampling Techniques

The researcher interviewed all 20 MKIWAKI leaders and members. Because the sample was small the researcher decided to interview the whole population. However, purposive sampling was employed in selecting key informants to participate in need assessment survey. Apart from interviewing 20 participating the researcher conducted a focus group discussion with the following key informants; village extension officer, 3 village traders, 2 village leaders, 2 primary school teachers, 3 volunteers (Male youth), a project coordinator, district community development officer, 3 ordinary men and 3 ordinary women. In total 38 respondents were interviewed.

1.4.3 Data collection

Primary data were collected using pre-tested questionnaire (Appendix 4) that was administered to individual participants. The questionnaire was pre-tested twice before the actual survey and modification was done accordingly. Participants had the chance to give their views freely because each individual was interviewed separately. The questionnaire was designed to answer open ended and closed ended questions. Also focus group discussion with key informants was used to gather information.

(i) Interviews

Primary data were collected using structured and unstructured questionnaire. Community members and organizational leaders were interviewed using face to face interview because of low literacy level of the interviewee. In this technique respondents had a chance to ask and get clarification of the questions.

(ii) Focus group discussion

Focus group discussion was done using the checklist prepared by the researcher before the interview. The discussion was conducted with members and leaders of the organization aimed at understanding the most pressing need in the community and the suggested solutions.

(iii) Observation

Observation method was used for the purpose of getting direct information about behavior of individual and groups.

(iv) Documentary sources

Record review was useful for determining value, interest, positions and public attitudes towards the need of the community. Different literature reviewed provided background information for the project.

1.4.3.1 Reasons for choosing in person interview, observation and record review

The researcher selected in person interview because 90% of the intended beneficiaries were illiterate, as they cannot read or write. Observation method was used for the purpose of getting direct information about behavior of individual and groups. Also it enabled the researcher to understand the situation of chicken production and obtain first-

enabled the researcher to understand the situation of chicken production and obtain first-hand knowledge and information about the problem studied. Record review is useful for

determining value, interest, positions and public attitudes. Structured interviews with some open-ended questions ensured clarity of the questions because respondents had a chance to ask and get clarification of the questions. This method increased the response rate of the survey

1.4.4 Data Analysis Methodologies

Survey data were analyzed using SPSS (Statistical Packages for Social Scientist) and excel program. The analysis included Cost benefit analysis, descriptive statistics, which involves calculating for mean, frequencies, standard deviation and variance. SWOT analysis was used to determine the strength, weakness, opportunities and threat of the project

1.5 Kitomondo village Community Profile

According to Census, the year 2002 the Kitomondo village community has a population of 4,000 people with 2,476 women and 1,524 with 810 households.

Census data of 2002 showed that the population growth rate from 1988 to 2002 is 2.4%.

The median household income of the community members is below the poverty of Tsh 250,000 per year (Mwinjaka et al, 2002).

Agriculture is the main occupation for about 99% of all the community members with only 1% who are government employees and petty traders.

Coconut was the main cash crop before 2002. However, the existence of lethal disease has wiped out all the coconut in the area causing people to lose the most important source of income crop. A farmer who was having 1000 coconut trees was left with nothing (MARI, 2004). Coconut was harvested throughout the year and the farmer was assured with sustainable income.

Studies done in Mkuranga district showed that farmer's income from coconut crop was reduced from 1,200,000 to 60,000 Tshs per year for well-off farmers while resource poor farmers income was reduced from 30,000 to nil (Mwinjaka et al., 2002). The income of most coconut farmers no longer depends on coconut farming.

The disease has also resulted into abandoned farms and migration (12%). The negative effect of LD was further extended to income distribution, food security, poverty, and employment (Mwinjaka et Al., 2002).

About 100 % and 98% of all the interviewed farmers own hand hoe and panga respectively. Mechanized agriculture is not very apparent across the study area.

There is one public primary school in the village with over 300 pupils. There is other school in nearby village which serves some of the pupils from Kitomondo village (School register, 2006).

According to Census figures, the mean age of Kitomondo residents was 51 years in 2002. Community members under age 14 made up 43.7% of the population, while those above 65 years and older made up of 2.6% of the population.

The education level of most residents (50%) is STD seven (Census, 2002)

The language spoken by 95% of all community members is Kiswahili.

The people with special skills are few, such as school teachers, carpenters, petty trades, village extension officer and local health workers (Ruth Madulu et al 2005).

Most institutions like secondary schools, police station, hospitals, big shops, hotels, daycare centers and markets are found in Mkuranga district which is 35 kilometers away.

In most households men are the decision makers, women must consult the husband on every aspect.

Land is not a scarce commodity. There is ample land for agriculture which ranges between 2.5 hectares to 3.5 hectares per household (Mwinjaka et al, 2002).

Majority of community members believe in witchcraft, they said that if you build a good house or if your children's are educated with good jobs witches can kill you (Researchers own findings, 2006)

Key informants revealed that although, farming is the major activity, some members face formidable challenges that make daily life a struggle. Some people live in poverty, poor houses, some are homeless, and some are hungry, others are struggling to pay school fees, some are suffering from HIV/AIDS, some are disabled with little or no family.

The concern of the key informants and interviewed members was that if nothing is done to change the situation life will continue to worsen.

In addition to reviewing census and other community based assessment reports conducted in Kitomondo village and other places, the researcher and study team wanted

to know the priority needs of the community by discussing with key informants and selected community members and CBO members.

1.6 Need Assessment Findings

Research question 1: What is the socio-economic characteristic of MKIWAKI members?

1.6.1 Demographic Characteristics

The description of socio-economic characteristic is important because they influence decision making of the household to participate in economic development activities. Decisions such as choice of enterprise, income generation, and marketing are influenced by socio economic characteristic of the household. The average household size was 7 people. Most households are male headed (95%), while female heads the remaining 5%. It is important to understand the household size because of labour constraints.

1.6.1.2 Age and Education

The age and education of the beneficiary among other things influences to a great extent the adoption of innovations. According to the adoption theory, the younger the respondent the higher the adoption rate (Ashimogo et al, 1996). Similarly with higher levels of education there is a greater chance of adoption of innovations. The average age of respondent was 40 years. 57% (16) of the respondents had never attended school while 29% (8) attended primary school education and 14% (4) attended adult

education. This implies that written material cannot be effective in training the respondent on improved technologies.

1.6.1.3 Kitomondo community member's income status

During the discussion with key informants and MKIWAKI members on the income sources, 95% of the interviewed members depend on agriculture for their income and food security. The most important cash crops grown are cashew, cassava, citrus and vegetables. About 41% (8) of the interviewed members in Kitomondo village are getting an income ranging between Tsh 210,000 to Tsh 300,000, while only 23.5% (4) are getting an income above Tsh 310,000. Findings from this data shows that about 76.5% (13) interviewed members are living below the poverty line of less than a dollar per day (Chart 1).

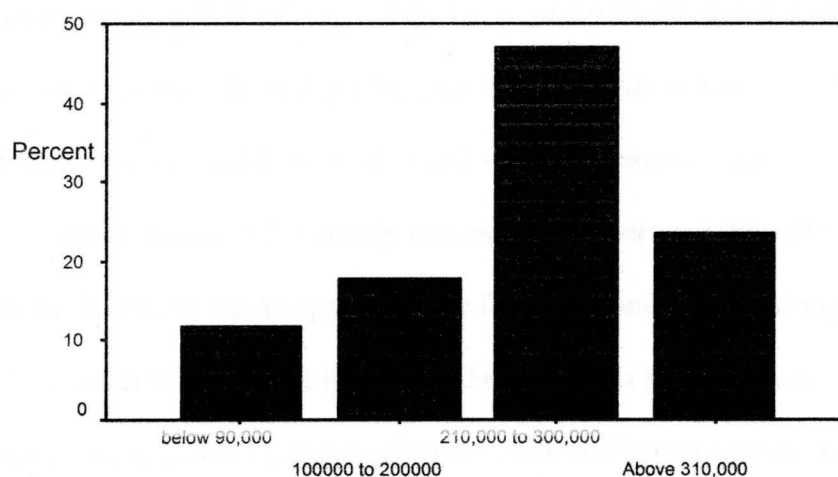


Chart 1: Respondents income category in Tshs

1.6.2 Kitomondo community needs

Research question 2: What are the most important economic and social needs of Kitomondo community members?

The interviewed members mention four important community needs; need for health services, poverty and need the need to increase income, need for water services and need for financial services (Table 1).

1. Poverty and the need to increase income- Members expressed their concern on increasing poverty due to frequent drought which results into failure of crops, also poor farming implements, and lack of money to buy fertilizers resulting into poor yield hence, lack ck of sufficient food in the households and money to buy households needs. Other members showed their concern that young male are migrating to town and even those who are staying in the village does not like to participate in farming, because of low crop prices and lack of market of some crops produced.

Community members in Kitomondo village in the past were used to depend on coconut crop which was harvested throughout the year, but due to the spread of lethal disease the crop has been wiped out and farmers were left with only cashew crop.

The price of cashew is low and it is only harvested once per year. In order to produce more cashews the farmer has to apply sulphur five times and most community members cannot afford and they end up getting one to three bags per year. Community members need to change the situation by engaging themselves in other income generating activities such as growing vegetables and raising chicken. The problem with vegetable

project is drought and cost of fertilizers. Without water vegetables can only be grown during rainy season only.

To practice mixed farming with vegetables and chicken they can be assured of sustainable income earnings. Other community members suggested if they can get a loan they may form a group and grow fruit crops which fetch high price in the market. They said” If we could have other income generating activities we could do, however we don’t have skills and money to start small business”. When asked why the community members are very concerned with poverty:

The response was that, “because of poverty they are not able to send their children to secondary schools, when they finish grade seven for girls they just get married, male youth goes to Dar es Salaam to look for jobs and they cant get employment because of poor skills and low education, their houses are poor thatched with coconut leaves, people who have houses roofed with iron sheet can be counted, sometimes children’s dies of malaria due to lack of money to send them to hospitals, most of the time families just get only one to two meals per day. “We cannot go on like this we need to improve our living standard”.

2. Need for health services – Many community members commented on the need for medical service in the village or at least, improved transportation to allow people to seek the services in outlying area of Mkuranga and Sotele. “Entire area is poor on medical services”. It is true that there are a number of healthy programs in Mkuranga and Sotele where some members go when they are sick; however, not all people can afford to get

where some members go when they are sick; however, not all people can afford to get those services because of the costs involved. Some people opt to be treated by traditional doctors which is cheaper to them.

Key informant and interviewed members have been requesting the government to build a dispensary in Kitomondo village, so as to reduce the cost of transport. During the discussion it was observed that having a health service alone will not be sufficient if community members don't have money to pay for the cost accompanied with those services. They need to have diversified sources of income in order to benefit from health services.

3. Need for clean drinking water- Members in Kitomondo village are concerned with lack of water availability. "We only have shallow wells which dry up during the dry period." Women have to go far to search for water during dry season. To construct a deep well we need to contribute some money which we don't have. If we had an income generating activity we could contribute some money to construct a water well. In discussion it was observed that even if the water well is constructed the problem is to maintain that well through contribution.

Most of the community members cannot afford to contribute due to low income earnings. A water well needs to be maintained in order to continue functioning. That is the reason why community members are concerned with increasing their income in order to

4. Need for affordable education services for low income members- Members

explained that some community members fail to send their children to school because they don't have money to pay for school fees and other contributions for school buildings. "How can we pay money while we don't have food in our houses? People depend on subsistence farming which is not sufficient. Whatever they get it goes to buy food. At the same time there is no secondary school in the village if the student passes the primary exam he has to travel to study in Mkuranga, or Kibaha and most people are not able to pay for all the cost.

Without education no skills and later you cannot get a good job and they end up being subsistence farmers with little income and poverty continues, unless they find another source of income to be able to come out of poverty.

5. Need for financial services- There is no financial institution in the village, neither in the district. All financial institutions are located in Dar es Salaam, which makes life difficult for community members to have savings. In order for a community member to deposit some money he /she had to travel to Dar es Salaam, which is costly.

The availability of financial institution services close to community member's vicinity facilitates savings and credit. During harvesting time they could save some money to be used in future. Some members explained that "you see we have poor houses if there was a financial institution we could be able to borrow some money to buy iron sheets for our houses and our children could get better education.

1.6.2.1 Ranking of community priority needs

Key informants and MKIWAKI organization members were asked to rank the most important needs. Results are presented in Table 1. The need to come out of poverty is the major concern of the community. Majority of the respondents feels that if they could engage themselves in other businesses other than agriculture there was a possibility of alleviating poverty. However, capital, skills and knowledge are lacking.

Table 1: Ranking of priority needs as done by Kitomondo community members (17)

Need	Frequency	Rank in %	What should be done
Poverty- Need for improving the standard of life through increase in business opportunities	6	35.3	A group of women known as MKIWAKI have started to grow organic vegetable but they are facing with a problem of water and fertilizer and they are intending to start a chicken micro enterprise as a source of income.
Need for Health Center	5	29.4	Community members are not able to construct the health centre as it is too expensive, the community leaders will continue to request for government assistance, however they are able to provide labour.
Need for financial institution	3	17.6	Community members suggested that there is a need to be trained in credit and savings so as to start a Ward SACCOS
Need for clean water supply	2	11.8	The community has been promised that deep well is going to be constructed with the help from one religious group in year 2007.
Need for secondary school	1	5.9	This is the problem but in order to be solved community

			need assistance from the Government, there is a plan to build one secondary school in each ward and they community members are ready to contribute labour. Still there are members who cannot afford to pay
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1.6.2.2 Suggestion on increasing community household income

Interviewed key informants and community members gave different suggestion on improving their income. They mentioned several projects such as chicken production, vegetable production, and goat production and expand of their cashew fields. However, most of them were optimistic with agriculture projects because of lack of water for irrigation. About 85% the interviewed key informants believe that chicken project can alleviate poverty. Respondents revealed that they have seen people who are dealing with chicken production are getting a lot of money

1.6.2.3 Effectiveness of chicken integration enterprise to alleviate poverty

In order to understand the perception of community members on the chicken project ability to alleviate poverty the researcher wanted to know the reasons for chicken keeping and if they intend to change the use in the near future. Interviewed members and leaders revealed that with better management, and increase in flock size chicken project can contribute to poverty alleviation. Respondents explained that since most of them depend on agriculture for their livelihood and crops are always affected by drought and low prices it is better to integrate chicken. Reasons for chicken preference are; Chickens

are easily marketed, short time investment pullets can be sold within two months, low inputs, chicken are locally available, the project is not labor intensive even children can help to provide water to chicken, few chicken can be sold and provide big bucks, and chickens can be sold at any time. Manure for fertilization can be readily available from chicken.

Research question 3: What are the most important needs of MKIWAKI leaders and members?

1.6.2.4 MKIWAKI CBO needs assessment

Mshikamano Community Based Organization members and leaders were also asked to indicate their needs. Need for training (35%), need for capital (15%), need for market information. CBO members said that although they have been keeping chicken for so long but they lack knowledge and skills in order to increase production and hence increase income.

Chickens have been attacked by predators and diseases. 35% of the respondents thought that predation were the major problem. Chicken diseases were identified by 30 % of respondents (Table 2) Apart from diseases about 20 % said that lack of knowledge is the major problem. Lack of capital was mentioned by 15% of all respondents.

Respondents mentioned other minor problems such as lack of improved breed of chicken in the village. During the discussion it was observed that predation was contributed by poor chicken housing and lack of monitoring as chicken are left to scavenge throughout the day which results in death of chickens due to snake bites and

other predators. On the aspect of the disease, most farmers said they treat chicken by using local medicine but most of the time it done not work.

Table 2: Chicken production constraints needs and opportunities in Kitomondo

Constraint	Need	Opportunity
Predators- high rate of predation	Training and sensitization of the importance of good chicken house to reduce predation rate	Use of local available material to build good chicken houses with low cost
	Increased access to information, use of visual aids due to high illiteracy	Raise awareness of potential of village chickens to increase household food security and household economies
Chicken diseases	Training on types of chicken diseases and how to control them	Reduce chick losses using local and improved methods
	Introduction of skills on chick management, e.g. regular monitoring of chicks	Reduce incidence of diseases
Lack of knowledge on chicken keeping management	Training farmers of improved chicken management	Combine local and improved knowledge to improve chicken production
Low scale of production due to limiting access to inputs	Introduction of farmers' groups or associations	Empower women and increase gender equity
Lack of capital on building chicken housing	Introduction of improved cockerel	Raise awareness of potential of improved cockerel to improve the chicken production/eggs
	Facilitation of financial services at village level (credit and savings clubs)	
	Organize farmers into groups and form savings and credit schemes.	Create awareness on the importance of savings and credit to members of the community

CHAPTER II

2.0 PROBLEM STATEMENT

Low income for Kitomondo community members in Mkuranga district is of great concern. About 90% of the community members earn an income of less than a dollar per day (Ruth Madulu et.al 2004). 1991/1992 Household Budget Survey, showed that in rural areas, incomes are lower and poverty is more wide spread and deeper, than in urban centres. The livelihood of the people in Kitomondo village is not good.

Need assessment study conducted by the researcher in 2005 showed that about 76.5% of the community members earn an income below Tshs 300,000 per year. The problem of low income is diverse affecting men and women in Kitomondo village, however, pregnant women, lactating mothers and children are more affected because the family cannot afford cost of health services , education and other basic needs (2005, Need assessment survey).

Low income is a result of many and often mutually reinforcing factors including lack of employment opportunities, low crop production, low crop prices, lack of savings and credit, lack of diversification of income sources, drought, poor soil fertility and lack of knowledge on improved agriculture technologies.

If measures are not taken to alleviate income poverty, there is a possibility of increasing economic and social problems such as food insecurity, poor health status, poor clothing, low education level and poor housing. Also, research on the economics of poor households and families showed that declining household income tends to change

women and children's allocation of time between work and leisure but not men's. Poor women can be caught in a vicious cycle of deprivation (Budget Household survey, 1999).

Realizing the problem of low income the Mshikamano women group initiated the production of organic vegetables for the purpose of empowering themselves and other women in terms of income and food security. However, MKIWAKI members are faced with the challenge of prolonged drought, poor soils and crop diseases. In order to overcome the challenges of drought and poor soils, they have decided to integrate chickens in their farming system so as to benefit from getting farm yard manure, meat and income.

Government response: Responding to the problem of low income the Government of Tanzania prepared and adopted development vision 2005 in 1999 and the national Poverty eradication strategy (NPES), which spell out a vision for the society to alleviate poverty and improved social condition. Ministry of Agriculture and food security through the department of research and extension have been developing and disseminating different crop technologies for the purpose of improving food security and farmers income.

Donor initiatives: Tanzania Women Leaders (TAWLAE) supplied few improved chicken to farmers, Export Project for Organic Project (EPOPA) assist in providing market information for organic cashew, and Maendeleo Agricultural Technology Fund

(MATF) is funding a project on organic vegetable production for the Mshikamano women group for the purpose of increasing income.

2.1 Target Community

The project is intending to serve the women in Kitomondo village in Mkuranga district. However, all community members in the area are expected to benefit from the output of the project. Community will participate in attending training on various aspects of chicken micro enterprise and savings and credit scheme, provision of manpower, monitoring and evaluation.

2.2 Stakeholders

The project involves several stakeholders who participated in different activities such as need assessment, problem identification and monitoring and evaluation of project activities. These stakeholders includes; Local government, individuals, Community leaders, Districts officials (Community development officer and Agricultural officer), NGO/CBO-TAWLAE (Tanzania Association of Women Leaders in Agriculture and Environment), SIDO (Small Industry Development Organization) and TanCert (Tanzania Organic Certification Board).

2.3 Project Goal

The overall goal of the project is to improve the standard of living of Kitomondo community through economic empowerment of women leading to income generation and creation of employment opportunities. To achieve the goal the organization strives at

ensuring that women acquire the appropriate knowledge in capacity building, entrepreneurship, business management skills and savings and credit schemes.

2.3.1 Project Objectives

The objectives of the project are:

1. To facilitate the initiation of chicken micro enterprise for 20 Kitomondo women by December 2005
2. To facilitate increase in vegetables productivity (amaranthus) per acre through improvement of soil fertility by July 2006.
3. To enhance the involvement of 20 women in establishment of savings and credit scheme by November 2006

2.4 Host Organization

Mshikamano Women Community Based Organization was initiated in 2005 with 20 women members. The organization is at Kitomondo village in Mkuranga district. A chairperson, secretary and treasurer who have been selected by community members head Mshikamano organization. The purpose of the organization is to improve the standard of living of the Kitomondo community, through empowering women to participate in economic and social activities so as to increase their income and meet their daily needs.

The organization strives to ensure that the livelihood of Kitomondo community is improving for the better. The organization started with organic vegetable production as a source of income, however due to drought and poor soils, the group wants to diversify and engage in chicken micro enterprise and savings and credit scheme. Chicken can be

sold and eaten hence increase income, creation of employment and improve nutritional status of the families. The project is affiliated to FARM AFRICA (Maendeleo Development Trust Fund) which facilitates training on business skills, entrepreneurship and organic vegetable farming. Other stakeholders include SIDO (Small Industry development Program) which together with TAWLAE and TanCert (Tanzania Organic Certification Board) provides training on vegetable processing and quality control. The project stands a better chance of being successful because local community identified the problem and they have shown initiative to change the situation.

CHAPTER III

3.0 LITERATURE REVIEW

The literature review presents the information on the relevance of chicken integration in poverty alleviation. The literature review is divided into three parts, the theoretical review, empirical review where some of the case studies are discussed, and finally the researcher reviewed different policies regarding poverty alleviation projects.

3.1 Theoretical review

Integration of local chicken with different crops is a common practice in African countries. For many households, diversification into livestock reduces risk by providing insurance in the case of crop failure. In these systems, livestock are also a source of liquidity and investment capital in the absence of savings and credit institutions (Breman and de Wit, (1983).

The local chickens are essential for the livelihood of the resource-poor farmers in terms of provision of animal protein, manure and a quick source of income through the sale of live chickens and eggs (Spradbrow, 1997; Gueye, 1998; Kitalyi, 1998). The chickens also serve for some traditional and social functions (Sonaiya, 1990).

Nevertheless, productivity of the local chickens is low, morbidity and losses due to diseases and predation is high, while the cost of medicines and vaccines for disease control is high and supplementary feeds are scarce (Kitalyi, 1998). However, the local chicken survives amidst all these constraints with virtually no or very little input from the owners.

Variations within the free-range local chickens in productivity parameters (Kabatange and Katule, 1989; Minga *et al.*, 1989) justify the need to study the possibility of utilizing them in the efforts to reduce rural poverty through minimized mortalities, increased productivity, and improved marketing. The livelihoods of the rural poor will hence be improved.

Recently, Food and Agricultural Organization's (1998) Special Programme for Food Security (SPFS) viewed the poultry as a crucial element in the struggle for sustained food production and poverty alleviation. Poultry farming has a special favor with the rural people because of its potential to provide supplementary income in the shortest possible time, simplicity in operation and not too heavy demand on resources. From sustainability issues, Bessei (1993) pointed out that rural poultry farming (RPF) is sustainable from both biological and socio-economic point of view. Besides, Deshai (1998) also stated that poultry farming in backyard system does not pollute the environment, but yields an excellent quality of organic manure which helps in sustainable agriculture.

3.1.1 Status of chicken keeping in Tanzania

According to the National sample census of Agriculture in Tanzania mainland 1995, there were 27,065,000 chickens. About 2,778,000 (72%) of total households in the rural areas keep chicken with an average of 10 chickens per household. The commercial chicken production performance is poor (Mwakatundu, 1995). However, figures from rural chicken show that Tanzania is endowed with rich chicken resources. But this potential has not been utilized. Study done by Minga *et al* (1996) revealed that if

constraints are eliminated in chicken industry, with minimal inputs, a surplus of 76.6 million growers and an income of 114.9 billion shillings per year can be achieved.

The basic objectives for keeping family poultry worldwide are both consumption and provision of additional income (Sonaiya, 2000). However, most household keeping poultry have other primary agricultural or non-agricultural activities. Family poultry represent the only livestock that is predominantly owned by women in the male dominated African social setup. Family poultry has various uses including provision of cheap but high quality animal proteins, and small income from the sale of eggs and live birds solve daily household liquidity problems. Family poultry especially chickens are also used in some social obligations such as payment of dowry and in some traditional religious rituals.

Family poultry enable the poor to earn income from poultry that scavenges on communal village lands, and offers one of the few markets that the poor can join (Sonaiya, 2000). Minga and others (1996) estimated that of the 3.7 million agricultural households in Tanzania, 2.5 million keep free-range local chickens.

The local chicken production system in Tanzania as in many other developing countries is the free-range type (Katule 1988; Kabatange and Katule 1989) and local chickens have been kept since time immemorial.

According to Melewas (1989), the local chickens are found almost in every place with human settlement in Tanzania. The fact that chickens are not affected by vector borne diseases such as Trypanosomosis, which have restricted ruminants' distribution and a

short generation interval, favors their wide distribution (Kabatange and Katule, 1989; Melewas, 1989).

Chickens can also survive on kitchen leftovers, eat grass and insects and convert these cheap and easily available materials into high quality proteins. Under this traditional management system, the local chickens are allowed freedom to scavenge around the homesteads in the daytime, to pickup whatever feed is available in the environment, usually ranging from insects, seeds, leftovers to grass (Kabatange and Katule, 1989; Melewas, 1989; Williams, 1990). Breeding under traditional management system is random and non-selective (Horst, 1990). It is usually the most aggressive, strong and dominant cock, which sires most offspring in the neighborhood (Williams, 1990).

In Tanzania, the average household flock size was reported to be 2-20 birds (Melewas, 1989), 23-30 (Minga *et al.*, 1996) and more recently 2-58 (Mwalusanya, 1998). There is lack of proper shelter for the chickens, in some places they share house with people or live in makeshift shelters some are even left to roost on trees (Yongolo, 1996; Mwalusanya, 1998).

3.1.2 Status of chicken keeping in Other Countries

The contribution of family chicken to total chicken production in Africa is more than 70 per cent. Bangladesh and Nigeria are example of countries where complete livestock census has been done within the last 10 years and detailed information on chicken population structure is available. In Bangladesh, family chicken represents more than 90% of total chicken production found in the area, where 74% of the 10 million households keep chicken. Family chicken production contributes to family nutrition and

income. In Bangladesh, chicken keeping contributes about 28% of the total protein supply, taking second place to milk products, which contribute 38% and are mostly imported. However, the problem of Newcastle disease is recognized by (Bell and Mouloudi, 1988).

3.1.3 The importance of rural chicken in national economies of developing countries

Importance of cash economy is rapidly diffusing into even the remotest areas of developing countries. Village chickens have been identified as one of the sources of income and particularly to the households, which do not have access to land or other important resources such as cattle. Village chicken production in Niger has been reported to produce higher income than minimum wage (Kaiser, 1990). In Ghana village chickens are estimated to contribute over 15% of the household cash income (Veluw, 1987). The importance of rural chicken in national economies of developing countries and its role in improving the nutritional status and incomes of many small farmers and landless communities has been recognized by various scholars and rural development agencies in the last two decades (FAO, 1982, 1987; Bemiring, 1988; Creevey, 1991; Mokotjo, 1990). Salum et al (1999) calculated that a household with 10-15 chickens, at a reproduction rate of 3-4 generations per year and clutch size of 10-15 eggs, will generate an income of between 450000 and 800000 Tshs. (US\$563-1000) per year. This is more than the 1997 per capital income of Tanzanians (US\$130). In Dominican Republic, family chicken contributes about 13% of the total income (Kabatange and Katule, 1990).

3.1.4 Chicken keeping as a tool for poverty alleviation and women empowerment

Evidence now exists from different countries that family poultry with adequate institutional support, targeting the poorest rural women and their families can help them to take their first step out of poverty (Jensen and Dolberg, 2003). The emphasis on women is based on the experience that the entire family tends to benefit more from an income belonging to a woman than otherwise (Sen, 1999). It is also based on the fact that poverty is concentrated more among rural women than their men counterparts (Amadu-Njoku, 2001; Lyimo-Macha and Mdoe, 2002). Other essentials to successive use of this concept include economic empowerment of the poor, comparative advantage over the commercial sector, enabling environment, other possibilities out of poverty after poultry, vision to disseminate the concept countrywide and sustainability (Jensen and Dolberg, 2003). In order to benefit the above essentials, the poor must be organized into community groups composing of people of the same social status. In the group they support one another, they become aware of their strengths and rights and are informed of the possibilities to lift themselves and their families out of poverty (Jensen and Dolberg, 2003). Dolberg, (2003) concludes that the rationale for a pro-poor livestock policy embracing family poultry production leads to much greater outreach to poor people than most other livestock programmes that focus mostly on cattle.

The poor people benefits are threefold; they take their maiden step into the development mainstream, they are better nourished and there is an increase to the demand of animal products (Dolberg, 2003).

3.1.5 Village chickens, food security and HIV/AIDS mitigation

In households affected by HIV/AIDS, where labour is in short supply, village chickens provide a source of high quality nutrition and income without requiring much in the way of labour or financial inputs. Eggs in particular, offer a great nutritional bargain: they contain approximately 315 kilojoules and are one of the best quality protein sources known. Eggs also supply an array of vitamins such as A and B12, and they are one of the best food sources of vitamin k, a bone-boosting nutrient. Eggs also provide choline, a B vitamin that plays a role in brain development (Robyn Alders, 2001). Rural chicken is also an important element in diversifying agricultural production and increasing household food security. The advantages of household chicken in improving household food security and increasing household welfare have been reported in other regions. In India, Desai (1996) reported successful rural chicken projects involving women, that led to increased production and empowering of women through provision of training and credit. Similar projects have been reported in Thailand and Honduras (FAO, 1994; Bradley, 1996, as well as Bangladesh (Saleque and Mustafa, 1996).

3.1.6 Women and Non-Governmental Organizations in village chicken production

Literature on African traditional village chicken production systems mentions women and children as the main keepers of chickens. Women dominate chicken production even where intensification has been introduced. This situation is supported by Bradley (1992) in a review of historical relationships between women and chicken development. He explained the closer association of chicken and women because there is livestock kept in

the sphere of the household. In response to this paradigm, chicken keeping has ranked high among small enterprises suggested for improving the economic status of women in rural Africa.

The role of non-governmental organization (NGOs) in village chicken keeping can be discussed in view of the NGOs role in poverty alleviation. Advancement in women in development programs has resulted in the formation of number of NGOs which emphatically support gender-aware anti poverty program (Kabeer, 1995).

There are examples of NGOs in the Asian continent, which have successfully organized farmer groups and associations in poverty alleviation program, such as; Graeme bank of Bangladesh and self employed Women's Association of India. However, the success of NGOs in Africa is yet to be assessed.

The role of traditional livestock industries as providers of employment and income generation to women needs to be mentioned. In most of developing countries of the Asia pacific region, women are responsible for household vegetable and fruit production and chicken keeping (Mumtaz, 1995). A link with urban and suburban fast food vendors can be profitable for rural chicken producers (Cummings, 1992, Roberts, 1992).

3.1.7 Limitation of Rural chicken keeping

Newcastle disease (NCD) is the most important disease recognized in virtually every country. Mortality due to NCD is however variable. While the importance of NCD is recognized, conventional vaccination techniques are expensive to use and do not provide adequate cover and protection for rural birds which have been identified as reservoir source of infection for the commercial flocks (Bell & Mouloudi, 1988).

Pilot and field studies on the use of orally fed NCD vaccines have been carried out in the Gambia, Ethiopia, Mozambique, Tanzania and Zimbabwe. Results in Africa are not really encouraging.

Another key issue for consideration is the validity of chicken production data reported in literature.

Responsible professionals base most of the data found in literature on estimates. Where field surveys have been conducted there are limitations especially where the data depend on the memory recall of farmers who normally do not keep records.

However, study done in two regions of Tanzania (Tabora and Morogoro regions) shows that there are various traditional medicines which have been claimed to treat NCD in village chickens, but the efficacy has not been confirmed in laboratories (Yongolo, 1996). Also experience from Bangladesh shows that chicken mortality has been brought down to an acceptable level due to good chicken management (Saleque and Mustafa, 1996).

Apart from the occurrence of Newcastle disease, in Burkina Faso, Ouandaogo (1990) reported that the 25 million rural chickens produce 15000 tones of meat, out of which 5,000 tones are exported at a value of US\$ 19.5 million, mainly to Cote d'Ivoire.

3.2 Empirical review

3.2.1 Case studies of chicken keeping projects in Tanzania

According to P. Msoffe (2006) the study done in Mwanga in Same districts on the improvement of health and productivity of family poultry towards poverty reduction indicate clearly that family poultry is the woman's dominion. This partly proves the second hypothesis that the benefits accrued from improved productivity and marketing in family poultry could be of great importance in the economic empowerment of women. Looking this in an economic perspective we can derive the following; If someone starts with one cock and three hens, the following can be expected.

One hen is capable of laying up to 30 eggs in one clutch and can lay up to three clutches in a year. If 10 eggs are allowed to hatch at 80% hatchability, then 8 chicks will be available. If we consider the worst case scenario where there is 50% mortality from diseases and predators, then at least 4 chickens will survive to adulthood. If we make similar calculations for the other two hens then there will be 12 chickens altogether multiply this by 3 (three clutches a year) the total in one year is around 40 chickens (including the parents). Based on the calculations above, within the first year the peasant will boast about Tsh 60,000.00 worthy of chickens.

Including the eggs that may be sold or consumed at home, this figure will increase even more. Chickens attain maturity after 6 months, therefore within the first year; some chickens will be part of the breeding unit. With this in mind, it is clear that if women are

encouraged and trained on production and marketing of local chickens, they will be empowered economically and the livelihoods of their households will improve.

A project on improving the health and productivity of rural chickens was conducted in Tanzania by FAO. In this project, the focus was on rural chickens kept by small holders in rural areas in Tanzania. Preliminary results showed that if mortality is minimized, the total yearly income from sale of surplus rural chickens meat and eggs in the country will be up to Tsh. 118.5 billions, and hence an industry of considerable magnitude. This confirms the potential of the rural chickens as a small-scale industry (M.M.A. Mtambo, 1996). FAO supported a number of successful chicken keeping project such as, Oloirien female youths and women group, Jashu youth poultry keeping project- Pemba, poultry keeping project in Maili moja Kibaha-Coast region, small-scale commercial layers production in Morogoro Municipality, and Mbagala poultry farm (FAO,2000).

3.2.2 Characteristics of the village production systems in Africa

The two rural poultry improvement programmes, TCP/RAF/2376 and TCP/ ETH/4455, both targeted women on the basis of earlier reports on the role of women in village chicken production (Rushton, 1996a, 1996b). Results showed that local chickens are essential for the livelihood of the resource-poor farmers in providing animal protein, manure and a quick source of income (Kitalyi, 1998). Similarly, in Gambia, project TCP/RAF/2376 which targeted women was complemented by the UNDP and WID programme. In the United Republic of Tanzania, there were no direct interventions addressing gender issues in village chicken production. However, under the Ministry of

Community Development, Women's Affairs and Children, a non-governmental Women's Development Fund was in place to finance poultry activities and promote the formation of women's groups and associations as a means of increasing gender equity.

In Zimbabwe, there were various NGOs (BTZ) supporting women's small-scale enterprises, including rural poultry production with the same goal of empowering women and increasing gender equity. The Ministry of National Employment Creation and Cooperatives runs training centers such as the National Training Centre for Rural Women, where the government and NGOs run courses on extensive and intensive poultry production. Implementation of the Special Programme for Food Security (SPFS), which includes a household poultry component and has a major bearing on gender equity, is expected to have an impact on addressing gender issues in rural poultry in these countries.

In Kenya a rural poultry improvement program, which included a cockerel exchange component, resulted in progressive improvements over the years. The success achieved was attributed to the flexibility of the project and its incorporation of participatory approach techniques and an intensive training component. Another successful project is 'indigenous chicken production through programmed hatching, Rakai in Uganda where farmers are selling eggs and chicks. (FARM AFRICA, 2004).

In Burundi one hundred girl guides in two villages in Burundi are the proud new owners of 1 000 chicks. The TeleFood Fund provided the chicks, as well as all the material necessary to start fruit and vegetable gardens. The TeleFood project represents a new

lease on life for the villagers. Civil war has devastated the food and agriculture sector of this small Central African country. Most rural families lack even the most basic tools, seeds and fertilizer to put crops into their fields. The project not only aids the girl guides and their families, but also the rest of the local population who benefit from the production of fruit and vegetables and the sale of poultry and eggs at affordable prices. "This project addresses the critical situation brought about by the war, a war that is not yet finished," said villager Frédérique Baranyitondye. "The project is so we can have something to eat, to develop some self-sufficiency (FAO, 1995).

The ownership pattern of village chickens as a resource can be used to understand gender relations in a production system, as it gives insight into the access to resources of the different genders. In the present study, the individual household interviews in the Gambia show that ownership of village chickens is shared among the different gender categories in the household. A different pattern was observed in the United Republic of Tanzania in the Dodoma region where the responses on ownership patterns of village chickens showed that the chickens are predominantly owned by women and children. Little quantitative data on the ownership patterns of village chickens could be obtained from Ethiopia and Zimbabwe during the field visits (Aichi, Kitalyi, 1998).

Division of labour among the different household members is another gender aspect that was studied in the present investigation. The study showed that all gender categories are involved in village chicken management. Construction of shelters was mainly done by men, or by men and children. Group interviews in Ethiopia indicated that management of chickens was fully in the domain of women and children.

3.2.3 Integration of gender concern in village chicken development programmes

Project TCP/RAF/2376, “Assistance to rural women in protecting their chicken flocks from Newcastle disease”, project TCP/ETH/4455, “Training in rural poultry development and the present study focus on women. In the Gambia, the UNDP rural development programme also focuses on women. In the literature, there are a number of rural improvement programmes where the poultry component targeted women (Date-Bah, 1985; Bhatti, 1987; Achiempong, 1992; Aboul-Ella, 1992; Ngongi, 1996).

The 19th World Poultry Congress (Amsterdam, the Netherlands, 1992) and the 20th World Poultry Congress (New Delhi, India, 1996) had special sessions on women in poultry. The major theme of the African Network for Rural Poultry Development (ANRPD) workshop sponsored by FAO in 1995 was empowering women through smallholder rural poultry production.

In the literature review, several assumptions are made about the involvement of women in rural poultry projects: helping women to increase rural poultry production increases women's income and thus empowers them; an increase in food production as a result of increased rural poultry production increases equitable distribution of food in the household; village chickens are easily managed within homesteads, and are therefore appropriate development projects for women; women are more resourceful in managing village chickens, and therefore their involvement in development programmes increases production efficiency.

The findings from the present study show that these assumptions cannot be validated simply by targeting women. Ownership of village chickens and access to the benefits are not exclusively the domain of women. A gender component in the projects is required to identify factors of production and access to benefits accrued for development and technology transfer (Paris, 1994).

As Bradley (1996) noted, by excluding poultry production activities from other agricultural production and economic activities, the benefits for women cannot be fully realized. Explicit integration of women's concerns in the production system allows for a broader perspective in analyzing needs and opportunities.

Finally, as Alders (1997) observed, involvement of women in rural poultry could have either a negative or a positive impact on gender equity. However, involvement of women on the basis of better use of human resources and accrued benefits would likely lead to a positive impact on gender equity.

3.2.4 A conceptual framework for using poultry as a tool in poverty alleviation

Proshika Manobik Unayan Kendra, in short Proshika has been working on development activities for the poor since its establishment in 1976. The goal of Proshika was to promote sustainable development for poverty free, productive, environmentally sound, and democratic and peace in Bangladesh. The target groups are the poor and mostly women. Results from the impact studies revealed that the total income earned per household was taka 455.3 and the average weekly income of beneficiary households has increased by 31 percent after membership.

With the increase in income, the households made substantial progress in savings. The total cumulative savings per beneficiary after membership was Taka 1475 which was made up of Taka 568 from group savings and Taka 908 from own savings. The project has assured empowerment of women in the study areas and increased their participation in household keeping (Proshika Research, 1995).

Studies in Bangladesh (Rahman and Hossain, 1995) show that there is considerable movement of households *in and out* of poverty and this two-way movement resulted in a relatively small decline in the overall poverty with the proportion of extreme poor declining from 31 to 23% and the moderate poor stagnating around 29%. Likewise, an intervention with poultry as described will not protect poor people in Bangladesh against the natural disasters that hit the country from time to time, but it can help them build up their asset base, which in times of catastrophe is an important tool in the households' coping strategies (Del Ninno et al., 2001).

The constraints for implementation of poultry projects at the farmer's level are as follows-, Lack of quality feed supply, Lack of vaccines especially gumboro, Infectious Bursal Disease (IBD) and Marek's disease, Low price of dressed broilers and eggs.

In order to overcome these constraints, Proshika has developed 2–3 feed seller projects in every Thana. Proshika trains group members to undertake these feed seller projects. They receive credit from Proshika and keep concentrate ingredients for the poultry rearers. Feed formulation, quality and the Proshika livestock technical workers ensure good storage conditions.

As vaccines against gumboro, Marek and IBD are not produced locally; Proshika is importing all these vaccines from abroad. To ensure good prices of eggs and broilers by the farmers, Proshika has set up a marketing venture in Dhaka where eggs and broilers are collected from the farmers by group members and sold.

3.2.5 Institutional and organizational support

A multifaceted approach is required for successful development and the adoption of improvement technologies for village chicken production systems in Africa. Where development assistance to rural poultry is accompanied by strong institutional support, the long-term effects of the assistance are promising. The Bangladesh rural improvement programme “Integration model for the semi-scavenging systems” is cited as a successful programme on rural poultry improvement (Saleque and Mustafa, 1996).

The Bangladesh model targeted exclusively landless women and involved these women in the chain of activities of vaccination, hatchery operation, chick rearing and feed selling, as well as in the production of hatching and table eggs for the market. Credit services and marketing aspects also formed part of the model. The success of the Bangladesh model has created interest among those involved in rural development in other developing countries.

In Ethiopia, FAO project TCP/ET/4555 included a component on training for women and group formation for institutional and organizational support. Success in these activities, especially in group formation, was poor because of the bad experience of farmer groups and associations formed under the former centrally planned state (Swan, 1996). A successful women's group formation programme in Ethiopia was reported by Peacock *et al.* (1994) under a project on goats and women supported by Farm Africa. The lessons from this project that could be used in supporting similar activities in village chicken production systems are: to use the local community to identify the project beneficiaries; to manage the credit system at village level and use payment-in-kind as a means of loan repayment; to use women's veterinary auxiliaries in poultry health programmes; to use simple extension messages; and to emphasize the importance of participatory skills in developing a farmer-researcher-extension collaborative working mode.

In the United Republic of Tanzania, rural groups and organizations have been used as the main development strategy for alleviation of poverty and the creation of equitable growth in rural areas. Formal rural cooperatives in the United Republic of Tanzania were introduced during the 1920s. There have been various changes in management of the cooperatives as a result of major government policy changes.

Recently, the power of cooperative members has increased and there has been more concern about involving women. In addition, both women's and integrated cooperatives and groups have formed (Msongazila, 1994). According to Meghji (1985), the following lessons can be learned from the United Republic of Tanzania's experiences, particularly in women's involvement in cooperatives and credit schemes:

- any approach taken to provide institutional and organizational support in rural development should aim at breaking the dependency complex;
- too much interference or bureaucracy has a negative impact on cooperatives or organizations;
- Gender-biased constraints in cooperative or group formation should be addressed in the process.

Zimbabwe is another country with a long tradition of rural institutional and organizational services. The first rural savings club in Zimbabwe dates back to 1963, although the clubs started as credit unions (Chimedza, 1985). Backyard poultry production under semi-intensive production systems has been undertaken through the support of savings clubs.

Identification of areas in the village chicken production system that require the most institutional and organizational support would enhance the adoption of methodologies used in other

production systems. Input supply and distribution and product utilization are probably the key areas because of the small scale of production involved at the household flock level.

Supply and distribution of veterinary drugs and vaccines is currently the main area that requires institutional and organizational support in village chicken production systems. The poor infrastructure and the small economies of scale do not attract private investment. Supply of veterinary drugs and vaccines requires support because most of the inputs, particularly the vaccines, come in doses higher than the size of the local flocks. Group formation and credit services are therefore required in this area. Local needs, aspirations and skills and cultural, socio-economic and policy issues should be critically analyzed in introducing such support services. Experiences from the goats and women project in Ethiopia (Peacock *et al.*, 1994) and those from the People's Participation Programme in Rushinga, Zimbabwe (FAO, 1993) could be tested in the village chicken production system.

Product utilization and marketing is the other key area requiring support. Egg and chicken consumption levels in rural households are low. Results from project TCP/RAF/2376 (Rushton, 1996b) show that average household consumption levels were one chicken and eight eggs per month in Ethiopia.

In Tanzanian towns, the consumption of charcoal-grilled meat (*Nyama choma*), predominantly chicken and goat meat, is increasingly popular. In rural areas in Asia, significant improvements in the production of value-added products, such as chicken meat loaves have been observed. Gizzard pickles, pickled meat, pickled eggs and chicken nuggets are reported (Sherikar, 1996). Nevertheless, there is still a need, especially in Africa, for vigorous promotion of the consumption of chicken meat, eggs and chicken-derived products among rural communities.

Marketing is another aspect that requires institutional and organizational support. The marketing intervention introduced in the WID project in the Gambia, where specific field days were arranged for women to sell the chickens was welcomed by the farmers. Institutional support offered in marketing could be used to create employment for youths in rural areas.

3.3 Policy review

Tanzania and other multilateral organizations are implementing poverty alleviating strategies. This study discusses few initiatives, which demonstrates that this project is in line with other development strategies.

The livestock policy (1997) aims at promoting the livestock industry so as to increase production and productivity to ensure that the nation achieves a per capita consumption of meat of 4.83 kgs per annum by the year 2005 (increase by 39%). This will enhance farmers' income, production of hides and exports of both live animals and other products.

Strategies to improve the livestock industry:

- Private sector is encouraged to participate in promotion of community-based management of livestock infrastructure; grazing lands, dips and range development.
- Strengthening extension services and research by both government and private sector participation.
- Encourage the pastoral communities to form savings and credit institutions such as saving, and credit societies, trust funds and rural banks and work with pastoral communities and develop appropriate credit systems.
- Establishment of livestock associations in the pastoral areas to enhance their bargaining and purchasing power in the supply of inputs, organizing the market of products and dissemination of new technology.
- Private sector will be encouraged to participate in processing and export of livestock products and livestock surpluses.

- Provision of marketing information by the government and on potential import markets.

Women Development policy

The Women Development Policy (1996) states clearly the responsibilities of different concerned parties in speeding up community development in the country. The major objective of the community development policy is to enable Tanzanians as individuals or in their families and / or groups or Associations to contribute more to the government objectives of self-reliance and therefore bring about development at all levels and finally have a remarkable national growth. Women Development Policy addresses ways and means of reducing women's workloads, improving their health and increasing productivity.

National environmental policy

The National Environmental Policy (2002) states that empowerment of women is a critical factor in the eradication of poverty. Emphasis should be focused on antipoverty programmes such as employment schemes and credit facilities for women, among other measures. The policy recognize that the productive potential of women is impaired by the disproportionate burden they bear in the management of household consumption and production, on account of gender division of labor, emphasis shall be placed on addressing the structural causes of poverty and reducing gender-based inequality within the sector.

National Strategy For Growth and Reduction of Poverty (NSFGRP)

National Strategy for Growth and Reduction for Poverty (2000) aims at fighting poverty through mainstreaming of poverty into the budget instruments. The government is committed to give specific attention to vulnerable groups through its own programs and by enlisting the involvement of its development partners. Local communities are expected to play a major role in identifying the needs of vulnerable groups.

Tanzania Development Vision 2025

The Tanzania development vision 2025 (1995) is envisioned that Tanzanians will have graduated from a least developed country to a middle-income country by the year 2025 with a high level of human development. Solid foundation for a competitive and dynamic economy with high productivity will have been laid.

The Tanzania vision 2025 aims at achieving a high quality livelihood for its people, ideally, a nation's development should be people centered, based on sustainable and shared growth and be free from abject poverty.

For Tanzanians, this development means creation of wealth and its distribution in society must be equitable and free from inequalities and all forms of social and political relations which inhibit empowerment and effective democratic and participations of social groups of men and women), boys, girls, the beyond and old and the able-bodied and disabled persons) in society. In particular, by the year 2025,

racial and gender imbalances will have been redressed such that economic activities will not be identifiable by gender or race.

Millennium development goal

Tanzania has agreed to implementing the millennium development goal which necessitates the need to eradicate extreme poverty and hunger by halve between 1990 and 2015, the proportion of people whose income is less than a dollar a day; also to halve between 1990 and 2015, and the proportion of people who suffer from hunger. This complies with the vision 2025 and Poverty Reduction Strategy.

FAO (Food Agriculture Organization)

FAO is dedicated to promoting agriculture, nutrition, forestry, fisheries and rural development, and to facilitating achievement of the World Food Summit goal of eradicating hunger (FAO, 1995, 1999). The Organization is a world centre of food and agricultural information and knowledge and a forum for policy dialogue and forging agreements among nations. FAO in Tanzania focuses on Food Security, Policy Assistance, Natural Resources Management and Institutional Capacity Building. The Country Programme essentially comprises the Regular and Field Programme as well as Emergency Operations towards the overall development of the agricultural sector. Its work in these areas, on standard setting and on provision of global public goods, both underpins and complements the activities that it directly targets to helping achieve the Millennium Development Goals.

FAO recognizes the important contribution that chicken can make to poverty alleviation and has programs that focus on small-scale, low-input, family based chicken production.

These programmes target the more vulnerable households especially those affected by natural disasters, HIV Aids and conflict.

International Network for Family Poultry Development (INFPD)

The international Network for Family Poultry Development (INFPD) started as the African Network for Rural Poultry Development (ANRPD), and was established during and was established during an international workshop on rural poultry development held in November 1989 in Ile-Ife, Nigeria. The name was changed to INFPD at a meeting that took place in M'Bour, Senegal, in December 1997 (Sonaiya, 2000). INFPD is mainly an information exchange network. One of its objectives is to encourage higher standards of research and development that can sustainably increase the productivity of the chicken sub sector. This is achieved through providing advice and collecting data and detailed information about FP production systems. Information is disseminated through a trilingual (English, French and Spanish) newsletter, produced twice yearly.

United Nations Development Programme in Tanzania

UNDP is the UN's global development network, advocating for change and connecting countries to knowledge, experience and resources to help people build a better life. In Tanzania, UNDP support national poverty reduction efforts with strategic advice, capacity building, aid coordination and funding. UNDP's work in Tanzania focuses on poverty reduction strategies, democratic governance, and HIV/AIDS.

The World Bank's main focus in Tanzania

The main focus of World Bank has been to support government's efforts in economic and social development. To that end, the World Bank lends to the Government, monitors the implementation of the funded projects ranging from agriculture, education, privatization, infrastructural projects, etc; and advises on macroeconomic and structural adjustment aspects. Recent attention has been on poverty reduction initiatives utilizing the HIPC (Highly Indebted Poor Countries) relief facilities. The World Bank ensures that the social sector receives an increased share of public resources. In general the World Bank stresses a good management of the economy for an increased welfare of the people.

Policy Limitation

Although there are good policies for poverty alleviation, but majority of the poor in rural areas are not aware of these policies. It is difficult for the poor to benefit from government and donor initiatives if they are not aware of its existence. On the other hand although there are policies, which favour women but in implementation it is difficult since men are the implementers of those policies. Men are considered to be the head of the households and they take all the advantages while the main producer who is the woman is left behind. There is a need for the government, donors and other development practitioner to translate these policies in a simple way and encourage the participation of both men and women in poverty alleviation activities.

CHAPTER IV

4.0 IMPLEMENTATION OF CHICKEN KEEPING FOR ORGANIC VEGETABLE PROJECT

Implementation of the project on integration of chicken keeping in organic vegetable project started with the itemization of what will be accomplished by the project and the expected outputs and products (Table 3). Each project objective indicators have been identified.

Table 3: Itemization of project products and outputs

Project objectives	Indicators	Output indicator	Impact indicator
<u>Objective 1</u> To facilitate the initiation of chicken micro-enterprise project for 20 Kitomondo women by February, 2006.	1. Number of available trainers in chicken micro-enterprise. 2. The amount of money and other resources needed. 3. Number of trainings and training materials.	1. No of trainings conducted. 2. Number of women trained in chicken keeping husbandry. 3. Number of women practicing chicken keeping.	1. Reduced number of community members with low income earnings. 2. Reduced no of chicken death due to diseases. 3. Improved knowledge in chicken keeping.
<u>Objective 2</u> To increase the productivity of amaranthus from 3,000 kilograms to 7,000 kilograms per acre through improvement of soil fertility by June 2006.	1. Number of available trainers in chicken manure application. 2. The amount of money and other resources.	1. Number of women trained in application of chicken manure. 2. Number of women trained in vegetable production 3. Number of women applying chicken manure	1. Improved soil fertility. 2. Increased amaranthus productivity 3. Increased household income.

Objective 3 To train 20 Kitomondo women on savings and credit services by November, 2006.	1. Number of available trainers in savings and credit. 2. The amount of money and other resources.	1. Number of women trained in savings and credit. 2. Number of women joined the savings and credit scheme.	1. Increase in savings for women. 2. Increase number of women requesting for credit. 3. Change in women knowledge and practice.
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4.1 Project Planning

The project planning involves scheduling activities in sequence. Activities were planned starting from September, 2006 to February, 2007. All stakeholders were involved in producing inputs for project planning. Participatory planning was important to ensure that the activities are conducted according to the schedule. Planning in advance allows participants to perform other household's activities without being interrupted. Trainee's and trainers attendance is improved by proper planning.

Planned activities include; conducting awareness meeting, training of members, monitoring and evaluation and actual implementation of chicken project by trained members. The required resources and planned delivery timeline are presented, (Appendix 4).

4.2.1 Staffing Pattern

During project planning staffing plan was prepared. Staffs were allocated to perform different activities according to their knowledge and responsibility in the organization. Training needs were identified together with all stakeholders (Appendix 5). However, the Community technical advisor was responsible to oversee and facilitate the training programs and monitoring of all the project activities.

4.2.2 Planned project budget

The planned total budget for the project was Tsh 2,965, 000, (Table 4). All resources and inputs necessary to implement the project were itemized accordingly. Costing of items and contribution by different stakeholders was done in collaboration with project coordinator, CBO leaders and members (Appendix 6). However, after discussion with trained women it was agreed that instead of the trainees to contribute money for the purpose of purchasing chickens they can contribute chickens instead. The procurement of chicken feeds was not done in a lump sum but it was done monthly. FARM AFRICA (donor) has paid the training fees and facilitation allowances to all members. Monitoring and Evaluation exercise was sponsored by FARM AFRICA and MAFSC. There was a deficit in funds for purchasing feed and water troughs, trainees are still using local material at their home, but the strategy is for each trainee to sell 2 chickens and buy the equipments.

Table 4: Budget summary for chicken integration project

Budget Category	Unit cost	No of units	Amount in Tshs.
1. Cost for chicken/cockerel	4,000	100 number of	400,000
Locally made chicken feeds	200	chicken	400,000
Organic vaccines/medicines	3,000	2,000 kg of feed	60,000
Drinking/feeding troughs	3000	20 water troughs	120,000
		20 feed troughs	
Sub Total			980,000
2. Travel and Per diem for training/ monitoring/evaluation impact	1300 per liters	300 liters	390,000
Transport costs/fuel	10,000	48 days	480,000
Day out allowance	40,000	12 days	480,000
Per diems			
Sub Total			1,350,000
3. Other direct cost			
paper rims	5	6,000	30,000
binders	7	3,000	21,000
pens	25	200	5,000
note books	30	700	21,000
ledger	4	2500	10,000
marker pen	3	5,000	15,000
Flip chart	4	7,000	28,000
telephone	5	5,000	25,000
printing/reproduction	lump sum	30,000	30,000
Sub Total			185,000
4. Consultants (training specialist)	9 days	50,000	450,000
Sub total			450,000
Total budget			2,965,000

4.2 Project Actual Implementation

Project implementation was done according to the developed schedule (Appendix 4). The actual implementation periods 18 months, however, MKIWAKI community based organization will continue with the activities after the completion of CED goals. (Appendix 8 Gantt chart)

Among the major activities performed were as follows;

Objective 1: To facilitate the initiation of chicken micro-enterprise project for 20 Kitomondo women by February, 2006.

Activities to achieve objective 1:

- Meeting with community/CBO leaders and members
- Preparation of MKIWAKI constitution
- Identification of required staff to implement the project
- Training community members on commercial chicken keeping and marketing
- Mobilization of community members to raise funds to buy local chicken, improved cockerel, feed stuffs and medicines.
- Procurement of chicken/improved cockerel
- Monitoring and evaluation of project activities

Resources required achieving objective 1: - Place to conduct trainings, transport, stationeries (Marker pen, flip chart, recording books and pen/pencil), chickens, medicines, funds and trainers.

Achievements of objective 1: Twenty Kitomondo women have been facilitated to establish chicken micro enterprise.

Before the initiation of the project, the Community technical advisor met with different stakeholders including, MKIWAKI members and leaders, village leaders, project coordinator, SIDO and TAWLAE partner as planned. This meeting was used to create awareness and planning of project activities.

- Constitutional preparation and formal registration of the group: The technical advisor, village leaders and the Mshikamano women were involved in preparing the constitution and later the formal registration was done. The women group is called Mshikamano Women Community Based organization (MKIWAKI). The process of registration took a long time due to bureaucracy caused by registration officers. The application was forwarded in January 2006, and the certificate was given in June 2006, however, there was a problem with the certificate because wrong names were added and they indicated that the CBO is from Mufindi in Iringa region.

- Capacity building on organizational skills leadership and business skill management: Twenty women were trained in organizational management and business skills. Stakeholder from TAWLAE trained the women group on leadership skills and later the group selected their leaders according to knowledge acquired. The chairperson, secretary

and treasurer were selected and three members of the executive committee. In the past there was a mixed up of duties between these leaders but after the training each one is performing her duties according to the stipulated guidelines in the constitution.

Facilitator from SIDO trained farmers on business skills and entrepreneurship as planned, four sessions were allocated for this training, each session took about 2 hours. On the aspect of marketing participants were exposed to different marketing skills and marketing information. Before training women didn't know how to keep records on income and expenditure also even if one member borrows some money from the group there were no records.

- Capacity building on chicken production: The technical adviser facilitated the training on chicken production as planned. The village extension officer was the one who trained the women group on improved chicken management system including, feed supplement, housing, and disease control. This activity was allocated ten sessions of 2 hours each. However, trained members are free to seek advice from the extension officer when they encounter any problem during project implementation. After training each member was supposed to contribute Tsh 20,000 for the purpose of purchasing 4 local hen and 1 improved cockerel. But during implementation it was agreed that since most of the women keep few chickens it was agreed to start with what members have and to purchase few cockerel which can be used by all members.

The trained members decided to build one big chicken house which can accommodate 300 hundred chickens. Each member contributed 3 chickens, and there is a daily routine of providing feed supplement. Apart from that each member still keeps chickens in their

household. Although twenty women have been trained on the importance of proper chicken house most of them still keep chickens in their main house. This is caused by lack of capital to build a strong chicken house which will not allow predators and thieves to have easy access.

During discussion with trained women it was decided that they should request a loan from the Tsh. I billion allocated by the government to each region.

- **Monitoring and evaluation:** Monitoring and evaluation indicators were developed with stakeholders and activities were monitored regularly to ensure the project goal and objectives are achieved as planned. Detailed monitoring and evaluation plan and achievements will be explained in detail in the next chapter.

Objective 2: To increase the productivity of amaranthus from 3,000 kilograms to 7,000 kilograms per acre through improvement of soil fertility by June 2006.

Activities to achieve objective 2:

- Meeting with participating women, project coordinator, CBO leaders and the trainer and review the plan
- Training twenty members on the importance of chicken manure in soil fertility and increase in vegetable productivity.
- Setting of demonstration plot where training can be done.
- Vegetable processing
- Monitoring and evaluation of project activities

Resources required in achieving objective 2: - Place to conduct trainings, land, transport, stationeries (Marker pen, flip chart, recording books and pen/pencil), chickens manure, vegetable seeds, funds and trainers.

Achievements of objective 2: Amaranthus vegetable productivity has increased from 3,000 kilograms to 8,000 kilograms per acre.

Meetings were conducted involving all stakeholders; preparation of training material was done as planned.

Capacity building on the proper use of chicken manure to improve soil: Training twenty members on the application of chicken manure to improve soil fertility was done as scheduled. The Technical advisor was involved in training the women on the proper use of chicken manure because she has a background in vegetable production. However, the village extension officer also took part in training and he is the one who is going to continue assisting women if they encounter problem in vegetable production. The training sessions were done in the afternoon to allow all 20 women to participate in training after performing household and other farm activities.

Setting of demonstration plots was done to allow trainees to participate in learning by doing. Demonstration plots serve the basis for training because most members who could not read or write can learn through practicing. Four training sessions were planned for this activity which was used efficiently. Members were also trained in processing of vegetables to add value.

Trained members had achieved the production of 8,000 kilograms per acre, which ensures increase in income through vegetable sell.

Monitoring and evaluation: Monitoring and evaluation of activities, resources was done as scheduled, however, detailed plan and implementation is presented in next chapter.

Objective 3: To train 20 Kitomondo women on savings and credit services by November, 2006

Activities to achieve objective 3:

- Meeting to create awareness on the importance of savings and credit.
- Training twenty members on the savings and credit.
- Involvement of trained women in local saving and credit.
- Registering of members in ward SACCOS
- Monitoring and evaluation of savings and credit services

Resources required in achieving objective 3: - Place to conduct trainings, transport, stationeries (Marker pen, flip chart, recording books and ledger, pen/pencil), funds and trainers.

Achievements of objective 3: Twenty women were trained in savings and credit as planned.

Fifteen out of 20 trained members have registered in Ward SACCOS which has been formed recently.

Creation of awareness and capacity building on savings and credit scheme: Creation of awareness on the importance of savings and credit was done to twenty participating women. Trainings were facilitated by a facilitator from SIDO and also a cooperative officer from the district was involved in training following the government initiative to ensure every ward in

the country establishes saving and credit scheme in order to be eligible to receive loan without the need to have collateral. Four training sessions were conducted as scheduled. Trained members initiated local savings and credit scheme, each member was contributing Tsh 2000 per month. The saved money can be borrowed by members with ten percent interest. However, it is important for all trained members and other community members to register themselves to ward SACCOS, because the higher the number of members in SACCOS the higher the possibility of being satisfied with the services rendered.

Monitoring and evaluation: Monitoring and evaluation of the activities and objectives was done and results are presented in next chapter.

The project objectives have been achieved as planned. Although, 18 month is not long enough to get much changes but initial results showed that if trained members continue practicing what they have been trained and train other community members much can be achieved (Table 5). Even the goal of empowering Kitomondo women community members economically have been achieved by 80%. Currently trained women are getting more income from increased vegetable sell and chickens, hence, members are empowered economically.

Table 5: Project Implementation summary

Project Description	Planned Activities	Resources required	Responsible	Time frame
Project goal: To improve the standard of living of Kitomondo household community in Mkuranga districts.	<ul style="list-style-type: none"> - Facilitate the involvement of all project stakeholders in the whole process of project design planning and implementation. - Project monitoring and evaluation 	<ul style="list-style-type: none"> -Place to conduct meetings - Transport - Flip charts - Marker pen -Recording books -Pen/pencils - Funds - Chickens - vegetable seeds 	Community development advisor, CBO leaders and mothers, village leaders, project coordinator, trainers, extension officer, researchers and other stakeholder	Jan 2006-Feb 2007
<u>Objective 1</u> To facilitate the initiation of chicken micro-enterprise project for 20 Kitomondo women by February, 2006.	<ul style="list-style-type: none"> - Awareness meeting - Capacity building on chicken husbandry, entrepreneurship skills and business management. - Organize and conduct Monitoring & Evaluation 	<ul style="list-style-type: none"> - Place to conduct trainings - Transport - Marker pen -Recording books -Pen/pencils - funds 	<ul style="list-style-type: none"> Community development adviser - Project leaders/ - Community members -Village extension officer - Business development 	Jan 2006-March 2006

			officer (SIDO)	Jan, 2006- Feb, 2007
			All stake holders of the project	
<u>Objective 2</u> To increase the productivity of amaranthus from 3,000 kilograms to 7,000 kilograms per acre through improvement of soil fertility by June 2006.	-Capacity building on:-the proper use of chicken manure. - Organize M&E	- Place to conduct trainings - Record keeping books	-Project leaders - SIDO officer - CBO members -Community development officer	April, 2006- June, 2006 April, 2006- February, 2007
<u>Objective 3</u> To train 20 Kitomondo women on savings and credit services by November, 2006.	Organize and facilitate training on savings and credit scheme and establishment of savings and credit facilities and record keeping.	- Place to conduct trainings - Record keeping books	-SIDO credit officer, -Project leaders, -Village leaders, - CBO members -Community development advisor	September, 2006- November, 2006

CHAPTER V

5.0 MONITORING, EVALUATION AND SUSTAINABILITY OF CHICKEN KEEPING FOR ORGANIC VEGETABLE PROJECT

5.1 Introduction

Monitoring can be defined as the regular collection of information to assess progress in the implementation of the work plan; and evaluation as the periodic collection of information to assess progress in changing the practices and well being of target populations.

The most important difference between “monitoring” and “evaluation” is in their respective focus: monitoring looks at operational implementation, while evaluation looks at population effects. In most cases monitoring data are obtained by compiling routine project record (Gilles Bergeron et al, 2006).

Outputs, such as the number of persons trained, can be obtained from attendance lists to a training session. On the other hand data associated with outcomes and impacts require beneficiary or population-level measurements. For example, the number of trained members who adopt improved chicken keeping technologies cannot be derived from routine project records.

A survey is necessary to collect this outcome indicator. Most often, monitoring uses data from project records; evaluation uses survey data. A third key difference is in the frequency of data collection and reporting. Monitoring indicators are tracked regularly and frequently processes and outputs are compiled on an annual basis.

5.2 Monitoring

Monitoring of project activities was done to assess whether the project activities were conducted as planned and also to assess if the available human resources and other non-human resources were used efficiently during project implementation. Monitoring provides manager with information needed to analyze current situation, identify problems and find solutions, discover trends and patterns, keep project activities on schedule, measure progress towards objectives and formulate/revise future goals and objectives and finally make decisions about human, financial, and material resources (Table 6).

Monitoring is a continuous process; the first level of monitoring is done by project staff. Supervisors are responsible for monitoring the staff and tasks under them, and the project advisor is responsible for monitoring all aspects of the project. The second level of monitoring is done by the donor. Through field visits and routine reports from the supervisors, the donor monitors progress and measures performance.

Monitoring was done through, field visits, review of service delivery and commodity records, management information system (CEDPA, pp 57-59).

Information which was planned to be collected includes; the use of time, people, money, and other material resources, results, staff supervision, budget/expenditure , commodities and service delivery and training needs.

In order to ensure timely delivery of services there was a need to establish a management information system which was designed to collect information on project activities, to plan, monitor, and evaluate the operations and performance of the project.

Monitoring of project activities was done monthly where the team members would meet and discuss on the progress of the project.

Monitoring questions: The technical advisor wanted to answer the following monitoring questions:

- Are the planned meetings conducted as planned and at the right time? Are the set of resources (Staff, resource persons, funds, project beneficiaries, chickens) brought together to accomplish project activities? ,Are the set of activities (trainings on chicken keeping, feed supplement, proper shelter, importance of improved cockerel and marketing opportunities) by which resources are used in pursuit of expected results?, Which resources have you acquired that you didn't have before? (Funds, equipments), is there any need of retraining and on which aspect? Is the group constitution prepared and registration done? (Table 6a &6b)

The scores for each of the responses will be:

1. = poor
2. = medium
3. = good
4. = very good

Apart from preparing the monitoring information system the technical advisor prepared the monitoring plan for each objective activity indicating monitoring indicators, source of information, tools used to gather information, time frame and the responsible personnel (Appendix 7)

Table 6a: Information for Monitoring Project Operations

Category of information	What to monitor	What records to keep	Who collects data	Who uses data	How to use information	What decision can be made
1. Work plan activities	- Timing of activities - Availability of personnel and resources	Monthly/quarterly work plans -work schedules	-Project advisor - supervisors	-Project coordinator - Project advisor - Donor	- ensure staff and other resources are available	-Reschedule activities and deployment of resources as needed
2. Cost and expenditure	-budgeted amounts and expenditure - Balance	- Ledger of expenditure - Receipts - Bank transaction - Reports to donor	- financial officer	- -Project coordinator - Project advisor - Donor - Auditor	- Ensure funds are available - ensure compliance with funding regulations	-authorize expenditure - determine need for other funding Source.
3. Staff and supervision	- Knowledge & skills of staff, educational level and job performance	- performance review - job description - feedback from training attended	- supervisors - project advisor - trainers	- supervisors - project advisor - project coordinator	- advice staff on career	-training needs - placement
4. Commodities	-stocks - Procurement regulations	- stock register - field worker reports	- logistic officer	- Project advisor - project coordinator - donor	-ensure availability of commodities and distribution process	- quantity to order - when to order
5. Results	- No and type of services provided - characteristic of person served	- attendance register - fieldworker reports	- CBO leaders - Project advisor - Field supervisors	- field supervisor - project coordinator - donor - Project advisor	- ensure objectives are realistic - assess quality and appropriateness of services provided	- revise objectives - retrain staff - revise project strategy and approach

Table 6b: Management of project activities

Project implementation (score)	Poor (1)	Medium (2)	Good (3)	Very Good (4)
How are group activities planned and carried out?	No planning of activities. Implementation is action oriented without apparent objectives	Some activities are planned while others are not. Implementation is however not really related to plan	planning for all activities is done but implementation is too rigid.	All activities are planned. Implementation is according to agreed plans but flexible for adjustment when required
How are the resources brought together to accomplish the objectives	Resources are not used efficiently to accomplish the objectives.	Part of the resources are used to accomplish the project's objectives	Moderate use of resources to accomplish the project's objectives	Resources are used efficiently to accomplish the project's objectives.
Are activities assessed and results recorded or documented	No assessment and no recording of activities is done.	Assessment only when something has gone wrong but no records are kept.	Periodic assessment is done and recording is partially done.	Assessment is regularly done and recording of the group activities is always done.
To what extent is external assistance needed from the project or other agencies?	Management completely dependent on outsiders for all decision making and all activities undertaken by the group.	Regular assistance still needed in major management decisions	External assistance still needed for guidance upon special request.	Management is independent of outside influence and has the capacity to act creatively according to circumstances .

5.2.1 Research Methodology

The technical advisor used different methods to conduct monitoring exercise. The methods used were focus group discussion, observation, review of participant's record books, attendance register and quarterly reports.

(i) Focus group discussion

Focus group discussion was done using the checklist prepared by the researcher before the interview. The discussion was conducted with members and leaders of the organization aimed at understanding the progress of the activities aimed at achieving the goal of empowering women economically.

(ii) Observation

The technical advisor applied participatory observation by attending group activities to see how actively all members participated and observe decision making process, for example participation of group members in training and practice. Observation method was used for the purpose of getting direct information about behavior of individual and groups. Also it enabled the researcher to understand the strength and weakness of the training offered.

(iii) Review of farmer record books and quarterly report

Record review was useful for determining the understanding of trainees, content and usefulness of the material offered during training and trainee's ability to understand the contents. Attendance register helps monitoring team to monitor number of participant's

attending each training session, while Quarterly reports assist all stakeholders and donors to understand what decision to be made in order to achieve the desired goal.

5.2.1.1 Reasons for choosing focus group discussion, observation and record review

The researcher and monitoring team used different tools in monitoring project activities. For triangulation purpose it was important to use more than one tool which ensures reliability of the information collected. Direct observation facilitated the monitoring team to understand how the activities such as trainings were conducted. Record review and quarterly reports assisted in reviewing the project regularly, to compare approved work plans with actual performance, and to take corrective action as required. Focus group discussion facilitated the monitoring team to have a clear picture of the group perception on how the activities were implemented.

5.2.2 Data analysis

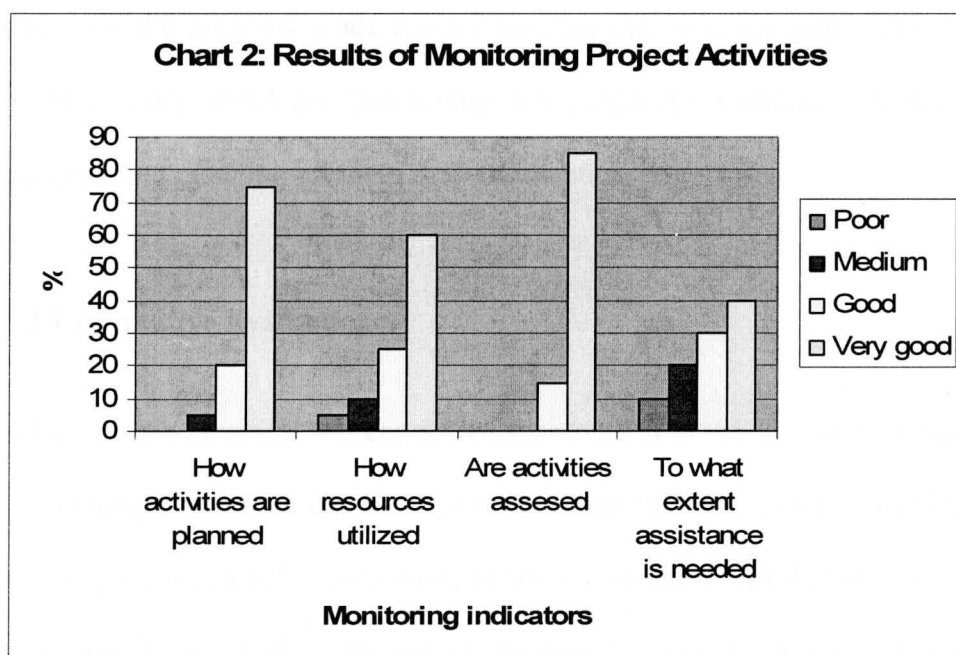
Data we directly analyzed using excel and SPSS program and data are presented using percentages and frequencies.

5.2.3 Monitoring results

Monitoring of project activities was done on monthly basis involving all team members. Results of the monitoring showed that about 75% of all the planned activities were timely done. Twenty women (100%) were trained on chicken keeping technologies, use of chicken manure to improve soil fertility and savings and credit scheme. Preparation of the constitution and registration was done as stated in the work plan.

The training was efficient because the number of chicken kept and vegetable production have increased. About 86 % of the respondent said that resources were efficiently utilized; facilitators were available when asked to participate in the training; training materials were sufficient and inputs were available. However, 5% of the respondent said that resources were poorly utilized because there was no need of using trainers from outside the District (Chart 2). However, the MKIWAKI organization has no accountant and currently they don't have money to hire one.

Eighty five percent of the respondents acknowledge that project activities were assessed and documented as planned. All purchased items were recorded in the ledger books and when issued it was well documented. The supervision of other staffs was done by the project coordinator and CBO leaders. Respondents feel that the MKIWAKI management needs some assistance in ensuring the success of the organization.



5.3 Evaluation

Evaluation was done to assess the achievement of immediate objectives, output and activities. A team comprising of a CED technical adviser, CBO leaders and members, village extension officer and development partner from SIDO were involved in the mid term and end term evaluation of the project. The evaluation process was done through interviews, review of progress report, existing group records and community financial accounts. The technical advisor formulated an evaluation plan which consisted of both formative and summative evaluation. The purpose of the evaluation was to evaluate the successful accomplishment of project objectives.

The two types of evaluation used in this study were the formative and summative evaluation. Formative evaluation assesses current, ongoing program activities, provides an internal process that compares the planned program with the actual program, and measures the progress made toward meeting the program goals. This evaluation type helps identify problems threatening the program's viability, enabling the program manager and planning group to make mid-course corrections.

5.3.1 Formative Evaluation

A formative evaluation was conducted six month after the start of the project to assess the ongoing project activities and provide information that could be used to improve the project performance. Formative evaluation is a valuable tool that informs project managers the status of the project and provides the basis for a future summative evaluation of the project. During the formative evaluation the important aspects which

were assessed by evaluators are 1) how the project were being implemented and whether it was operating as intended, and 2) the progress made toward reaching the project goal. The evaluation process included an observation of projects activities, trainers and trainee attitudes and behaviors, and whether key benchmarks were met.

Evaluation questions were as follows:

- To what extent does the project implementation plan being followed as documented in the work plan?
- To what extent does the participating woman receive the intended training?
- To what extent does the trained women practice improved chicken integration system?
- Are the resources being appropriately directed to fulfill the goals of the project?

5.3.1.1 Research Methodology

The evaluation plan was prepared before the implementation of the project activities. It was extremely important to plan for the evaluation aspect of a project from the outset (what kinds of questions to be asked, how data will be collected, etc.), so that the project can be implemented and the necessary data can be collected as stipulated in the work plan. In addition, development of a timeline for the evaluation was done before the startup of the project to ensure timely data collection and smooth running of the project.

In selecting the method for collecting data for formative evaluation it was necessary to consider the strengths and weaknesses of each method. The evaluators used a multiple

sources of data collection method in order to answer each evaluation question. The use of different instruments enabled the evaluators to test the consistency of findings, called triangulation, which makes a more compelling case of evaluation findings.

The evaluators administered face to face interview to 20 selected trainers, while self administered questionnaire were distributed to 3 CBO and 2 project staff. Trainees were asked about their attendance at the training sessions, how they rated particular aspects of the training, if technical assistance and resources needed was available to them, and how their chicken keeping husbandry practices had changed since the project began. CBO leaders and project staff were asked if activities were conducted as agreed in the work plan and if the resources are used properly.

To address the issue of potential bias inherent in this approach, a document review and several observations of the training sessions were also conducted. For example, evaluators collected a sample of training manuals and farmer field record books to assess how well technology was imparted to the selected women. Observation during training session were used to determine whether trained women were comfortable and participating in asking questions and to compare the knowledge and skills acquired during the training and their traditional knowledge.

5.3.1.2 Study Design

The formative evaluation focused on implementation rather than outcomes, evaluators focused on the trained women rather than having a comparison or control group. The formative evaluation was used as a tool to monitor the development of the project during the first six month of the project. The method used to collect information, were interviews, observations of the training sessions and review of training manuals.

5.3.1.3 Sampling Approach

The most important factors considered on whether to study the entire project population or sample of the population during formative evaluation were; the size of the project, the number of participants, cost, and time. The project covered a small number of women hence it was possible to involve all twenty participating women in the evaluation and key informants who participated were purposively selected.

5.3.1.4 Analysis Plan

Findings of the formative evaluation were discussed during the planning meeting conducted after every three months. Evaluators prepared a formal report for project staff and other stakeholders, which combined survey analysis using frequencies and percentages, qualitative data from training session's observations, and information gathered from the document review.

Training session's observers assessed whether trainers followed program standards related to chicken integration technologies and recorded trainee's engagement in order to compare between technology-enhanced activities and traditional activities (Table 7).

Table 7: Formative Analysis Plan

Evaluation question	Indicators	Data sources	Who collect data	Sampling approach	Analysis
1. To what extent does the project implementation plan being followed as documented in the work plan?	Number of activities conducted and accomplished. Number of resources available Number of trainees and trainees available	Trainees and CBO leaders surveys Document review Training session observations Attendance register	Project coordinator Project technical adviser Supervisors	Random and Purposive sampling	Descriptive statistics Training observation
2. To what extent does the participating woman receive the intended training?	Number of training sessions Content of the training material Change in knowledge and practice	Trainees , project staff and CBO leaders surveys Document review Training session observations Attendance register Farmer record book review	Project coordinator Project technical adviser Supervisors	Random and purposive sampling	Descriptive statistics Observation of training session

3. To what extent does the trained women practice improved chicken integration system?	Change in knowledge and skills Number of trained women practicing what they have been trained	Trainees , project staff and CBO leaders surveys Document review Field visit Observations	Project coordinator Project technical adviser Supervisors	Random and Purposive sampling	Descriptive statistics Training session, field visit
4. Are the resources being appropriately directed to fulfill the goals of the project?	Number of available resources Number of participants benefit from available resources	Trainees , project staff and CBO leaders surveys Document /ledger review Observations	Project coordinator Project technical adviser Supervisors	Random and Purposive sampling	Descriptive statistics Training session observation

5.3.1.5 Timeline for Implementation

Training session observations were held in October, January, April and June to observe changes over the course of the training period (Table 8). A review of documents was done throughout the year (e.g., attendance register, farmer record books and training manuals). Interview to trained women and key informants was done in June 2006.

Interim findings were presented to project staff, donors and other stakeholders to ensure project staff had adequate time to make adjustments to the project before continuing with other activities.

Table 8: Formative evaluation Timeline

Timeline for Study Implementation	
Activity	Schedule
Conduct training session observations	Late October, early January, early April , Late June
Collection and review of documents	Mid-September, early December, and early May
Conduct interview (survey) to trainees and key informant	Late June
Data entry and analysis	Late July
Report writing and Submission	Late August

The evaluation has identified findings related to these issues, but they are based primarily on the perceptions of key informants and to a limited extent the responses to certain survey questions.

5.3.1.6 Formative evaluation findings

This section of the report presents the findings from the research described above. The findings are generalized when they represent a clear majority of the views of relevant informants and are supported, or at least not contradicted, by any available alternative lines of evidence.

Formative evaluation Questions:

Question 1. To what extent does the project implementation plan being followed as documented in the work plan?

Finding: Ninety eight percent of the trained women, CBO leaders and selected interviewed project staff indicated that the project activities are being implemented as planned. However, they requested that the number of training sessions to be increased in order to make trained women competent in imparting technology to other women community members. Trainers suggested that it was better not to have trainings on Thursday because it was a market day in Kitomondo village, and they would like to participate in providing services such as food vending to traders.

Question 2. To what extent does the participating woman receive the intended training?

Findings: About 100% of the trained women showed that the training received is of great importance to them as most of the issues concerning chicken integration micro-enterprise were not known to them. Results from observation of the training sessions and manuals were impressing because they were prepared in a simple way to allow easy understanding of trainees. Realizing the fact that most participants had low literacy level most of the training was done using demonstration, posters and games.

Question 3. To what extent does the trained women practice improved chicken integration system?

Findings: All the trained women 20 (100%) are practicing improved chicken integration system. However, most of them complained about lack of capital to construct the recommended chicken houses. They suggested that they will start constructing one big chicken house and each woman will contribute three chickens for the start and later when their income increases each one will build chicken house at their homes. Apart from joint chicken enterprise, each women keep chickens in their households.

Question 4. Are the resources being appropriately directed to fulfill the goals of the project?

Findings: Observation results showed that resources are used efficiently. Trainers and trainees received all the resources required in the training. Review of ledger books, and farmer field record books indicate the date and type of resources which have been given to them. The resources were used for the purpose of fulfilling the goal of empowering women.

Discussion of the formative evaluation

From the above results it can be concluded that the project is on track and activities are timely done. Resources are used efficiently and participating women are impressed with the imparted knowledge on chicken integration micro-enterprise. Trained women have started practicing the improved chicken keeping husbandry. Chickens are being supplemented with different feed stuff and disease prevention herbs are provided as trained.

5.3.2 Summative Evaluation

Summative evaluation measures the success of the completed project. The result of summative evaluation can be used to recruit new host sites, funding sources, and participants, and to publicize the project. The summative evaluation often turns up unanticipated outcomes, identifying aspects of the project that would be otherwise overlooked. The evaluation issues considered in this project were: Relevance, Project Design and Delivery, Program Success and Program Cost-effectiveness.

As part of a summative evaluation, the questions address how well the program achieved its goals. The focus is on outcomes, i.e., the benefits that result from program participation. Outcomes are distinct from outputs, which are the products of the program's activities. In this case, for example, the number of trained women who have been capacitated in chicken integration as part of the program is an output.

Outputs are not irrelevant, but they beg the question, so what? Why is it important that 20 women received intensive knowledge and skills in chicken micro-enterprise as part of this program? What is the intended result? Evaluation does not stop at providing data on outputs, but it extends a step further and provides information about the benefits the program delivers.

5.3.2.1 Instruments and Data Sources

Data collection was a continuous process throughout the project period. Baseline data was collected in the beginning of the project in order to have a reference point from which to judge a project's impact. Baseline data included basic trainee's demographic data, information about women prior to this project, and women sources of income and household income level. The researcher used both qualitative and quantitative method in gathering information. The survey used face-to-face interviews in administering questionnaire to trained women, while focus group discussion involved trained women and key informants such as project staff, CBO leaders, village extension officer and village leaders. Observation and documentation were also used for triangulation purposes (Table 9).

Table 9: Summative evaluations Questions

Summative evaluation issues	Evaluation Questions
Rationale/relevance	<ul style="list-style-type: none"> • How does the Project reflect current priorities and objectives of the Kitomondo community needs? • Does the Program continue to produce results that reflect the Kitomondo village priorities and the current needs of community? • Is the Program operating within its mandate? Is the Program the most appropriate response to this need? • Should the Program's objectives and/or the expected results be either expanded or restricted?
Design, delivery and management	<ul style="list-style-type: none"> • Do the project's activities reflect the principles of effective program delivery? • Are activities logically related to required outputs? Do all activities and outputs contribute to meeting the Projects objectives? Are any current activities or outputs not needed? • Are the community satisfied with the services and support offered by the project?
Success/impact	<ul style="list-style-type: none"> • To what extent is the project achieving its expected results? • Are there other potential recipients who could benefit from the project? • Is there evidence that in the absence of project support or funding, recipients would have undertaken the activity or initiative anyway?
Cost-effectiveness/alternatives	<ul style="list-style-type: none"> • Is the current project design the most effective and efficient way to achieve outcomes? • Are the resources that have been allocated being used in the most efficient and effective way to deliver appropriate results? • How does the government contribute to assisting the project?

5.3.2.2 Study Design

The study used observational descriptive design so as to get as much information for the evaluation purposes. The summative evaluation focused on concrete measurable CED outcomes that derive directly from the project. This includes process objective such as

trainings, number of business started, income increase and economic empowerment.

However, it should be noted that the process of data collection was not a single day act but it was a continuous process throughout the program period. The collected data were compared with the baseline data collected before the startup of the project.

5.3.2.3 Sampling Approach

All trained 20 women were involved in face to face interview. However, participants for focus group discussion were purposively selected in order to accommodate key informants like 3 CBO leaders, village extension officer, 3 project staff, 2 village chicken traders and 2 village leaders, 5 trained women. In total the participants for focus group discussion were fifteen.

5.3.2.4 Analysis Plan for Summative Evaluation

An analysis plan for the summative evaluation was developed in order to guide the evaluation process (Table 10). Descriptive analysis was the analytical statistical tool used to describe the outcome and impact of the project activities. Correlation analysis was also done to ascertain the effect of one or more variables on another variable.

Evaluators also examined whether there were significant differences in integration of chicken into organic vegetable as compared to chicken or vegetable project alone.

Qualitative data from focus group interviews, observation and document review were used to help explain the findings from the statistical analyses and provide the basis for recommendations concerning the project.

Table 10: Summative Evaluation Analysis Plan

Evaluation issues	Indicators	Data sources	Who collect data	Sampling approach	Analysis
1. Rationale/relevance	-The extent to which project activities address community needs	Trainees and CBO leaders surveys, key informants Document review Training session observations	Project coordinator Project adviser Supervisors	Random and Purposive sampling	Descriptive statistics Training observation
Design, delivery and management	- Number of trained women receive relevant skills - Number of training tools used and the extent to its relevancy	Trainees , project staff and CBO leaders surveys Document review Training session observations	Project coordinator Project adviser Supervisors	Random and purposive sampling	Descriptive statistics Observation of training session
Success/impact	-Change in skills and knowledge - Changes in production practice - Increased income level - Number of business established	Trainees , interview, key informants Document review Field visit Observations	Project coordinator Project adviser Supervisors	Random and Purposive sampling	Descriptive statistics Training session, field visit
Cost-effectiveness/ alternatives	-To what extent are the activities cost effectiveness –	Trainees , CBO leaders surveys Key	Project coordinator Project adviser	Rando m and Purpos ive sampli	Descriptive statistics Training session

	- To what extent does the expenditure	informants Document /ledger review Observations	Supervisors	ng	observation
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5.3.2.5 Timeline for Implementation of Summative Evaluation

The summative evaluation was planned to be conducted at the end of project in January 2007 (Table 11). However, the data collection process was done a continuous process.

The evaluation process involved a number of activities which included; Observation of training sessions, review of documents, discussion with key informants and face to face with trained women to evaluate changes occurred during the stated period.

Table 11: Summative Evaluation Timeline

Timeline for Study Implementation	
Activity	Schedule
Conduct training session observations	October 2005, May 2006, October, 2006, January, 2007
Collection and review of documents	November, 2005, April, 2006, October, 2006
Conduct interview and focus group discussion with trainees and key informant	October, 2006 and December, 2006
Data entry and analysis	January, 2007
Report writing and Submission	January to February, 2007

5.3.3 Achievement to date

A lot has been achieved during the 18 months of the project life; the project has shown to be successful in achieving the goal of empowering women economically. Table 12, highlights the expected project outcome and actual project outcome.

The project objectives have been achieved by the project, however, the extent to which these objectives have been attained are explained in next section.

Table 12: Summative Evaluation Outcome

Indicators	Summative evaluation results, January 2007	
	Expected outcome	Actual outcome
Project Goal: To improve the standard of living through increase in business opportunities		
Impact: Number of women started chicken selling business	20	20
Outcome: Number of women empowered through increase in their income	20	20
Output: Number of women trained in chicken integration	20	20
<u>Objective 1:</u> To facilitate the initiation of chicken micro-enterprise project for 20 Kitomondo women by February, 2006.	20	20
Impact: Improved chicken keeping	20	20
Outcome: Number of women with increased knowledge in chicken integration enterprise	20	20
Output: Number of women trained in chicken integration	20	20
<u>Objective 2:</u> To increase the productivity of	7000	7500

amaranthus from 3,000 kilograms to 7,000 kilograms per acre through improvement of soil fertility by June 2006.		
Impact: Increased vegetable productivity in Kilograms	7000	7500
Outcome: - Number of women with increased knowledge in vegetable production using chicken manure	20	30
Output: - No of women trained in the application of chicken manure in vegetable production	20	30
Objective 3: To train 20 Kitomondo women on savings and credit services by November, 2006.	20	20
Impact: Increased number of women registered in ward savings and credit scheme	20	15
Outcome: - Number of women with increased knowledge in savings and credit services	20	20
Output: No of women trained in savings and credit services	20	20

5.3.4 Findings

This section of the report presents the findings from the research described above. The findings are organized around issue areas identified in the evaluation terms of reference. The findings are generalized when they represent a clear majority of the views of relevant informants and are supported, or at least not contradicted, by any available alternative lines of evidence.

1. Evaluation on Project Rationale/Relevancy

Summative evaluation question1: What was the process used to determine the social and economic need of Kitomondo community and MKIWAKI organization?

The process used to determine social and economic need in the MKIWAKI organization and Kitomondo community was to allow communities to identify needs and projects.

The innovative projects were more responsive to community members. Previously, gaps in knowledge and skills on conducting chicken integration project were identified to be lacking and there was a need to capacitate women in order for more community member to be acquainted with the business potentials. Project sponsors and other stakeholders conceived of the ideas and the proposals were successful in empowering women economically.

• Is the Project operating within its mandate? Is the Project the most appropriate response to this need?

Findings from observation, document review and structured discussion with key informants and selected trained women revealed that the project is operating within its mandate. The aim was to empower

Kitomondo women economically through training on diversification of income sources and integration of chicken keeping into organic vegetable was selected by the community because of its potential to alleviate poverty and the initial cost are small and most community members have been keeping chicken since memorial.

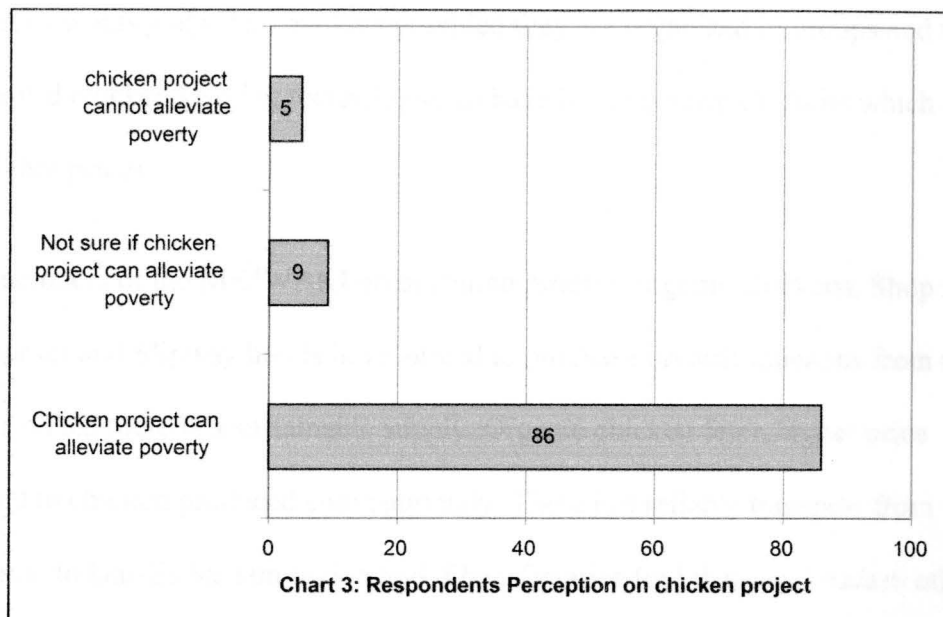
Interviewed members and leaders revealed that with better management, and increase in flock size chicken project can contribute to poverty alleviation. Results are presented in chart 3.

Respondents explained that since most of them depend on agriculture for their livelihood and crops are always affected by drought and low prices it is better to integrate chicken.

Reasons for chicken preference are;

Chickens are easily marketed, short time investment pullets can be sold within two months, low inputs, chicken are locally available, the project is not labor intensive even children can help to provide water to chicken, few chicken can be sold and provide big bucks, and chickens can be sold at any time. Manure for fertilization can be readily available from chicken.

About 85% of the interviewed 20 trained women believe that chicken integration can alleviate poverty, while 5% are optimistic and 5% are reluctant to believe on the ability of the project to contribute to poverty alleviation.



Source: Evaluator own survey

- **Should the Program's objectives and/or the expected results be either expanded or restricted?**

Interviewed trained women and other key informants propose the project to be extended to a big number of community members so as to benefit from the enterprise. During the project implementation many women and men were asking if they could join and learn on the project activities. Community members believe that although there is no defined market for chickens still the demand for local chickens is high in Mkuranga district and in Dar es Salaam.

Respondents explained that chicken markets involved a number of villages, and buyers included traders from town and city markets. Although, the marketing system is not well organized but there is a lot of opportunities for farmers to sell their chickens in big

hotels, restaurants and urban markets provided they are organized in groups and trained in improved chicken keeping technologies to have better quality chickens which could fetch higher prices.

Since members of the MKIWAKI organization produce organic chickens, Shoprite super market and Slipway hotels have agreed to purchase organic chickens from this group provided there is a sustainable supply. Organic chicken fetch higher price compared to chicken produced conventionally. There is a reliable transport from Kitomondo to Dar-Es Salaam region and if beneficiaries find that local traders offer low prices they have option of sending their products to Dar Es Salaam where they can get higher returns. Beneficiaries cannot only sell live chickens, but they can also sell eggs provided the production is high. In Mkuranga district there is a number of Secondary schools where teachers and student can serve as important customers.

2. Evaluation on Design and Delivery

Summative evaluation question 2: Are activities logically related to required outputs? Do all activities and outputs contribute to meeting the Projects objectives?

Are any current activities or outputs not needed?

Observation and results of the document review showed that all itemized project activities contribute to achieving the project objectives. However, activities such as preparation of constitution for the CBO and registration are not continuous; once they are done it is over. All other activities regarding capacity building need to be extended to other community members.

- **Are the community satisfied with the services and support offered by the project?**

Findings from focus discussion with key informants and review of documents show that the community is satisfied with the services provided by the project, but more work is needed to be done to reach a big number of community members in terms of provision of training and frequent supply of different vegetables and chicken.

How were the potential applicants and the community informed about the MKIWAKI project? Was the external communication effective?

Of the 20 trainees surveyed, 100% became involved in the project through word-of-mouth. However, MKIWAKI organization and trained women can promote the project through conducting farmer's field days, demonstration plots and advertising in meetings.

3. Project success/Impacts

Evaluation question 3: Have the intended impacts of the project been achieved?

About 50% of trained women felt that increased knowledge and skills were the primary benefits received from the training project, and 45% believed the training will make a difference in their ability to adopt chicken integration enterprise. About 5% of trained women felt the training received was more effective relative to other methods of training, mainly because of the use of demonstration, posters and games.

In general during the discussion with key informants, project leaders, staff members and trained women it was revealed that the overall training was effective in meeting Kitomondo community members needs of alleviating poverty. However, the challenge is for trained women to train other community members on how to start chicken integration micro enterprise.

How satisfied are participants with the project?

The outcome of the project was geared towards increasing the trainees' abilities to participate in income generating activities for the purpose of increasing income. The project goal was accomplished upon project completion:

20 trainees women have started the production and selling of chicken and vegetables, while 15 trained women have been registered in Kitomondo ward Savings and Credit Scheme. 4 out of 20 women have started small other business such as Kiosk, selling of local beer and food vending.

3 trained women who have started chicken business have managed to pay school fees for their secondary school children's. The number of chicken kept has increased from 5 before intervention to 33 chickens per household (Table 13).

Table 13. Respondents Average flock size kept

Number of chickens	Number of chickens kept before by trained women before project intervention	Number of chicken kept by trained women after project intervention
Mean	7	34
Median	5.00	31
Std. Deviation	6.31	10.49

Mean income from chicken sell has increased from Tsh 8,200 to Tsh. 60,250 per year, while vegetable (amaranthus) production has increased from kilograms 4,745 per acre to kilograms 9,585 per acre.

4. Program Cost-Effectiveness

Evaluation question 4: Are the resources that have been allocated being used in the most efficient and effective way to deliver appropriate results?

Overall, resources for chicken project have been used effectively. A measure of success in resource allocation was that overall, administration costs were kept at 10%, and therefore most of the funding was spent directly on training. Trained women contributed only by attending the training and chickens. All other cost regarding payment of trainees was done by donor and government.

Is the current project design the most effective and efficient way to achieve outcomes?

Trained women when asked if they believe that the training they received was efficient to achieve the outcome, 90% of the 20 trainees believed it was, while 4% did not and 6% were unsure. The reasons cited by the 15 trainees for cost-effectiveness included the costs to the trainee were free (65%); the course content was valuable (30%); the training was accessible/close to home/did not have to relocate/could keep doing household activities (5%).

How does the government contribute to assisting the project?

The government contributed to the project by allocating and paying salaries to village extension officers who are responsible for imparting agriculture and livestock technologies to community members. Also, other officers such as cooperative development officers who are dealing with training community members in savings and credit are government employees. Starting this year the Government of Tanzania has allocated one billion shillings which can be borrowed by all Tanzanians to promote their business.

Is the program model a cost-effective way of moving people from income poverty?

Before engaging in chicken production it was necessary to calculate if it was economically feasible to do so. The discussion was done during focus group discussion between farmers, key informants and researchers to evaluate the feasibility.

The costs of different items were listed and the calculations were made basing on assumption that the farmers start with 6 chickens (5 hens and 1 cockerel). This model was adopted from Benin, 2000. Results showed that chicken-keeping enterprise is viable because farmers are assured of getting an income of Tsh.107, 000 per year for start (Table 14a, 15b,).

About 89% of interviewed trained women said that this project is cost-effective compared to other enterprise because most of them keep chickens and they only need to incur cost on chicken housing and feed supplement. Chickens take shorter time to pay back. The cost benefit analysis prepared is based on the assumption that by improved management and feeding, production will increase.

Table 14 a: Example of small-scale free-range system, 52 weeks plan (Benin, 2000)

Flock size	Numbers
Local hens laying and brooding	3
Local hens laying eggs, not broody	2
Cocks Improved)	1
Surviving chickens/hen/batch *	8
Growers. Weeks 4-24	24
Total Flock size	30
Feed consumption: 1 kg/bird/4 week= 35g/bird/day	Kgs
Adults feed: 1kg x 6 birds x 52/4 weeks	78
Chicken growers feed: 1kg x 24 birds x 46/4 weeks	276
Egg production:	Numbers
Local broody hens. 72 eggs/bird/year	216
Local hens not going broody, 104 eggs/bird/year	208 -72
Eggs for hatching, 3 hens x 12 eggs x two batches/year	-82
Home consumption, 1.5 egg/week	
Saleable birds: 3 batches x 8 growers	Numbers
Cockerels. 22 weeks of age	24
Pullets for sale. 24 weeks of age	24

* 12 eggs laid= 10 eggs hatched= 8 chicks surviving after 6 months) - Source: evaluators own survey

Table 14b: Cost benefit analysis for chicken keeping in Kitomondo village

Cost benefit analysis	Quantity	Cost per unit	Cash flow
		Tshs	Tshs
5 Hen	5	3000	-15000
1 cock	1	4000	-4000
Low cost Chicken housing	1	30000	-30000
Low cost home made feed	354 kg	100	-35000
Vaccines(Newcastle), Ant worm	4 doses	2000	-8000
Feeds troughs	1	2500	-2500
Water troughs	1	2500	-2500
Miscellaneous		5000	-5000
Cash out-flow			-102000
Income (Benefit)	Quantity	Cost per unit	Cash flow
Sale of eggs	270	100	27000
Sale of cockerels, 22 weeks	24	3500	84000
Sale of pullets, 24 weeks	24	3000	72000
Sale of manure	52 bags	500	26000
Total cash inflow			209000
Net cash flow			107,000

5.3.5 Discussion and Implication of the major findings

This research was done with an assumption that integration of chicken keeping into organic vegetable project is the best alternative to increase income food security and crop productivity hence alleviate poverty. Evaluation results showed that the project is relevant and effective in alleviating poverty as seen on cost benefit analysis done.

Results showed that the aspect of receiving free training was seen as relevant and efficient to trained women. The content of the training materials and methods used to train women was considered to be efficient and relevant because most of the participating women had low literacy level. The skills and knowledge acquired during training enabled trained women to increase production and income of vegetables and chickens. However, the challenge is for trained women to train their fellow community members who are requesting to be trained. The project activities were accomplished as planned. All the activities were logically itemized and directed towards achieving the goal of empowering women economically.

The project impact showed about 95% of the project objectives has been met. The income from vegetables sale has increased from Tshs 6,000 to Tshs 25,000/ per months and chickens income has increases from Tsh 7,025 per year to Tshs 57,950 per year. If trained women continue with their commitment to increase their production and income there will be a significant change in their standard of living. Fifteen women out of 20 trained members have registered to the ward SACCOS and the remaining 5 members promised to join in February 2007. The 20 trained women have prepared a mini project proposal and sent it to the bank to request for a loan of Tsh 600,000 for the purpose of expanding the chicken business.

In order for the community to be satisfied with the services provided by the project, there is a need for MKIWAKI leaders and members to create awareness to community members through meetings and farmers field days, where they can explain their activities and share their success stories.

The results of the evaluation are in line with study done by P. Msoffe (2006) in Mwanga in Same districts which indicate that in the first year a farmer can get an income of Tsh 60,000 from selling chicken and that chicken keeping is a viable project.

5.4 Project sustainability

Project sustainability is the capacity of a project to continue functioning, supported by its own sources, even when external sources of funding have ended. Community members through knowledge and skills acquired are able to carry on even after the FARM AFRICA support. There is a well-prepared strategy to ensure sustainability.

Sustainability Elements

Financial aspect: Women in Kitomondo are organized in groups for saving and credits. When they sale chickens and vegetables some of the amount is contributed to the account. Each trained member contributes Tsh 2,000 per month. They started in the contribution in October, 2006. This activity is considered as traditional savings and credit. Members are allowed to borrow and refund the loan with 10% profit. This money assists members in buying seeds or feed supplement for their chickens or any household needs. Until now things are going on well and it is good because 15 women has already join a registered ward SACCOS where they can have the advantage of getting a bigger loan.

Political aspect: The MKIWAKI members are recognized by political and government leaders in the village. The leaders are committed to help the group to develop. Leaders want to see people's life change for the better and they are encouraging MKIWAKI leaders to involve many women in development activities. They sometimes assist women in requesting for the loan to expand their business. Even the local government is involved in training community members in other villages on chicken keeping projects. The village extension officer is available to provide free service.

Social circumstances: Socially the project is viable because traditionally women are the ones who are involved in vegetable and chicken production. Chicken is not a newly introduced idea; rural people have been keeping chicken since memorial what was lacking is skill and knowledge to make the project contribute to poverty alleviation. Since women have been imparted with the required knowledge and skills it is possible for the project continue bringing change to the community members.

Sustainability Plan

The community through knowledge and skills acquired shall be able to carry on even after the project support. Further more there is a well-established research extension link in those areas that will continue with project activities after the end of the project. The District through livestock department has started training farmers in Mkuranga District on chicken keeping technology and they are ready to support farmers in using hatchery machine from the nearby village. On the issue of marketing the group has been linked with Shop rite, Envirocare and Slipway hotel in Dar es Salaam.

Institutional Plan: The organization is planning to train more community members on the importance of income diversification through chicken keeping, hence gain support and participation of the community. The organization supporting the project is committed to contribute Tsh.2, 000,000 to the MKIWAKI account so as to be used as revolving funds. Currently the CBO leaders and members have opened a bank account and they have about Tshs 200,000. If the donor (FARM AFRICA) disburses the two millions shillings then members will have the chance of getting a loan for the expansion of their businesses. At the same time request for the loan of about Tsh 600,000 for the purpose of purchasing more chicken and other feeding equipments have been forwarded to the bank. However, it should be understood that to start a chicken micro -enterprise community members do not need to have a big capital. As explained in the cost benefit analysis a farmer may start with 5 chickens which she have and follow the recommendation of good chicken husbandry.

One important aspect is that the project supplements long-term policies of the Tanzanian government to improve the economy of its people. The Government has allocated 1 billion shillings for each region for development activities and MKIWAKI organization has already forwarded the request for loan.

5.5 Shortcomings

Although there has been some achievement in this project but there are some limitation which need to be addressed for the success of the project.

There is the need for frequent monitoring because women are easily satisfied when they get some money they find themselves relaxing thinking that it is enough. Also majority of respondents (90%) still keep chickens in their houses which is not a good practice. Poor chicken housing can partly explain poultry losses/mortality. It is known that lack of proper shelter for the chickens immediately after hatching results in high mortality (Aichi Kitilyi, 1999), as the chicks are exposed to vagaries of nature and are a prime target for carnivores such as birds, dogs, cats and reptiles such as snakes. This necessitates the need of financial assistance in terms of loans.

CHAPTER VI

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Conclusions

Integration of chicken into organic vegetable project is the first step to empower women economically. The need assessment conducted in the beginning of the project revealed that community members are constrained by low-income earnings. Chicken keeping is not new for Kitomondo community members; however, there was a need to diversify to sub commercial production. Twenty women have already been trained on chicken keeping and vegetable production for the purpose of increasing income and food security.

Cost benefit analysis done shows the possibility of increasing income up to Tsh 100,000 per year by selling 20 to 25 chickens only. Chickens micro-enterprise is an effective and viable project to alleviate poverty for women and disadvantaged groups.

Evaluation results showed that the number of chicken kept per household has increase from 5 to 32 chickens in 18 months; while the income of chickens has increased from Tsh 7,025 to Tsh. 57,950 per year.

With proper training community members has the possibility of alleviating poverty through chicken business as it takes shorter time to start realizing the benefits.

Predation, diseases and lack of knowledge were identified as major constraints of chicken production in Kitomondo village. Recommended proper chicken house, cleanliness and frequent administering of local herbs to chickens can help to reduce the

problem of predation. There is a number of Literatures which suggest that most chicken project which was successfully had a loan component (FAO, 1995).

6.2 Recommendations

The researcher recommends that it is important for the Mshikamano Community Based Organization to be aggressive in implementing development activities so as to ensure the goal of empowering women in Kitomondo village is achieved.

- The organization should create awareness to other community members especially women on what they are doing and how they can involve a large group of people in their community to participate in the project.
- The Mshikamano Community Based Organization should increase their collaboration with the village leaders in order to facilitate their activities to be recognized by many people in the community.
- The local Government should give priority to women groups in the provision of credit and also ensuring that in each village there is a village extension officer who can facilitate the development of agriculture and livestock projects in the respective villages.
- Development of village chicken production can be a useful way of helping to meet the nutritional, income, employment and gender needs of the rural population.

The government should ensure community members are enabled to acquire loan with low interest rate for the establishment of chicken and other business so as to

contribute to poverty alleviations. Also facilitate the availability of Newcastle vaccines close to the vicinity of the community members.

- In depth training and sensitization of community members on disease control and good chicken shelter will reduce the mortality of village chickens.
- Researchers should embark in testing the efficacy of local herbs in the prevention and treatment of chicken diseases.

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