THE SOUTHERN NEW HAMPSHIRE UNIVERSITY

AND

THE OPEN UNIVERSITY OF TANZANIA

MASTER OF SCIENCE IN COMMUNITY ECONOMIC DEVELOPMENT (2007)

PERFORMANCE OF BURNT BRICKS ENTERPRISES IN MISSUNGWI – WARD. (THE CASE OF BALIZUKWA – BURNT BRICKS PROJECT.)

NDASSA ISAAC SOMANDA

SOUTHERN NEW HAMPSHIRE UNIVERSITY

AND

THE OPEN UNIVERSITY OF TANZANIA

MASTER OF SCIENCE IN COMMUNITY ECONOMIC DEVELOPMENT (2007)

PROJECT: PERFORMANCE OF BURNT BRICKS ENTERPRISES IN MISSUNGWI – WARD (THE CASE OF BALIZUKWA - BURNT BRICKS PROJECT)

"SUBMITTED IN PARTIAL FULFILLMENT OF REQUIREMENTS FOR THE MSC IN COMMUNITY ECONOMIC DEVELOPMENT"

Name: NDASSA ISAAC SOMANDA
CDTTI – MISSUNGWI
BOX 2799 – MWANZA.

SUPERVISOR'S CERTIFICATION

I Editrudith S. Lukanga Certify that I have read this research paper and accept its scholarly work and there fore recommend it to be awarded a Masters Degree in Community Economic Development.

Supervisor's Signature.....Lanya.....Date.....30th JUNE 2007

COPYRIGHT

DECLARATION

I, Isaac Ṡomanda Ndassa declare that this paper is my own original work and has not been submitted for the similar degree in any other University.

Signature.....Date..30.07.2007.....

DEDICATION

This paper is dedicated with affection to my wife Martha Erasto Michael and our children Esther; Unicy (Gashi); Rebecca and Samweli who in many cases missed at the times they needed me the most during the period of my study.

ACKNOWLEDGEMENT

I wish to express my sincere gratitude to all the individuals and institutions that in one way or another have contributed towards the successful production of this research paper.

My first and fore most thanks go to Mr. Michel Adjibodou Program Director, and all other responsible CED staff for their encouragement and time availed to me while conducting this study.

I wish to thank the office of the District Executive Director and CDTTI Missungwi offices for their substantial support during data collection. I am grateful to Mr. Moses Mabula the District Planning officer, and other officials to mention a few Mr. Masawe; Mrs. Sanga Bernadetha; Mr. Paul Dutti and Miss. Kuzenza V. for their encouragement and assistant and offered me in obtaining a variety of information.

I am most grateful to my research supervisor Mrs.Editrudith Lukanga for her inspiring and untiring supervisory advice, for her moral support and encouragement during the whole period of my study.

I would like to express profound gratitude to colleagues Anatory Binduki and Hon. Magalula S. Magalula who in many ways have contributed for the success of my study. Others are Mrs Flora Manyilizu and Mr. Levin .A. Mrutu who typed this paper.

I would like to express my deepest appreciation to my wife Martha E. for her tender care during my research period and her special encouragement, which enabled me to complete my research study comfortably.

TABLE OF CONTENTS page

CHAPTER ONE: COMMUNITY NEEDS ASSESSMENT

CHAPTER TWO: PROBLEM IDENTIFICATION

CHAPTER THREE: LITERATURE REVIEW.

8.0. List of Appendices

LIST OF TABLES

List of Abbreviations and Acronyms

BRU - Building Research Unit.

CARE- Cooperative for Assistance Relief Everywhere.

CBO - Community Based Organization

CDO - Community Development Officer

CDF I - Community Development Financial Institution Fund.

CDTTI - Community Development Technical Training Institution.

CED - Community Economic Development.

CAN - Community Needs Assessment.

CSDP - Community Social Development Program.

DED - District Executive Director.

HESAWA - Health Sanitation Water.

MSE - Micro and Small Enterprises.

MRHP - Mwanza Rural Housing Program.

NGO - Non –Governmental Organization

PRAs -Participatory Rural Appraisals.

PRIDE -Promotion of Rural Initiative & Development Enterprise LTD.

SACCOs -Saving and Credit Cooperative Societies.

SATF -Social Action Trust Fund.

SPSS -Statistical Package for Social Development Program.

SEDA -Small Enterprises Development. Agency

TASAF -Tanzania Social Action Fund.

TANESCO-Tanzania Electricity Supply Company.

TTCL - Tanzania Telecommunication Company Limited.

USA - United States of America.

WDF - Women Development Fund.

ABSTRACT

The project report aims at assessing burnt bricks project and its effects to people's livelihood and environment in Balizukwa Community in Misungwi District, Mwanza region.

There are different types of building materials which are well known and used worldwide. Some of these materials are locally available and some have to be improved from other countries.

In the ongoing drive for utilization of local building materials, burnt clay bricks play an important role. In Tanzania suitable clay for brick making is found in many parts of the country. Burnt clay bricks are a high quality building material which can be used for load-bearing walls. This material therefore provides a long term technical solution to structural walling. The production of bricks reduces construction costs as the employ utilization of local materials, need small capital investment, small transport costs, extremely good and permanent and it offers high opportunities for employment. Indeed, bricks are the best existing walling materials. Although the initial investment might be higher in some cases, the total life cycle costs are lower than most of the building materials that are in use today.

Various measures have been taken by the government of Tanzania and Balizukwa community based organization on this side to eradicate the problem but the situation is still not favorable for human living standard as the case on what factors hinders the development and growth of the burnt brick projects in the community and the Balizukwa CBO as a case study. The study examined the contribution of Burnt Brick Project to the

people's livelihood and environmental conservation. It also went on looking into ways of enhancing the capacity of the CBOS and the communities in 5 villages of Misungwi ward on the entrepreneurship skills, housing micro-enterprises and brick making knowledge.

EXECUTIVE SUMMARY

BALIZUKWA is a community-based organization dealing with production and selling of burnt bricks. The idea of starting this project was conceived as a result of adverse income poverty in the community. This income-generating project aims at improving their living standards. The choice of the project relied upon on the prevailing situation in the project area (Missungwi) that is densely populated and constrained with, extreme poverty, poor environment and poor houses.

The survey was conducted to solicit information about the performance of micro enterprises and burnt brick project in Misungwi ward by drawing a case example of BALIZUKWA CBO dealing with small-scale brunt brick project.

To realize final products of the research in view of the study objectives, the following research questions were used for gathering data: What are the major factors affecting the effectiveness of the CBO members involved in the burnt bricks project? How does the brick making project outcomes have affected the livelihood of burnt bricks makers?, Which raw materials are used for brick making? Are there any alternative materials for brick burning easily accessed to all community members? What are the procedures applied for provision of housing micro – credit and for improving the low cost housing initiatives and the economic status of CBO members., What problems does the project cause to the environment? To reach the goal the researcher used different methods such as Focused group discussion, Observation, Face to face interview, on what are key factors, which lead to poor living standard of the CBO members.

The survey is geared to identify challenges, propose solutions and recommendation for improving the micro enterprises and burnt brick sector as key strategy towards poverty reduction.

Findings and their analysis, reviels that three factors were identified as hindering blocks in the burnt brick industry. These include inadequate raw materials (natural resources energy), As a result of adverse weather condition there had been low rainfall intensity (drought) that resisted the growth of natural vegetation cover and paddy production, which are the major source of energy for rice husks and fuel wood used for making burnt bricks.

As the burnt brick project is concerned and rural based in nature, there has been unpleasant implementation status attributed to lack of capital, inadequate raw materials, poor working tools and techniques, limited time and low level of community awareness on burnt bricks activities.

Literature reviews focuses on the concept of alternative raw materials for burning bricks likewise the identification and use of energy saver burning kilns. There are many policies concerning building materials industry, appropriate technology, housing, environment, poverty reduction, micro-enterprises and rural economy that focused on peoples development, but the problem was how to put these in practice.

The Monitoring and Evaluation was done through Focused Group Discussion and field visits, during monitoring and evaluation, I was able to assess the outputs realized and the results realized by the bunt brick project and set procedures for sustaining the project benefits.

The study has explored the key factors affecting the performance of the burnt brick project and its relationship to the micro-enterprises. It is clearly noted by the study that working in groups such as those in the BALIZUKWA CBO increases the security and morale of working effectively. The study urges the rural community to establish many CBOS, which may foster their income generating activities (micro-enterprises) as mechanisms for combating poverty and improve the standard of living.

However, most rural community have developed desire to build permanent houses using burnt bricks, whose costs is cheap, and can be produced using locally available materials. Finally, this study has achieved its objectives, though there are gaps that need further research. The study recommendations shall be applied by policy makers and decision makers to improve the standard of living among the rural community by having permanent houses, earning good incomes, enhancing capacities of micro-enterprises and conserving the environment.

CHAPTER ONE

COMMUNITY NEEDS ASSESSMENT

Community Needs Assessment (CNA) is a community development and planning tool that can be used by any target community to identify and assess its needs and gaps in relation to the available resources and opportunities. In identifying community needs among the burnt bricks makers, the researcher in collaboration with gathered data required for developing community baseline information. Initially, the CED student prepared the checklists for collecting baseline information through questionnaires, documentary reports and by his direct observation. The gathered data was later analyzed before the researcher presented findings and results as explored in this chapter.

This study assesses the contribution of the burnt bricks project towards improving community's livelihood and its effects the surrounding environment. It also looks into effective, environmental friendly and sustainable local technologies of burning bricks. BALIZUKWA Community Based Organization (CBO) based in Misungwi district implements the burnt brick project.

Balizukwa is one among various CBOs dealing with burnt bricks and housing micro-enterprises in Misungwi district. The choice of this community originated on the ground that the CBO has a long term experience in doing this project that aims at promoting low cost housing and improve group members' and communities' standard of living.

1.1 Community Profile

Missungwi district is situated on the southern part of the region along the western shores of Lake Victoria about 45km from Mwanza City. The district has 2728 square km of which 2553 square km are dry land and the rest 175 square km is covered by water.

The district has a population of about 100,000 people (2002 census) with about 32,678 residents of Missungwi ward.

Balizukwa Community Based Organization is located in Majengo hamlet, Misungwi ward in Missungwi village. Misungwi village is among 5 villages forming the Misungwi ward.

The other villages include Lubuga and Iteja on the south; to the East is Mwambola, to the North is Mapilinga and to the South West is Nange village. Missungwi District is one of eight districts forming the Mwanza region. The Balizukwa CBO was established in 1995 and registered in 1996 under the district community development office in Misungwi district. The CBO has fifteen members, of which 10 are men and five women. Its major activities include making and selling of burnt brick around the ward and it acts as one of the popular brick dissemination centres in the District. The CBO members are very committed in their daily responsibilities and perform their activities in good and encouraging relation among each other. The CBO works in an environment where there also other institutions including the market which supplies the daily domestic goods for the community not excluding the organization members. The availability of transportation system allows easy communication within and outside the district. Other institutions include Police, CDTTI, TTCL, Hospital, TANESCO, MRHP, Aide ET Action, Court, Care International, IFAD, and Missungwi Secondary.

However, the CBO needs to strengthen the project by involving youth on the project activities. Youth are equally affected by the poor habitation, unemployed and have limited income-generating (entrepreneurship) opportunities. This will as well contribute to the sustainability of the project. Also youths are the active population and contributes big share in the whole population. Generally, youths have courage and many expectations, thus their involvement in project activities can greatly contribute towards realizing project outputs and results.

1.1.1. Socio- Economic and Environmental factors:

In spite of poor rains and high temperature, Misungwi is one of the most productive districts in the region. Its prominent activities are agriculture, livestock, mines, fishing and transportation.

The major occupation is farming which is 85% of the population within working age relies on agriculture and cattle rearing. Cotton is the major cash crops, followed by maize, rice and millet for food crops. Other crops are potatoes, cassava beans, and fruits like mangoes, paw paws etc.Some people in district are engaged with small-scale mining activities such as gold and diamond. Others deal with petty Businessmen/Traders and few fishermen along the eastern shores of Lake Victoria.

For education sector, there are about 110 primary schools scattered over the district, at least each village has a primary school. Also, there are eleven secondary schools, four colleges and one zone research centre at Ukiriguru, all of which constitute to the pool of institutions in the district. On health services, there are thirty-one dispensaries, four health centres and two Hospitals. These health services provide both curative and preventive services for the entire district population.

The per capita income of the district residents is estimated at Tshs. 200,000/= per annum generated from the district gross domestic product based on the population census of 2002. Most of the incomes accrued from various peoples' productive activities are used for food, clothing, health and children education services. The income is not satisfactory because the ratio is very little for the family' survival.

1.2. Objectives of the Study

The main study purpose is to solicit information about the performance of micro enterprises and burnt brick project in Misungwi district by drawing a case example of BALIZUKWA CBO dealing with small-scale brunt brick project. It is geared to identify challenges, propose solutions and recommendation for improving the micro enterprises and burnt brick sector as key strategy toward poverty reduction. The collected information and findings are useful for making choices and decisions by various stakeholders for policy formulation in the micro-enterprise and burnt brick sector.

1.2 .2 Immediate Objectives

(i) To determine factors affecting the burnt bricks project in Misungwi ward.

(ii) To determine environmental problems caused by the project.

(iii) To device effective local interventions to respond to the identified problems.

1.2.3 Research Questions

To realize final products of the research in view of the above study objectives, the following are the research questions designed to be applied for gathering data:

1. What are the major factors affecting the effectiveness of the CBO members involved in the burnt bricks project?
2. How does the brick making project outcomes have affected the livelihood of burnt bricks makers?
3. Which raw materials are used for brick making? Are there any alternative materials for brick burning easily accessed to all community members?
4. What are the procedures applied for provision of housing micro – credit and for improving the low cost housing initiatives and the economic status of CBO members.
5. What problems does the project cause to the environment?

1.2.4 Significance of the Study

This study provided an opportunity for gathering baseline information useful for scaling up of the burnt brick projects while making use of the best practices and taking into consideration the limiting factors from the past experience. This will enable the community to use appropriate technology that is environmental friendly towards enhancing the community economic development. As well the practical experiences are crucial for making informed decisions by all the stakeholders involved.

1.2.5 Limitations of the Study

(i) Due to limited time, the study was done in short time contrary to what was ought to be done given its nature and operational steps. This being the case, the researcher couldn't reach as many stakeholders as possible whom would further enrich the study.

(ii) During data collection, some participants were still busy with farm activities, so it was hard for them to attend regularly and provide required information. Most of the time, the study schedule was postponed and thus the survey report was delayed.

(iii) Lack of funds to finance some of the planned activities and those emerged in the process that would have been better if adequate fund could be available. This actually affected the quality of the study and its information gathered.

However, the researcher contained the above limitations using his long experience, integrity and sometimes the resources available under him.

1.3. Characteristics of the Survey

The study comprised of 60 respondents, from a wide range of stakeholder groups such as government officials, other burnt brick makers and community representatives. The methodology for the study was a combination of both qualitative and quantitative methods and tools.

1.3.1 Survey Methods

1.3.1.1. Focus Group Discussion

In getting the community needs, I used the focused group method by using developed leading questions that guided me to share ideas with the community members. The FGD method was conducted in a participatory manor in which various issues were raised with the CBO members and the community. Issues were ranked and those that scored most were picked up as community felt needs. The method was also used when trying to know the type of leadership employed by the CBO and the role of local governments to assist brick makers- entrepreneurs to be a success and

during the process of identifying needs and problems in which the CBO members and some community members participated fully. The group involved five people including the village leader, a council representative, MRHP staff as well as the group members. The group's chairperson chaired the meeting that facilitated by the researcher. The researcher asked questions and the members responded where every member was given equal opportunity to participate and clarified some points where necessary.

1.3.1.2. Face to face interview.

This survey technique helped the researcher to crosscheck the responses and views given by the respondents. As some of the interviewees could not read and write, he read the questions to them and recorded their responses and clarified if their responses were correct.

At the same moment the researcher while interviewing people, observed the actual situation, environment, and changes in livelihood that has occurred as a result of the burnt brick project in the area and the rate of natural resources depletion and effects on the environment in the project area.

During baseline information collection for example, I Interviewed the Mwanza Rural Housing Program Technician Mr, C. Lukambula on burnt bricks projects and income generating groups well-being and are supervised and monitored. He gave me a brief account of the procedures that all CBOs supervised by District Community Development department and for those with income generation, environmental conservation and Technical aspect MRHP assisting them while SACCOs follow under the district Co-operative department. He further informed me that the registration was done by Community Development office.

1.3.1.3. Semi-structured interview

Semi-structured interview is a flexible kind of a questionnaire that a researcher asks respondents according to the nature and situation of discussion between the respondents and researcher.

Various questions can be asked at once without the need of repetition. This kind of survey was applied for interviewing community member and Brick makers in the area in which the Balizukwa CBO is operating. There were many questions though during the interview some skipped because had similar meaning or which has been covered in previous questions Interview guide.

1.3.2 Survey instruments/tools

The survey Instrument has various tools used to collect information such as questionnaires, interview method such as face-to-face interview, and focused group discussion. During data gathering process, the interview guide was applied to elicit information and views from respondents. Given the situation of respondents and their level of education and daily involvement, the researcher did not handle over to them free questionnaires for those who were not able to fill; instead he worked with them through focused discussion on key issues of the study.

The following tools were used to extract Primary data. Primary information are those collected by the researcher from the respondents using a questionnaire or unstructured interviews assisted by observations. Various methods of collecting primary data were used at different occasions depending on the need and convenience of both the respondents and researcher.

1.3.3 Sample selection procedure

1.3.3.1. Sample size and selection

A probability sample is one in which each person in the population has an equal chance of being selected. The resulting sample is said to be representative. In this stratified sampling have been used to get all 15 CBO members involved and increase sample size and representation from each group. Simple random sampling used to chances give equal to other members of the control groups to participate in the survey. The CBO population was small to be valid for drawing sound generalized conclusions. Hence, I decided to increase it by selecting a random sample from the entire population.

This was done purposefully in order to have reliable information regarding the problem under study. However the survey involved 60 participants of whom 15 from CBO members, 10 ward and district officials, and 35 community members were chosen through non-random procedures (Non probability or stratified random sampling). The rest 35 respondents were selected from among community members using probability-sampling procedures.

1.3.3.2. Stratified random sampling:

Stratified random sampling was chosen and put into use in regards to the nature of the sample size. Generally speaking dealing with only the population of the survey constituting just 15 burnt bricks entrepreneurs out of about 12104 of the village population makes it for the sample to be too small and real un- reliable to produce scientifically generalize sound conclusions over the existing causal and effect relationship between the tested variables. To this point it is therefore justified to increase the sample size out side the Organization. However, the survey was identified to be cross-sectional because it involved 100% of the CBO population as respondents and active participants in the project activities implementation.

By using of sample frame selection technique the population was sub-divided into sub- groups or sub-sets. Then, simple random selection procedures were used to get a given number of respondents from each group of respondents depending on the type of information needed. Purposeful sampling procedures were undertaken based on the prevailed state of affair as depicted below;

(i) The groups here in referred were considered to contain some specific information needed as far as housing micro- enterprise concerns. Some are key persons who supervise appropriate housing programs at district and Commercial Banks like NMB- Micro-credit scheme in charge/ Bank Manager.

(ii)To increase sample size which is very important to the precision and accuracy of the survey findings validity.

(iii) The groups chosen had to act as control elements to be able to compare and contrast CBO members' responses.

(iv) Stratified random sampling has proved to be of high quality more precise than simple random sampling technique.

(v) It permits the researcher to choose a sample that represents various groups and patterns of characteristics in the desired proportions.

1.3.3.3. Simple random sampling:

This method in the context of this survey was applied to get a representative sample from each sub- set of the sample frame. Those respondents chosen to increase the sample size apart from the CBO members acts as control elements in the case of true experiments as it is in the case of hard science experiments. This is done purposefully so as to test the validity of developed hypotheses in its broader context in relation to the theory of housing micro-enterprise in Tanzania.

1.3.4. Psychometrics characteristics

The psychometrics characteristics enabled the researcher to determine qualities of a good survey and to quantify the precision of the measurement of qualitative concepts, such as program beneficiary satisfaction. To ensure reliability of data, the following ways are used:

i. Intra observer measures the suitability of response over time in the same individual respondent. To ensure that the tool was reliable and it composed of set questions, a respondent was interviewed and again after one week the same respondent was asked the same question but rephrased in order to find out if the information collected was the same.

ii. Interobserver was used; here questions were formulated and asked to two different respondents at different times to check if the responses collected were the same.

1.3.4.1 Validity

To ensure validity the researcher used the following:

1. Face validity to measure causal review of how good an item or group of items appears. I assessed individuals with no training in the subject matter and provide the same information.
2. Content, formal expert review of how good an item or series of items appear.
3. I used this to assess the individuals with knowledge in some aspect of the subject under study and get some required information.

1.3.4.2. Internal validity

In order to ensure both internal and external validity was first to ask myself This question; " Am' I real tracking on the right truck in asking the type of questions or I am out of the point" Simply I had to make self evaluation before evaluating the interrelationship between one variable and another in the field during data collection

1.3.4.3. External validity:

External validity addresses the issue of being able to generalize the results of your study to other times, places, and persons. Here in it is ensured because before using the questionnaire I have asked other professional in the field and also some key informants among the chosen sample frame to see how common the questions are understood.

1.3.5. Scale:

Different scales were used to measure the scores of the questions asked. This entails the message in other word content is the topic of study. The rating/ranking scale was used where the respondents were asked to rank their responses according to degree and the seriousness of the problem towards hindering housing micro-enterprises development. For example, Lack of capital hinders the

development of housing micro-enterprise. Ranking 1.higher, 2.high, 3.medium, and 4.low were applied to determine the rating scale.

Ordinal Scale: These are responses that need the respondent to put the answers to the questions asked in a rank order. This means that the most important one or relevant to the survey problem could be rated number 1; the next number 2; and so on up to the last option available on the list. Example, problems hinders burnt bricks project development and growth in Misungwi ward are tested by responding to the following statement; " inadequate materials for burning bricks is among the main factors contributing to the problems facing burnt brick makers and housing micro-enterprises in Misungwi ward. High, Medium, or Low, such rating scale would provide an ordinal measurement in this particular survey. On the other hand, if the measure of individual respondent whether strongly agrees with this statement is rated using (agree, disagree, or strongly disagree). In the two above sited examples if applied as is applied in the questionnaire of this survey indicate that the evaluation have used an ordinal measure.

Interval scale: An interval scale is one in which adjoining units on the scale are always equidistant from each other, no matter where they are on the scale. When these measurements are used choices and distances between numbers have a real meaning. For example; amount of loans provided to clients by a MRHP Fund may be placed in intervals. Such as; Tshs 500,000/= difference between Tshs 500,000/= and Tshs. 400,000/= per year means the same as the difference between Tshs.700,000/= and Tshs.800,000/= per year. Here what matters is existence of similar interval of difference between one figure and the other regardless the total sum.

1.3.5.1. How Study questions were weighted:

The questions were composed in such way that they answered directly the research problem and they looked for information that relates to survey objectives. The system used to compose questions ensured that various scale measure were used such as; rating, check list as High,

Medium, and Low or agree, disagree, or strongly disagree to enable the evaluator to compare among various tested phenomenon relationship to research problem.

1.3.5.2. Reliability of Research instruments

This is a statistical measure of the reproducibility of the data gathered by the survey instrument. In survey reliability used to describe the ability of the tools used being able to observe measure and examine the phenomenon under the study. The question reads that: How does lack of fuel wood affects small-scale burnt brick development in Misungwi Village?

If the total is reliable the same question can be used to test the effect of the same variable around the project area. This implies that wherever similar phenomena are measured whether being different sample in same population or another population; the results should remain the same.

Each group studied is independent of the other, the assumption before the treatment begins is that each group is equivalent to the other and repeated measure comparisons designs is used for example, pre-test, post design, or pre-test intervention, post test design.

1.3.5.3 Stability:

Stability of a measure ensures that research results obtained represent; activities, thoughts, Views, opinions, beliefs and knowledge of the real world (Class handout, 2006). Like reliability, also stability of a tool means that particular tool has been pre-tested before actual use.

All types of guide interview to collect information from Balizukwa housing micro-enterprise and other strata of the sample, each question in that tool is proved to produce common responses as pilot test confirmed. In establishing stability of researcher's tools of data collection a single question for example "what is your occupation" was asked to more than one respondent in one category of the respondents in the first sample and for the second time the same question was asked to another group. The response in both cases indicated common understanding that it refers to different occupation of the respondent.

1.3.6 Equivalence:

In order to establish equivalence in my survey design the following points were considered in the subsequent planning processes prior to actual data collection exercise;

Each group of variables studied is independent of the other, the plan of expected results will be concerned with results of a group subjects, I made a pre- assumption before the treatment begins that, each group studied is equivalent to the other, and that, repeated measure comparisons design is made.

1.4. Data processing and analysis:

Three main techniques of data processing after being organized that have been used to present, analyze and interpret information in the text. Those methods are;

(i). **SPSS**

This was used to code the data group into frequencies, analyze and finally interpret in terms of bar chart graphs, which have been applied in this text since the first Chapter in problem identification.

(ii) Comparison groups:

These have been used to compare and contrast responses from CBO members against control groups so as to have generalized valid conclusions over studied phenomena.

(iii)Percentages and Ratios:

This method have been used to indicate levels of feelings of participants over a certain variable tested in relation to its negative effect to the survival rate of housing micro- entrepreneurs.

Before conducting this survey, I gathered the baseline information as secondary data that later helped me to know the prevailing situation in the community and I was able to select what were the most pressing issues to be shared with the respondents in the project area.

1. 5. Presentation and Discussion:

The actual exercise of the community needs assessment was planed and accomplished through participatory approaches. The planning session brought together some community members, who sat together in a planning panel. I initiated the planning process, which was done using Participatory Rural appraisal technique. The benefit of using this method is that every participant gets an equal chance of giving her or his views about what are the basic needs for brick makers and need for prosperity in their business.

The community members through voting approved the identified needs. This needs assessment includes both the Balizukwa CBO members and six individuals within the brick making community who actively participated in the process of needs assessments. The forum included local leaders such as the Ward executive officers and Village executive officers under the supervision of the MRHP. As it was not necessary to involve every member of the community, but a village assembly was convened and the target community was just the Balizukwa CBO with 15 members. The entire community members benefited directly from actual implementation of the research project.

In summary after all the process, the identified community needs based on the existing situation were as follows:

i. The community suffers from inadequate raw materials for burning of bricks in their areas. Thus they build temporary houses using tree poles, mud and thatched grass. Burnt bricks and cements seem to be expensive. The area is within the semi –arid zone (between 500 mmm-700 mm), which receives inadequate bimodal rains. Thus facing unfavourable agricultural climate, poor vegetation cover and trees for use as raw materials for brick making industry.

ii. There is persistent income poverty among the community members as they rely upon farming activities to earn their annual income. They have limited capital to run smoothly their housing micro-enterprises.

iii. The community members are living in extended families with big family size that escalates their poverty magnitude especially in hard times of severe drought.

iv. Community needed comes true because of members' low levels of education. Most of the young population holds primary education; the women (45%) and some older people had never attended formal education. In this sense, they lack basic education coupled with entrepreneurship skills to manage their micro- enterprises and bricks making projects.

Based on the above situation, the community needs identified included:

(i) To have reliable source of income and working capital to run the burnt brick project smoothly (access to credit facilities).

(ii) Availability of adequate bricks burning materials such as fuel wood, rice husks.

(iii) The CBO members to be exposed to entrepreneurship skills.

(iv) To secure permanent sites, shelter for brick making industry.

(v) Community awareness on using burnt brick product.

Together with my participation at the initial formulation stage of the BALIZUKWA CBO being a community development specialist, I selected this project as case study to hold my survey. This represents the entire community and those involved in burnt brick making.

1.6. Findings and Analysis of the Study:

This section provides the findings and results of the survey, it provides an analysis based on the specific issues addressed of the study in responding to the respondents' views and literature review including policies abiding these issues. The methods used to analyses these data were excel and Statistical Package for Social Scientists (SPSS), which are key technique in both quantitative and qualitative research.

1.6.1. Respondent Characteristics and Groupings:

However during the actual survey 60 respondents identified using stratified random sampling method to assess whether the problems identified by the CBOs were the real problems that they considered to be the problems. These problems are hindering the housing micro-enterprises in Misungwi village especially in initiating burnt bricks businesses and their prosperity of the already established businesses. People were interviewed, among these 15 were CBO members, from the CBO members 10 (67%) are women and 5(33%) are men. 10 respondents consulted were district officials included government and non- government organization leaders 4(40%), were women 6 (60%) were men, 35 community members were interviewed and from them 5(14%) were women and 30(86%) were men.

The age distribution and education status of respondents consulted during the survey depict the following features:

Table No- I Age and Education Status of Respondents.

Age distribution			Respondents' education levels			
Age group	Number	%	Non formal	Primary	Secondary	Higher
18-30 yrs	20	33.3	-	6	14	-
31-43yrs	25	41.7	2	11	10	2
44-56 yrs	9	15	2	2	2	3
57 +above	6	10	3	2	1	-
Total	60	100	7(11.7%)	21(35%)	27(45%)	5(8.3%)

Source: Compiled by a researcher

From the above table, its shows that the majority of the respondents had secondary education 45% and primary education (35%), the few had non-formal education especially those who never had primary education. those with higher level of education preferably post secondary level in colleges and universities were 5(8.3%). Therefore, based on age group distribution and their levels of

education the questions asked on the questionnaires and key issues addressed in the study received positive response as the majority had an understanding and reasonable level of education to grasp issues in research. Indeed, there was a fair communication between the researchers and the interviewees in the field.

The respondents were grouped according to age; Gender, Marital status; Education occupational and problems as follows.

Problems Addressed:

1. Inadequate raw materials for burning Bricks have been the major problems hindering Balizukwa community based organization activities development and growth.
2. Lack of finance to the Business is one of the main factors that hinder the development and growth of Balizukwa Burnt bricks project.
3. Lack of entrepreneurship abilities /knowledge and skills among CBO members contributes to low rate of the business.

1.6.2 Results based on Statistical Analysis:

1.6.2.1 Respondents by age:

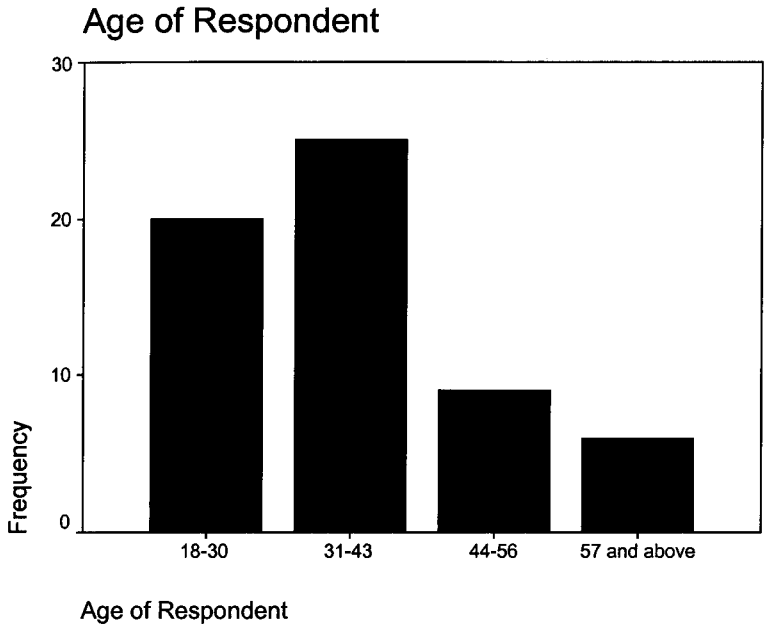
All 60 respondents interviewed emanate from the sample population of the research sample had people of different age group from young, middle age, adults and eldest. The following are the age groupings of respondents:

i. 20 (33%) Respondents aged 18-30 years most of them were students.

ii. 25 (41.7%) respondent aged 31-43 year were active mature population, most of them were CBO member, primary school Teachers and some mature student in colleges.

iii. 9 (15%) Interviewed respondent were aged within 44-56 years, while 6 (10%) of respondent were elder population most of them are community leaders senior and retired public officers.

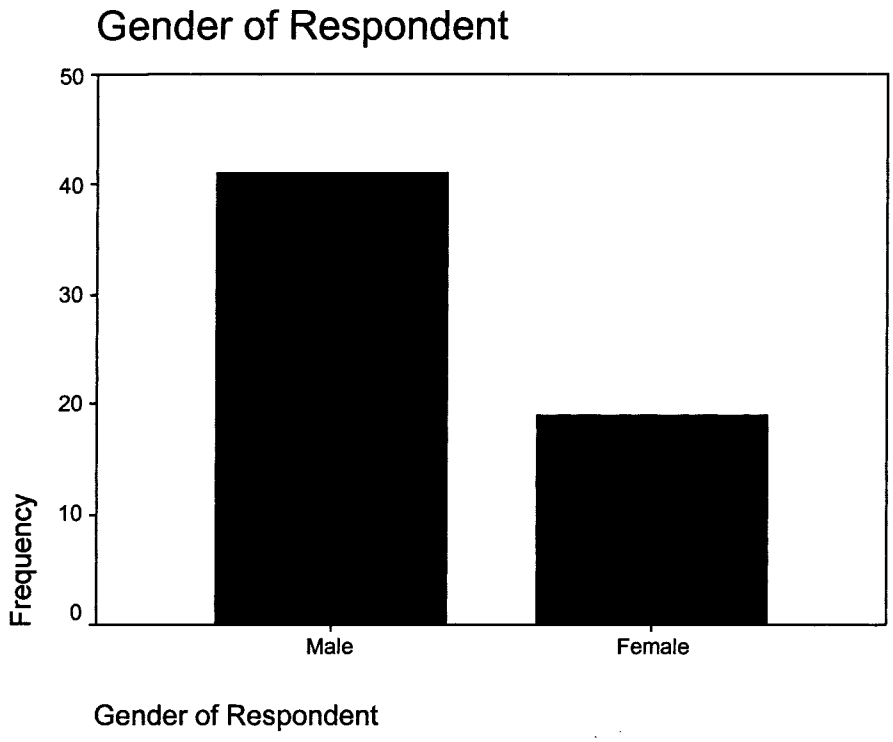
The following Bar-Chart No-1 explains the age of respondents of the study.



1.6.2.2 Gender of Respondents:

Gender relation of respondent was vital in collecting reliable information representing their sex grouping of 60 respondent interviewed in this study 41(68.3%) were males and 19(31.7%) were female. This entails that male than women dominated the study. One of the reasons is that men are more directly dealing with Burnt bricks activities than women. Also more men than women formulated the community committees were consulted. This indicates that burnt brick industry and its associated Micro-Enterprises are gender imbalance as shown in the chart below (chart No.1).

The Following Bar Chart No -2 Gives The Gender Relations Of Respondents.

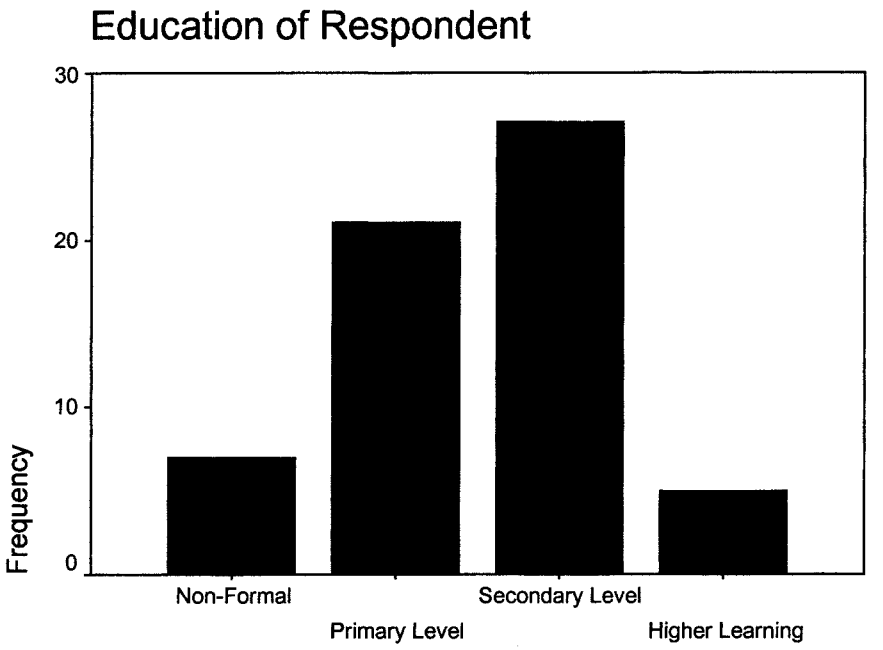


In addition to gender the marital status of the respondents was mixed as 41(68.3%) were married couples, 16(26.7%) were single mostly young and widow population, and 4(5%) were divorced.

1.6.2.3. Education of Respondents:

The majority of respondents have secondary education 27(45%) followed by 21(35%) with primary education. The next grouping 7(11%) of respondents had never attended formal education, while 5(8.3%) had higher learning education and most of them are district officials and retired citizens. The level of education among respondents simplified my work of data collection because most of the interviewees were able to read, write and positively respond to questions asked.

The Following Bar-Chart No-3. Reveals the Level of Education amongst Respondents.

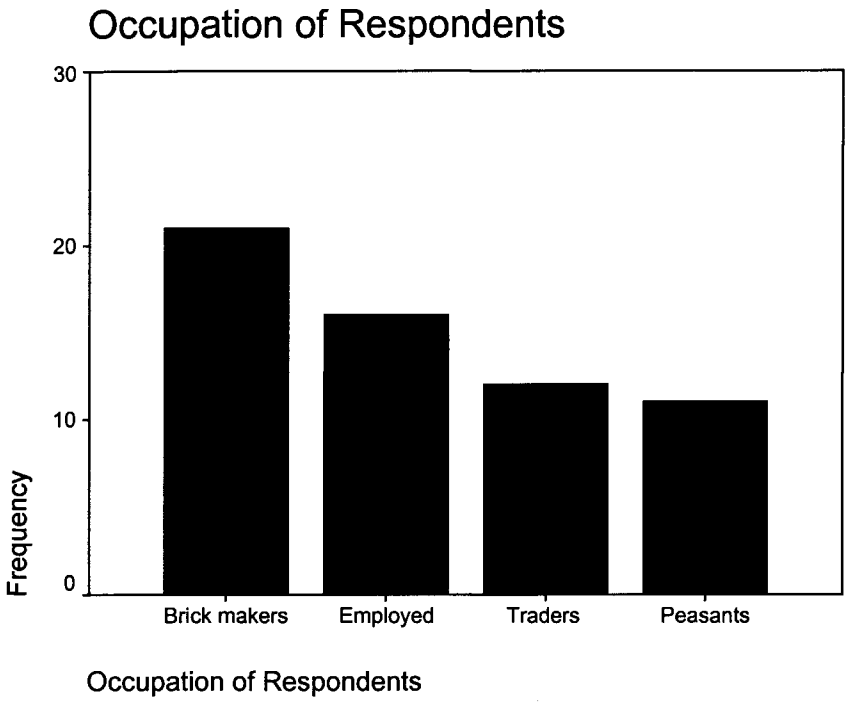


Education of Respondent

1.6.2.4. Occupation of Respondents:

Since this study was conducted in a rural based Environment, various occupations of respondents correlated with the nature of employment opportunities available in the rural area. Based on this study, 21(35%) were mainly brick-makers though partially were engaged in farming activities as peasants. Similarly, 16(26.7%) were public servants in district, colleges, primary schools and those in non -government organizations. 12(20%) were traders who mostly were key buyers of the bricks for constructing houses and selling them to nearby institutions in demand of large quantity of bunt bricks such as schools etc. Also, 11(18.3%) are peasants who typically in rural areas who also assist in production of raw materials for bricks burning such as rice husks, fuel wood etc.

Bar-Chart No-4 Represents the Occupation of Respondents



1.7. Summary of Study Findings and Analysis:

In summary, after a thorough analysis of the above results and findings, the researcher and his assistants summarized the three key study factors affecting the beneficiaries in the burnt brick project's effectiveness, production, and capacity and ultimately lead to poor livelihoods are the follows:

1.7.1 Raw materials:

As explained in the literature review, raw material is an essential input in the production of bunt bricks in the vicinity, without which the low cost housing technology using burnt bricks cannot be disseminated. Therefore, throughout the survey in the sampled population, about 37 (61.7%) of the respondents interviewed revealed that CBO members involved in burnt bricks project do not have sufficient raw materials for burning of bricks.

They explained reasons for lack of raw materials include their unfavorable location in semi-arid where there is insufficient rainfall. They also explained that there is high demand of brick making materials such as fuel wood and rice husks, because people in the area tend to burn bulky kilns of bricks for building houses. The available fuel wood reserves also used as fuel energy for cooking at household level in rural community, where electricity connection is not available. They also raised concern that alternative fuel energy like kerosene and electricity are very expensive.

1.7.2. Lack of Capital:

Small scale Burnt brick makers need capital to expand production of bricks on a large scale. When respondents asked on the need of capital, (14) 23.3 % of the respondents indicated the problem of lack of capital to run the bunt brick activities. They said that lack of capital is attributed to lack of reliable financial institutions, lack of collateral to mortgage for loans before getting loans. They operate their business using their own capital mobilized from among themselves and they operate revolving funds that cannot be sufficient to run their business effectively.

In view of the above finding, it was revealed that out of 60 respondents interviewed 14 respondents' equals to 23.3% responds positively to the question that the lack of capital hinders the promotion of the housing micro-enterprises development.

Furthermore, the table below (No.2) indicates that out of 48 groups applied loan from MRHP only 19 groups managed to get loan, which is 39.5%. This implies that there is no enough financial institution that can help and support micro-credit for small-micro enterprises at the area. The situation proves that housing micro credit is generally constrained by lack of capital.

Table 2: Housing micro-enterprise groups loans provision from MRHP (2002- 2005)

Year	Number of groups	Groups given loans (Nos)	Percentage %	Groups not given loans	Percentage %
2002	9	3	6.25	6	12.5
2003	12	4	8.3	8	16.7
2004	12	8	16.7	4	8.3
2005	15	4	8.3	11	23
Total	48	19	39.5	29	60.5

SOURCE: MRHP Annual reports: 2005.

1.7.3. Entrepreneurship skills and Knowledge:

Promotion of burnt bricks projects, as key income generation and employment creation activity needs a comprehensive knowledge and skills among stakeholders in entrepreneurship. Some of the respondents had received a short time training on entrepreneurship skills, which has helped them to establish and run businesses on a profit basis. Of the interviewed, a total of 16 have recently received entrepreneurship skills, most of them were from CBOs members and other micro-entrepreneurs dealing with burnt bricks making and selling. Those who lacked entrepreneurship skills were likely to operate their business on loss and had minimal chances to prosper further due weak management skills.

The analysis here is that possession of entrepreneurship skills corresponds to individuals' capability and level of education he/she holds. Those with basic education can be more trainable and able to adopt entrepreneurship skills than those without formal education, because they can be hardly trained. All groups of respondent agreed the importance of having business skills including appropriate technology all of which are an integral part of the entrepreneurship skills.

Generally, the highest level of education possessed by most CBOs members is hardly primary education. In this case, it is obvious that they cannot run their business profitably / successfully, that they cant break-even and find reliable market and communicate broadly to search for the market.

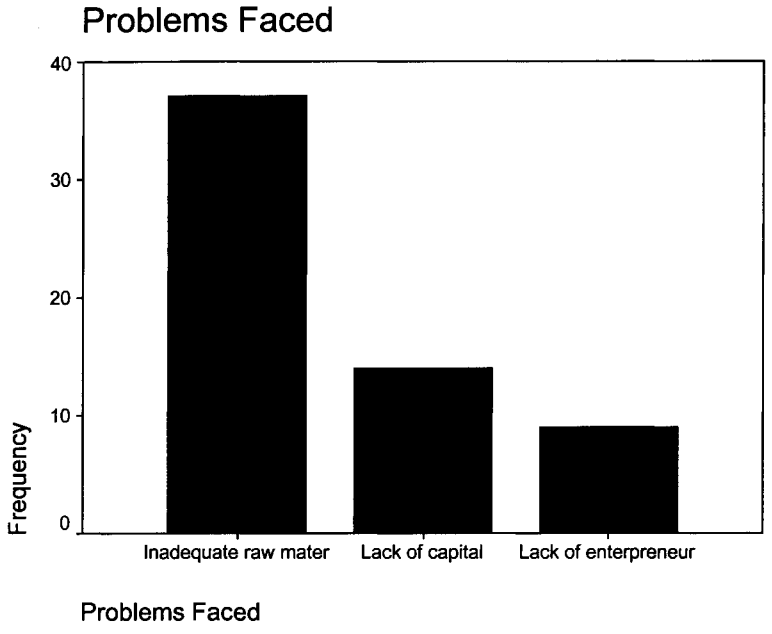
Table 3: Lack of entrepreneurship skills and knowledge

Designation.	Number of respondents	Respondents agreed	Percentage %	Respondents Disagreed.	Percentage %
MRHP	3	1	1.6	2	3.3
WARD & Village Leaders	3	1	1.6	2	3.3
Balizukwa CBO Members	15	2	3.3	13	21.6
Misungwi district Council	4	1	1.6	3	5
Community Members	35	4	7	31	52
Total:	60	9	15	51	85

Source: Researcher's Findings.

From the findings out of 60 respondents interviewed 51 respondents, which is 85% responds to the question positively. The researcher's findings from different sample population shows that lack of entrepreneurship knowledge and skill, contributes on hindering housing micro-entrepreneurships development for Balizukwa CBO.

Bar-Chart No -5 Describe Major Problems Hinders the Burnt Bricks Project.



1.8. Conclusion:

In view of the above findings and their analysis, this section concludes that three factors were identified as hindering blocks in the burnt brick industry. These are inadequate raw materials (natural resources energy), lack of capital and entrepreneurship skills to promote the housing micro – enterprises development. These findings provide a base to provide appropriate recommendations of the study, which if applied can help the burnt brick project, improve human settlement and the people livelihood in rural area as a strategy towards attaining poverty reduction.

1.9. Implications (Meaning) of the Results:

The results implies that the inadequate raw materials for brick burning to run the project did not stand as a single problem itself but there are many affiliated reasons which causes that results.

Financial status gives alternatives on input purchases like raw materials for making and burning mud bricks. Since finance is the problem that reduces the power to train, purchase; create awareness, to boost the expectation of enhancing markets for the product.

The lack of knowledge and skills obviously affect the quality of the products, normally becomes of poor quality and affected with unreliable market of products. The results also implies that since the community not aware on using the product output then it could not be easy to get reliable and sustainable market for the said product.

1.9.1 Call for further research:

Therefore given the broad spectrum of topic in the burnt brick technology and the limitations of time and other financial resources faced by the researcher. The study has given another ample avenue for conducting further research in the brick making enterprises since most of the key issues were not fully explored in this study which have widened the need for further comprehensive study backed with clear need assessment of the beneficiaries housing micro enterprises and burnt bricks interventions being direct mechanisms toward poverty reduction and improving people's livelihoods in rural area.

CHAPTER TWO

PROBLEM IDENTIFICATION

Problem identification has been the key community participatory planning process to identify the problems affecting the community. Regarding with the burnt brick project and BALIZUKWA CBO, the problem identification was conducted as a later process followed the community need assessment, which revealed the needs and gaps. Out of the CNA, the problems were ranked which most needed attention emanating from the problem statement needed solutions using the available resources.

2.1. Problem Statement:

Poverty for the community in the project area is contributed by a number of factors, among them being: the inability of many people to build improved houses that are conducive to human habitation. As a result the majority population in rural areas build temporary houses using tree poles, mud and roofed with grasses (thatched houses). This situation endangers the surrounding environment and escalates people's poverty.

2.2. Previous Initiatives:

Given the poverty situation in the community several initiatives had been taken by the Government since in 1976, when introduced a better house campaign the aims included to increase the durability of dwelling units by building houses with improved and longer lasting local readily available building materials (Kulaba, 1979) and the community members through NGOs which have supported them in the formulation of CBOs at the grassroots. In Misungwi district, since the establishment of the MRHP in early 1990s, several CBOs with the focus of disseminating burnt bricks technology were established and imparted with various training, skills on the appropriate housing technologies, environmental conservation and micro-enterprises skills.

Among many CBOs, Balizukwa has been the key player in promoting burnt bricks technology as a means towards environmental conservation, income generation and improved habitat of the rural people.

The establishment of Balizukwa CBO was expected to increase people's income through income generating activities as a fight against poverty. However with all these CBOs the standard of living of the people have not yet improved, some of the reasons being lack of working resources (capital, materials for burning bricks and entrepreneurship skill). As a result of adverse weather condition there had been low rainfall intensity (drought) that resisted the growth of natural vegetation cover and paddy production, which are the major source of energy for rice husks and fuel wood used for making burnt bricks. From this reason, CBOs members were not being able to progress due to lack of materials for burning bricks. As a result they have been cutting trees for the same purpose that again has accelerated the deforestation process in the area. All these led to air pollution, excessive tree cutting, soil erosion, and depletion of natural resources and loss of biodiversity as well as land degradation. These effects have a negative effect in the general agricultural production of the rural poor who most depends on farming.

As a Community Development practitioner, my involvement in research in CBOs, dealing with burnt bricks activities has broadened my work experience. These activities are affected by lack of capital, raw materials, appropriate skills and technology, among others. The study focuses on assessing the contribution of burnt bricks project in environmental conservation and people's livelihood in rural areas. In this study the researcher would like to see the key factors contributing to the success and failure of the burnt brick project in conserving environment and sustaining people's life. Through the field survey, researcher will reveal some findings necessary for tackling problems related to the enhancement of the brick-making project and thus fill in the gaps in primary research,

which have driven me to select this research topic, a field which is quite relevant to the current community development initiatives.

2.3. Target Communities:

This project benefits all members of Missungwi village under the organization Balizukwa CBO. The 15 members of the Balizukwa represent the community problem in Missungwi village, as it is among many similar CBOs in the village involved in making burnt bricks and selling. Through these project the surrounding community also benefited from buying the burnt bricks and building permanent houses at low costs, not only that the technology for making burnt bricks had been disseminated to the entire community in the Missungwi village and its surrounding community, which now had the ability to make burnt bricks by their own. Although the project beneficiaries are constrained with the shortage of natural resources, fuel wood and rice husks to expand the burnt brick project especially in an extended dry seasons followed with poor harvest, bricks burning materials can hardly be available.

2.4. Stakeholders:

Apart from Balizukwa CBO there are other projects dealing with bricks making and / or housing micro-enter prices. The major organization involved in similar activities is Mwanza Rural Housing Project. This organization's concern is to improve the standard of living of the people through improved houses.

In so doing, the project train the organized people in groups how to make an improved house through the local available building materials Since at the project area there is a high house demand then the project also can help people who needs houses in advises. Misungwi districts council is another stakeholder who coordinating and advisory role on behalf of the government to oversee all development activities in the district, in which the Balizukwa CBO is one of them.

Its major role is to supervise community micro-enterprises by giving them financial support, enhancing their entrepreneurs' skills and capacities to mobilize and manage projects loan (credit) as well as grants from various financial institutions and non-government institutions interested in promoting burnt brick activities. The Community Development Technical Training Institute (CDTTI) in Misungwi also had a role to provide technical advice on appropriate technology and burnt bricks making skills including project Management at different districts, MRHP and for the various CBOs including the Balizukwa Burnt Bricks Project. The financial institution like NMB provides loans to community including Balizukwa CBO. However Community members concern is to provide security and enable smooth running of the project. (See stakeholders analysis attachment No VI.)

2.5 Project's Goal:

To have people's improved livelihood and conserved environment through promoting burnt bricks projects in Missungwi rural area. This goal leads towards the improvement of the standard living of the people through raising people's income; conserve the environment and the general widespread application of an appropriate technology in burnt brick industry. The burnt brick project is supervised by the CBO Balizukwa, which acts as a model to realize the envisaged goal. This also is inline with the Tanzania Rural Development Policy of year 2003 and Tanzania Development vision of 2025, which clearly aim at attaining good life without poverty. Therefore, assessing the contribution of the burnt brick project towards the improvements of the people's livelihood and environment conservation signifies the realization of the project goal above.

2.5.1 Project's Objective:

Since the population in Misungwi rural areas is constrained with extreme poverty attributed to poor environment and low standard of living, the burnt bricks project was designed to countercheck the situation and thus improve the people's living standard using the income generated through selling burnt bricks and by building improved houses for better habitation.

2.5.2 Project's Specific Objectives:

In order to achieve the project goal of improving livelihoods, the following objectives are to be met:

(i) To contribute towards reducing income poverty through establishing burnt bricks project by using locally available materials and application of appropriate technologies.

(ii) To enhance the capacity of the CBOs and the community in 5 villages of Misungwi ward on the entrepreneurship skills, housing micro-enterprises and brick making knowledge.

The following prerequisites are necessary for the success of project.

Project plan and implementation reports, Community Stakeholders analysis and project situational analysis reports, availability of fund to conduct the study, availability of raw materials for burnt brick that is rice husks from paddy, firewood, saw dust {timber wastes} these are materials used to burn bricks, availability of capital to buy the raw materials is vital for the success of the project, entrepreneurship skills and knowledge applied under the CBOs members to promote brick making and micro-enterprises activities

2.6. Host Organization:

The project is hosted by the Balizukwa CBO whose vision is to see communities of Misungwi ward with sustainable human settlement, conserved environment and without poverty.

Mission

Balizukwa CBO is committed to enable communities of Misungwi ward to have better habitat and conserved environment through increased production of appropriate and locally available building materials so as to improve household's living standards and income.

Apart from being hosted by Balizukwa CBO, the project also worked with other like-minded organizations/institutions that provided valuable support and inputs to this project. These organizations acted to link, facilitate and coordinate other small-scale projects. Among them is the Mwanza Rural Housing Programme (MRHP). This is a non – government organization originally dealt with Nyumba Bora aspect (Low cost housing and its environment) based at Missungwi District headquarters. The organization is providing managerial expertise and advice on how the project could go about. It also provides technical assistance through technicians as well as micro – enterprises skills.

Another organization is the Misungwi districts council whose coordinating and advisory role on behalf of the government to oversee all development activities in the district, in which the Balizukwa CBO is one of them. Its major role is to supervise community micro-enterprises by giving them financial support, enhancing their entrepreneurs' skills and capacities to mobilize and manage projects loan (credit) as well as grants from various financial institutions and non-government institutions interested in promoting burnt brick activities. Furthermore, the Community Development Technical Training Institute (CDTTI) in Misungwi also had a role to provide technical advice on appropriate technology and burnt bricks making skills including project Management at different districts, MRHP and for the various CBOs including the Balizukwa Burnt Bricks Project.

2.6.1 Researcher's Role in the Project:

Researcher's job description in the project was to advise the CBO members on how to go about in their daily activities that would enable them realize their objectives. My responsibilities were to make sure that the project reaches the designed goal and objectives. The researcher also assessed the key factors affecting burnt brick makers under the Balizukwa project.

The involvement of assessing these factors provides an avenue to advise alternative actions if applied would improve the production capacity of the Burnt brick makers and fasten the widespread

building of many permanent houses using low cost building materials in the area, like burnt bricks and at the same time use technologies which are friendly to the environment.

The researcher's responsibility was to conduct a survey in a systematic way using the methodology chosen for gathering information at the community level, at project level and stakeholders who were involved in the burnt brick making industry. All these process geared toward achieving the study objectives and come out with the key research findings and their subsequent analysis of the study. Through questionnaire and interview guide, the stakeholders provided relevant information based on questions asked to them reflecting the key factors affecting their endeavours in the low cost housing, environmental conservation, income generation and the whole aspects of poverty reduction and housing micro- enterprises.

CHAPTER THREE:

LITERATURE REVIEW

This chapter introduces various concepts and theories underpinning the topic of research. It includes theoretical literature, empirical literature and policy reviews to which all aspects of research under review are included. The literature review helps the researcher to collect relevant information based on key issues addressed and reviewed. The researcher presents the assumption prior developed which was used to collect and verify data. The interest here is to compare information and identify gaps which would eventually justify the study.

3:1 Balizukwa –CBO:

BALIZUKWA is local name in the sukuma language, which denotes "remembrance" of something happened in the past. The name was given to the community-based organization dealing with production and selling burnt brick project. Initially, the CBO's members decided to run this business as an income generation project geared to improve their living standards. The choice of the project relied upon on the prevailing situation in the project area (Missungwi) that is densely populated constrained with, extreme poverty, poor environment and poor houses. Their houses are built of mud blocks or tree poles roofed with grasses, weak foundation using poor locally available materials which in shortens the life span of most houses in the rural area.

3.2. Burnt bricks:

Burnt bricks are oldest building-materials in use till today; they had been in use since more than fifty centuries ago from the roman empires and in the construction of the Egyptian pyramids. Similarly, citing an example of burnt brick in Tanzania, the Roman missionaries from their inception they introduced the burnt brick technology and their earliest structures for churches and schools were constructed by burnt bricks which can be still seen in most places of our country.

Hingira in his research study underscores that burnt clay bricks are considered to be one of the permanent and strong building materials towards achieving long technical, economical and social lifetime (Hingira, 1986). Technologically, burnt brick are most suited with local environment and have often been presented as a panacea for solving economic, social and environmental problems (Jeans et al., 1990). They contribute to production, while at the same time providing the population with inexpensive goods, which are more specific at the enterprise level [ibid].

Also, most burnt brick projects are expected to achieve the derived ideological goals. In the field of micro-level service- oriented operations it should improve the quality of life and strengthen the power of rural micro entrepreneur and whole society. The Brick making activity have turned to be common income generation enterprise for the majority residents in the district. However, at the present brick making is not really done as a professional and trade enterprise. Nowadays these products have become very expensive because of the shortage of wood fuel energy and the hardship of firing a brick kiln. Owing to the recent civilization, brick burning is important in the community, as most people are demanding permanent houses as civilized citizen. This pace of civilization and development has increased the demand of burnt bricks as reliable and suitable low cost building materials.

Burnt bricks are made of clay soils, which are readily available within the area. Despite the availability of clay soil within peoples reach, the production of burnt bricks has not quickly widespread to most poor people in the rural areas due to inadequate fuel wood attributed to high rate of natural forest depletion (deforestation) and semi-arid rainfall pattern in the area. As a result of shortage of raw materials for burning bricks, brick makers and bricks- sellers tend to sell them at very high commercial value (high price) that is not manageable by the majority poor rural population. This cause them to remain in temporally houses, high rate of desertification leads to poor agricultural product and low income all these factors perpetuate their poor standard of living.

In this regard, the researcher aims at assessing the burnt brick and its contribution to the people's well-being and environmental conservation.

3.3 The Theoretical Literature:

This study falls under the key theories of environment conservation and people's livelihood (poverty). Based on the topic of research the following concepts are defined:

A burnt brick is made up of clay soil burned used firewood or rice husks and are used for building of the permanent house. Before the nineties the use of burnt bricks was discouraged in Tanzania due to the increasing scarcity of fuel wood. Since 1992, MRHP has been encouraging the use of rice husks and other agro-waste as alternatives to fire bricks. But also, cotton and coffee husks could be used as environmentally sound as fuel energy for the brick burning kilns in Tanzania.

Apart from avoiding deforestation, the burnt brick technique is meant to reduce the waste materials generated by agricultural activities. Burnt bricks are the low –cost and affordable building materials that are strong and of quality in nature. Its testing is easy using the available soils to optimise the quality of burnt bricks.

Brick firing is a technique that is practiced all over the world, for high medium and the low-income families (Rhodes, 1968). In recent years, these products have become more and more expensive and builders and architect have been looking for other solutions. Owners of brick making yards have also been looking for new, alternative solution to the problems they are facing especially in addressing the shortage of firewood in the community.

3.3.1. Project:

A project is a "temporary endeavour undertaken to create a unique product or service. Temporary means that the project has an end date. Unique means that the projects end result is different than the results of other functions of the organization" [http://) en.wikipedia.org/wiki/project]. Similarly, project is a planning undertaking designed to achieve certain specific objectives within a given

budget and within a specified period of time. Is the investment of capital is a time bound intervention to creative assets?

3.3.2. Environment:

According to Ffolliott and Thames (1983, p.14) defined the term environment as one refers "collectively to the biological and physical surroundings of plants, animals and human". The environment includes cultural, social, economic and legal aspects that must be considered when planning found small-scale forestry projects" (ibid).

According to the Collins concise dictionary (1990, p.374) defines environment as an external conditions or surroundings. It entails in totality of all things that surrounds living things. However, the natural resource as an integral part of the environment supplies environment goods and services. On environment and technological grounds, burnt bricks are expected to achieve derived ideological goals, improve the quality of life and strengthen the power of rural income-earner and whole society.

3.3.3. Micro-Enterprise Theory:

The theory based on small business of individual or group that start with small capital to run its business at hand. The loaning strategy to enhance small micro –enterprise development is through affordable credit or loan schemes to realize profit.

Individuals or groups loaned money after being trained and closely supervised. In USA this formula has prove to be a success. For example, many individuals have borrowed at a range of U$ 50 to U$ 500 for equipment or raw materials [www. fdic .gov /consumer /micro –enter /Intro.(html)]

Small entrepreneurs see themselves as confronted with a set of bottlenecks, constraining their income generation, stability and dynamics. The level of human resources and technology is relatively low, leading to low-quality products and low productivity. The limited potential for capital accumulation leads to a low level of collateral which, given the present policies of financial institutions, causes difficulties in obtaining credit for investment purposes [Zoomers, 1993].

3.3.4 .How Micro Enterprises Function In USA:

The federal government recognition and support of the micro - enterprise model has helped to accelerate the growth of micro –enterprise programs in USA Agencies have been able to assist individual through community-based organizations that provide micro loans and training to micro entrepreneurs. Federal Agencies forming the inter agency work group on micro –enterprise development, encourage the continued development of micro- enterprise in America through policy making support technical and funding for micro enterprise programs (dca internet @fdci.gov Jan 2001).

The regulatory agencies provide training and out reach program they encourage and enable financial institution to become active partners in micro enterprise programs at the local level. These agencies policies and community development programs promote and support the continued participation of financial institution in micro -enterprise development.

Access to loan and grant in micro enterprise theory is only a part, education and technical education assistance are also integral component of micro enterprise programs. Micro enterprise programs offer training in critical business skills such as budgeting, book-keeping, tax preparation, business planning, marketing and advertising, some micro- enterprise programs provide assistance in the loan application process.

Comparatively, "Tanzania is a nation of cooperative farmers " a more true statement that demands a fundamental of change in the rural economic and social organization of Tanzania. This cannot simply be done over night and by force. It will be dully be achieved by deliberate afford to encourage the growth of small – scale cooperative industries production. Small – scale cooperative marketing and distribution and communal rather than patens (Mtetewaunga, 1982)

On this view the establishment of small – scale building materials industry and housing credit by Mwanza Rural Housing programmer intends to encourage the growth of cooperative working among rural poor population and hence able them to alleviate income poverty and create enough savings that can make them afford to build own improved houses. In this way the NGO is among the key actors in Tanzania rural housing improvement and income poverty alleviation strategy. Therefore the rationale of this study is justified as there is very little knowledge concerning existing strengths and weakness on NGOs constitution in this field as it is new in Tanzania context contrary to developed counties like Europe and USA where housing industry is either privatised in commissioned to potential NGOs (Luanda, CED class notice- 2006). The government role is to make policy and regulations to properly administer the industry.

Tanzania, since her independence in 1961, has faced problems of inadequate housing in urban settlements and poor housing condition in rural areas. These problems still persist and are a great development challenge as few NGOs and enterprises supporting rural development especially rural housing interventions to reduce the burden.

It widely understood that, there are various actors in dealing with building materials and Housing development such as the government institutions, local councils, research institutes, labour organizations, local resident's organizations, the media and community based organization etc. (Corazon Dee- Hand outs).

3.3.5 Application of Micro-enterprise Theory:

Training of project activities assistance may be provided through one to one counselling, classroom sessions or through peer group exchanges. Participation often required to successfully completing such as business related causes in order to secure approval of a micro loan. Entrepreneurs generally receive continued technical support beyond the initial stages of their business development as they strive to expand their business. (http: www> fdic. gov / consumer / micro enterprise / intro/htm.)

Gender patterns in the employment sector have great changed in Tanzania during last ten years due to increasing number of women in the labour market. The orientations and women involvement in the diverse activities contributes to the growth of the household income, as women are directly responsible for providing cash needs of the household. Women are in the forefront in expanding micro and small enterprises in what is often referred to as an informal sector.

Commercial Banks, which were traditionally looked upon as power catalyst of economic provision of credit to profitable ventures, did not offer credit to the poor or small business (Kuzilwa and Mushi 1997). Then stringent lending policies and collateral requirement, cumbersome procedures and their own perception of small business and rural poor as risky business entity lead to offer excluding small business and rural poor. Most formal institutions regard own income households as too poor to save. They do not personally know them they don't keep written accounts or business plans, they want to borrow small and uneconomic sums, and are exposed high risks every time they lend. All these problems in summary are market imperfections. Hence there is a need for institutional interventions (Marcelina and Caniman, 1997).

3.3.6. Need for Brick Making Technology in Tanzania:

As a result of the growth of income the decrease in the size household and the growth of population in our country, demand in the building and housing sector will increase progressively. The population census carried out in 1978 indicated that Tanzania had a population of about 17.5 million people. It is estimated that for the present growth will be over 25milion people by the year 2000, but now the population has risen to about 35 millions (based on the population and Housing Census report, 2002). The major tasks ahead of us are how to accommodate such a population trend and improve the living standards and settlements of citizen given the existing economic hardship. Bricks making enterprise bears the favoured implications on both economic and social conditions.

Chief amongst these are, its effect on employment, industrial and rural development using local resources and on the balance of trade and payment if cements and steels are imported.

Advantage of Burnt bricks:

It is easily formed or moulded into desired shape and size, and its production materials can be easily found locally. Since housing is very important in improving the economic and social conditions we believe that an increased production of burnt clay bricks is also important in Tanzania. (Mtui and Hingira, 1986).

3.3.7. Empirical Literature:

Burnt brick in micro enterprise the case of Tanzania now being produced by two major methods (i) hand production using field clamps for burning (ii) small factories using simple mechanical machinery (extruders) permanent kilns.

Procedures

In the field there are simple methods, which can be used to test the soil collected from each pit. Water is added to the sample, mixed thoroughly until the soil become plastic and can be pressed into different shapes with hands. After mounding the soil, then form small ball and leave them in the sun for drying (i) if the ball retains its shape when drying but forms wide cracks it does not contain enough sand or silt and can not be used for brick making (ii) If the ball tends to deform and crumbles easily when dry, contain too much sand or silt and can not used for brick making. (iii) The ball, which shows the least deformity and shows no cracks or very fine ones, contains the soil, which is best suitable for brick making.

The technology of making burnt bricks, availability of raw materials and sufficient wood energy are key factors determine the quality of products manufactured.

Social –economic factors such as availability of labours, capital and management operating cost in relation to market price techniques to be dictated by local circumstances such as skill, maintenance,

process and quality control. The quality of brick depend more on raw materials and process control than on working methods or equipment.(Mtui & Hingira , 1986)

Housing- micro and small enterprises like **BALIZUKWA** group has faced a problem on inadequate raw materials (energy) for brick burning, capital knowledge and entrepreneurship skill the situation which depend more on policy makers to give more support for the housing micro –small enterprises section.

Brick burning consumes a lot of energy, at present fuel wood is the main source of fuel used although it is estimated that the total cut of fuel wood in the county already exceeds the potential stock. Even if the wood used for brick burning stock is a minor portion of the total cut, any increase in the over taxation of the counties forests will bring catastrophic end results. If you fire 1000 bricks with wood you will need one tone or $3m^3$, likewise if fire 20000 bricks you will need a 60 cu. meter of fuel-wood (ibid).

Because there are so few areas with forest that can meet the demand of bricks producing unit .It will be necessary to establish a wood lot to supply fuel-wood if you plan to fire many kilns. Firing kilns will use large quantities of wood and if the cutting is carelessly done it could lead to deforestation. (A. Beamish 1989). One should consider other sources of energy. Coal is one of locally available energy resources. There substantial coal receives in the southern parts of Tanzania, the Songwe-Kiwira field on the northern end of lake Nyasa in Mbeya region is estimated to have over 20 million tones reserves and the Mchuchuma -Kataweka reserve in Iringa Region has approximately 200million tons. Other location included Galula in mbeya region, five new sites in Ruvuma Region and Ufipa in Rukwa Region (Mtui 1986). From 1977 the building Research unit has been researching on burning bricks with coal and several test burning have been performing in our small kiln, which has a capacity of 1000 standard bricks each burning. This kiln was originally planned for burning with fuel-wood like most of the existing kilns in the country.

It is a hard job to fire a brick kiln, it becomes more and more difficult to find brick burners doing the work. School leavers with higher education, for example, are not enthusiastic about this trade because of the hard and tiresome work involved, not only in firing the kiln, but also in the whole process of brick making. And these young men find hardship in selling the burnt bricks at lower prices than those mounded before and bricks are of poor quality. It is argued to ask them to follow proper rules when burning bricks, and develop positive personal interest in becoming professional brick makers.

Good quality bricks are in great demand and bricks are needed every where in search of permanent houses as growing community need toward realisation of sustainable livelihoods. So prospects for the trade of brick making should be excellent. However, although clay might still be available, what about the firewood for burning the bricks? There are many brick makers today who have given up brick moulding, because there is shortage of fuel woods available. Those exiting from though burnt brick industry, they look for best alternative else where to earn their daily earning

There are some instances where you could find someone has large hip of clay deposit that needs many people to work in for many years and also need high consumption of wood fuel energy to burn bricks. As Merschmeyer (1989, p.132) contends, "there is no firewood left ... villagers are often cross with brick burners because they cut the firewood needed in the village for cooking.

However, brick makers are already holding one of the keys to a solution in their hands. Why? Because the raw material they posses is of high commercial value. But brick makers need assistance to help them overcome the shortage of firewood in one way or another, for example by making them aware of how to take advantage of alternative fuel which in many cases could be used just for free (ibid).

3.3.8 Alternative raw material use for burning bricks:

The problem of getting fuel wood dominates among brick makers. The critical shortage of fuel woods in the burnt brick industry has adversely affected the production of bricks below the desired targets. When visiting brick making places across the country, one can easily realise that brick makers are lamenting over their dramatic situation attributed to high depletion of natural resources without replacement led to an extreme shortage of firewood. This key problem is widespread everywhere in the country. Their complaints are based on several grounds such as:

- The firewood I get is far too little a portion of what I need.
- I must accept any wood, which is offered to me.
- My firewood has been stolen already several times.
- The transport is more expensive than the firewood.
- I was told to get a license for cutting firewood.
- The local authority told me that brick burning is forbidden due to deforestation.

Indeed, more such statements raised by brick makers are necessary factors contributed to the problem and could be addressed to curb the problem. Evidently, if the fuel woods problem persist burnt bricks industry using the fuel- woods will be greatly affected in the near future. And when discussing the problem with professional brick makers, some will say, "nothing can be done about it," while others will say: "We have to look for other alternative methods of firing our brick kilns in the future." Again others, unfortunately only a minority amongst brick makers, will see the best solution to the shortage of firewood: Reforestation, i.e. the large scale planting of trees.

3.3.9. Solutions in addressing the shortage of fuel wood Energy:

The best solution to the brick makers' problem is to plant trees, although it takes time before the wood can be harvested. Any brick maker needs to find alternative source of energy but should be restricted to the tree planting as a cheapest way. A brick maker who has a free plot next to his clay

deposit should not hesitate to plant trees, planting of various and drought resistant trees is of great concern. Likewise, the forestry department should identify and advice farmers, which best types of trees, suitable for the prevailing environment. For the purpose of data collection and in relation to the study, the researcher intends to answer the following questions.

- What other fuel can be used apart from wood?

-What kind of fuel are other brick makers thinking of?

-What do they think the use of waste products from farmers, estates, factories?

and workshops? These are,

- Husks left from the processing of coffee and rice.
- Saw-dust and wood shavings
- Dry stalks from maize and maize cobs themselves, etc.

Making this proposal to brick burners who are still left with a little firewood for some more brick kilns will probably shake their head, saying: "How cans that work? How can the waste products from a carpenter shop, like-saw dust or wood shavings be good for firing bricks?" This question favours those who are ignorant of the fact that there will be extreme shortage of firewood in the very near future. Or by those who are not aware that such a kind of fuel is only locally available. Sometimes it might be also the case that brick makers are aware of alternative fuels but they are not familiar with the use of such kinds of fuel.

Another sources of energy for burning is the use of rice husks which is locally available at the place, cotton seed wastes, saw dust at different place all over our country

Another thing that it is very replicated and successful in order to promote burnt bricks projects is the use of the kiln for portable energy serving stoves (manual service 1.1) built at the MRHP premises in the nineties. MRHP has cooperated with the Programmer for Biomass Energy

conservation (PROBEC-Germany GTZ) to improve the design and give training on its use (MRHP –manual 2-2).

The MRHP permanent kiln is located in Missungwi and is expected to last over 50 years with minimal maintenance or service. Mr. Gerhard Meschmeyer, private advisor on earth construction, guided design and construction. The floor surface of the kiln is 11.75m by 4.12m with large chimney. (ibid).

Another experience, is the Zimbabwe Urban case study: Population shift began in 1980 when government restriction internal migration were abolished since 1979 the population of the capital Harare has trebled, by the end to the century it will be close to 2 million. Severe over crowding is common place and up to 35% of the population live in flimsy backyard shake with poor sanitation, economic and urban development policies are perpetuating this situation .For example Harare's building regulations demand high standard for materials particularly bricks. Over the last five-year technicians and business advisers have worked with Harare cooperation on the production of market standard bricks, which meet the stringent building regulation but are also affordable. By combining technical support and modern business methods the cooperative has improved the quality of bricks while increasing production and reducing costs. For example changing the firing from timber to boiler waste left over by local coal fired power station made substantial saving. Building advisory service and information network, consulted brick makers in Europe who use coal and their advice was adopted for local use. (Affordable Housing. Basin news /February 1997/No 13).

3.3.10. The Northeast entrepreneur Fund Case study:

As the study is connected with the micro enterprise, the role of entrepreneur or bunt-brick maker is very important in promoting the sustainable development and realizing the improved livelihood of the people in a specific locality, to this study, the rural population. The northeast entrepreneur fund fosters an entrepreneurial spirit and encourages economic self-sufficiency through the growth of

small and self-employment opportunities in northeast Minnesota. There is a broad body of financial institutions that provides loan/credit to micro-enterprises including development bank, credit union, (e.g. SACCOs in case of Tanzania), loan fund, venture capital fund and micro-enterprises loan fund, The Northeast entrepreneur fund is a community development financial institutions fund (CDFI fund), which provides loans and guidance start up and existing small businesses in north east Minnesota. It provides training technical assistance and financing to micro-enterprises and small business owners.

Economic restructuring and permanent job loss during the 1980s had a devastating effect on the region economy, which was based on natural resources. The northeast entrepreneur fund was part of a regional effort to support home grown companies and diversify the economy of northeast Minnesota, Its founders recognized that many jobs would not return to the region even when the iron mining industry recovered, so individuals needed to start their own business and become self-reliant. By nurturing small business with loans and technical assistance. The fund hopes to encourage entrepreneurial thinking and create local prosperity and job opportunities. Most of customers are typically unemployed or under employed individuals who lack access to traditional business development resources but desires to start or expand business to provide for them and their families. The fund offers loan to existing and prospective small business owners using flexible array loan products as well as development services such as one to one consulting, technical assistance and training programs.

Funds are not restricted to low-income individuals but the fund has succeeded in attracting individual without to traditional sources of credit due to poor credit history, lack of business experience or insufficient equity or collateral are also eligible for funding,

www.fdc.gv/consumers/microentrprisetreasurycase.htm.

3.3.11. Nashville Case Study.

The Nashville enterprise community's economic development strategy was the construction of an economic development centre. It was built within the Navashille enterprise community and houses a variety of economic development and community services in a neighbourhood facility allow more residents. Through the Navashille enterprise community program, funds are channelled for economic development in low and moderate-income neighbourhoods.

One of the more successful programs operating out of the centre is the metropolitan development and housing agencies "working smart" program outfits people with skills, technical help and money to start a micro business through entrepreneurial training program offering class room training in topics ranging from accounting and taxes to sales.

Training focuses on personal development and business development, participant are learned in such areas as self – motivation, conflict resolution, image, building, finance and marketing fundamentals personnel management, customer services and also prepare professional business plans. Development and housing agency also donated funds for a revolving loan pool and in the program's infancy, the revolving loan fund in available to program graduates with sound business ideas. .(www.nashville.Org/mdha).

Procedure:

At the start participants present their ideas to a loan committee: the loan committee is comprised of staff from the metropolitan development, and housing agency and the entrepreneur guidance and training. The committee provides feedback on the ideas feasibility as well as the applicant's credit history and likelihood of qualifying for a loan.(www.nashville.Org/mdha).

3.4 Policy reviews.

Poverty is on the increase in both rural and urban areas. Poverty reduces the ability of people to afford services and decent housing, some of the consequences of this inability is overcrowding and

poor healthy due to drinking unhygienic water and poor diet. A healthy and poor population especially labour force is less productive and is a liability to the nation. Alleviation of poverty increases chances of the population to enjoy good health and thus became more productive and earning higher incomes than before.

Tanzania has established policy on poverty alleviation strategy in 1998. Current structural adjustment policies and programs being implemented in the country have exacerbated poverty. Moreover, the influx of rural youth to urban areas where it has become difficult to get gainful employment has compounded the level of urban poverty on one hand and rural poverty on the other; because rural areas are being deprived of their active and more productive labour force.

The economic performance and appropriation of national income between rural and urban areas influence human settlements development as a process. To alleviate poverty it is important to understand the economic performance and potentials of the settlements because most of rural residents are poor and as the result they cannot improve their settlements and some cultural beliefs and traditions inhibit development and the participation of women and youth in education.

A proper approach to rural housing is inevitable if one has to develop a non- discriminatory system, with the majority not being at a disadvantage.

According to the National Micro finance Policy (2000) provides guidelines to achieve gender equality in accessing financial services in order to empower low-income earner economically. The policy also gives flexibility in regulating micro finance institutions.

Vulnerable groups in small and medium enterprises have been empowered economically by facilitating their access to financial facilities in the form of credit training in entrepreneurship and business management and accessing market, credit facilities have been established like women development fund (WDF) CREW Tanzania, PRIDE, FINCA, efforts on mobilizing communities to form saving and credit cooperative associations (SACCOs) and community banks.

Development of appropriate technology and training has been understood to reduce people's workload in various ways particular in agricultural production food processing, energy and water. Poverty reduction specific policies and strategies have been developed within the PRS include agricultural development strategy (2001) the rural development strategy (2001) small and medium development strategy of 2003 and the trade policy of 2003, special community based programmes on addressing poverty reduction such as the Tanzania social action Fund (TASAF), Social Action Trust Fund (SATF), Hearth Sanitation and water (HESAWA) and community social development programme(CSDP) have components gearing to improving the quality of life of the people.

Similarly, in 1971 the government of Tanzania established a building research unit.

Researching into building construction and building material with emphasis on rural areas. The building research unity in cooperation with local agencies embarked on housing improvement campaigns (appropriate houses) covering over 30 districts in the country.

Raw material such as burnt brick, roofing tiles. They should be available in large quantities and at an affordable price to encourage housing construction. These building materials can be promoted by ensuring the establishment of building materials industrial that also can create employment opportunities.

High cost of building materials contribute largely to the high cost of housing construction because some of the materials are produced in some lager scale industries, which according to economies of scale should have had low costs of operation due to their high overhead, costs. The transport costs existence of inappropriate standard reduces the range of approved materials and building technologies.

Another issue is a lack of research on alternative available building materials in various locations and the lack of small –scale industries for producing building materials.

Policy also aims at improving the contribution of building materials industry generation, dissemination and application of appropriate building materials.

The National environment policy of 1997 reminds us that he survival of man depends on his harmonious relationships with the natural elements. The policy emphasizes the need to manage the environment and its natural resources in ways that enhance the potential for growth and the opportunity for sustainable development of present and future generation. Environmental degradation leads to wide spread poverty and vice versa. Environmental protection and conservation is an integral part of sustainable development and is indeed a social and economic necessity. The policy document further reiterates two points:

First of all, sustainable development means achieving a quality of life that can be maintained for many generations because it is socially desirable, economically viable and environmentally sustainable.

Secondly, development is sustainable if it takes place within nature's tolerance limits.

The policy aims at identification of key planning issue in land and environmental management and in the provision of housing infrastructure and services

3.4.1. Policy Statement.

In the policy it states that the government of Tanzania shall promote, small scale building materials industries labour intensive projects, earmarking of special areas within neighbourhoods for informal sector activities, activities which target on poverty alleviation, particularly among vulnerable groups e.g. women in shelter delivery and development of sustainable human settlements and rational and effective land utilization (human settlement development 2001).

Private and popular informal sectors shall be encouraged to engage in the production of building materials by giving them incentives. Training on the production and use of local building materials like burnt bricks shall be carried out in community Development Training institutions.

Small-scale industries for building materials at the community level shall be promoted and the use of local building materials in public working schemes shall be encouraged. However, to enhance rural economies and families the community members should improve their houses for better settlements.

The use of building materials that cause environmental hazard should be proscribed in order for the building materials industry to pay a major role in the economy it is important also that the building of processes that encourage adoption of appropriate technologies and combine the use of semi-skilled and unskilled Lab our (ibid). The project focuses on economic benefits and low-income earners' development. Brick making will direct create job and therefore value income and capital formation .For the micro –enterprise (Burnt brick project) due to the fact that it can reduce the magnitude of income poverty and enhancing the living standard of the people.

3.5. Conclusion.

In the contexts of the micro-enterprises and the burnt bricks, the literature review chapter has explored the concepts, theoretical underpinnings and the whole policies related to the field of study. The review has seen a gap in the documented literature about burnt bricks as the subject seems to be technical in civil engineering, though the policies guiding are focusing on environmental conservation, use of appropriate technology, poverty reduction, and micro-enterprises development which by large recovered in the literature review. The review also explores key issues and challenges, which need attention by the study and especially during the data collection at the ground from the CBO- representatives, focused groups' discussion with respondents, and interview with key informants.

CHAPTER FOUR:

IMPLEMENTATION.

This chapter provides a framework for project implementation right from the original plan (proposal), actual implementation, performance indicators and its subsequent progress reports realised. Under this study, the researcher shows how the project action plan, its budget and the staffing pattern are intimately linked in the course of project implementation to realise the intended outputs. The action plan (work schedule) is set in form of the "Gantt chart" to guide and ease the management and mobilisation of resources for implementation.

4.1 Products & Outputs

By the end of second year the researcher was expected to accomplish the following objectives with some indicative outputs and products:

Objective 01: To reduce income poverty among community members through burnt bricks projects in Misungwi ward by Sept 2007.

Outputs / products indicators.

i. Number of burnt bricks projects established.
ii. Frequency of use local available building materials for making bricks.
iii. % of brick makers applying appropriate technology.
iv. % of income generated form the burnt bricks project activities

Objective 2. To enhance the capacity of the CBOs and Community on entrepreneurship skill, brick making knowledge, housing micro- enterprises and environmental conservation by Sept 2007.

Output and products Indicators.

i. Number of CBO and Community Members trained.

ii. Number of training workshops.

iii. No of Workshop reports produced and disseminated.

iv. Level of understanding among CBO and community members captured.

Outputs and Products realised by 2007.

The interviewees agreed that the burnt bricks are processed using rice husks (40%), fuels wood (50%) and other materials (10%). However, most respondents raised a concern of inadequate materials around their easy reach attributed to deforestation, lack of capital to purchase burning materials such as trees and rice husky that are scarcely available at high costs. However, they agreed that introduction of burnt brick technology and their quick dissemination has helped poor community members to build permanent houses using the available materials and burnt bricks.

The following effects (outcome) have been observed in the community.

i. Adoption of Burnt Bricks use has been increased in the community.

ii. No of houses built using Burnt Brick have increased.

iii. All groups' members have to build their own houses.

iv. The economic status of the project member will be improved.

v. People are now aware on the environmental conservation measures, and trees are being planted at household level and along individuals' boarders.

vi. Project members can afford to send their children to secondary school from income generated from selling burnt bricks to other community members.

4.2. Implementation Approach Used:

Through participatory approaches the preliminary implementation of the project enhanced community needs identification and priority problems for study to the addressed. Equally important, it has been easy to determine the role to be played by each one of the key stakeholders.

4.2. 1. Expected Outputs and Products.

This section briefly outlines the main expected outputs and their products of the project intervention and the means of verification.

Output I: Entrepreneurship Knowledge and skills for Balizukwa micro-enterprise improved and CBO members are increasingly empowered to operate their business more sustainable and profitably.

Product indicator 1: At end of the project life by Sept. 2007, 13 out of 15 members equivalent to 87% are trained on entrepreneurship skills and knowledge.

Product indicator 2: At end of year at least 80% of CBO members are able to identify and use locally available building materials for their project and its sustainability.

Product indicator 3: 15 CBO members are trained and able to apply appropriate technology on burnt bricks.

Output II: 15 CBO members are increasingly aware on the importance and benefits of environmental conservation.

Output indicator 1: 100% of CBO members and some stakeholders in five villages of Misungwi ward use alternative raw materials for burning bricks and reduction in environmental depletion.

4.3. Project planning.

The planned activities in this project are those expected for implementation on a partnership basis with the Misungwi District council that is an authorized body to foster community economic development in the area of jurisdiction. Also, the budget is needed to accomplish the various planned activities using the resources available merely co-funded by the district council pool of resources. This includes resources like personal and even stationeries.

On this approach a CED student will have also an opportunity to participate in district council activities especially those related to community Development whenever they are compatible to the project schedules and objectives.

However, all activities anticipated / planned to be implemented here in are base on logical framework planning approach. Hence, they are carefully scrutinized and arranged in an agreed format. Every activity is allocated with specific time frame. Others are slake activities that can be implemented overlapping to one another without causing problem to the next activity while some are critical in the sense that there implementation or the stating of the following activity has to wait another that started canker to be completed. The implementation Gantt chart concerns all this information. For every planned activity there is specific identification to responsible personal and resource to accomplish it successful.

4.3.1 Project implementation plan.

The study in micro-enterprise and burnt brick project aiming at achieving two objectives as follows:

1. To reduce income poverty among community members in Misungwi Ward through burnt bricks projects by Sep.2007.
2. Enhancing the CBOs and Community members' capabilities in housing micro-enterprises, Building materials industries industries and appropriate technology.

(See project work plan attachment No VII.)

4.4 Project Implementation.

Project Implementation as explained in the introductory subsection of the project planning section accomplished through active involvement and participation of all relevant key stakeholders. These include; district council, village leaders, the Community members, and CED students who acted as an instructor assigned to supervise the students during practical training in the filed. Every stakeholder has a role and specific responsibilities to accomplish that makes one to be important integral part of the project. Project activities implementation is arranged through objectives as indicated in below narrative summary and thereafter under summarized tables and Gantt chart.(Gantt chart Attachment No. X.)

4.4.1 Project implementation Narrative Summary.

Objective-01 activities. Three activities were implemented as explained below.

i. Resources organisation, mobilization and communication with the community were done. The CED student and co- research assistant jointly prepared the task budget and communicated with all required participants including the BALIZUKWA CBO members. This was done in early Oct 2006, as preparatory activity before other training sessions were conducted.
ii. Secondly, we visited the site together with 15 CBOs members, and other 6 brick makers to tour other similar projects for the purpose of observing and enhancing entrepreneurship capability. This was done in Nov. 2006.
iii. Train CBO members and other stakeholders on the use of local available materials. This activity was geared to enhance the capacity of stakeholders and the CBO members to increase the application of locally available materials such as energy saving resources for burnt bricks. The activity was done in Jan. 2007.

Objective 2. Enhancing the CBOs and Community members' capabilities in housing micro-Enterprises and appropropriate technology. Three activities are planned for Implementation.

i. Training on entrepreneurship skills.This activity was done in March 2007, in which 30 participants including the CBO members, and other entrepreneurs from the community attended the training.

ii. Training of 15 CBO members and stakeholders leaders on appropriate technology application, which was held in April.2007 and was facilitated by the CED together with CDTTI technicians from Misungwi college. The training was geared to enhance the capacity of brick makers and other stakeholders on applying appropriate technologies such as rice husks and other waste materials that likely to reduce high depletion of natural resources to in brick industry. The most areas thought included, the use of energy saving kilns, use of rice husks, use of modern moulds for casting bricks, mixing of clay soils for casting bricks and cost effectives measures for reducing production costs on bricks.

iii. Supervision and Spot-checking of the project activities. To be able to assess the outcomes and impacts realized by the project as result of implementing its activities, monitoring and evaluation was key project component implemented. The CED student, district CDOs officials, MRHP officials and some community representatives regularly conducted spot check of project activities implemented. Through training sessions, CBO members were oriented on entrepreneurship skills, supervision procedures to manage their project properly. The knowledge on appropriate technology and alternative energy for burning bricks were also imparted and disseminated among community members.

4.4.2. Inputs

In order to implement the project several resources (inputs) were utilized, these included a fund that was available through the budget to procure materials and transportation. Other inputs are human resources both trained and those untrained from the community, technology applied on brick making. Raw materials and time were also vital inputs to this project. For instance, the work schedule was reliant on the availability of timeframe.

4.4.3 Staffing Pattern.

The staffing arrangement as by the Msc – CED student, indicates that power structure within the organization is exercised according to managerial functions of the project hierarchy, the board, the chairperson. , the secretary, the treasurer and other project members. As usual, the project has an accountant who controls the project revenue and expenditure according to the approved plan and budget. (Job description, Org-chart Attachment No. VIII and the Budget on No.IX.)

Table 4. Project Implementation Report

Objective target	Activity	Actual implementation	Time frame done.	Resources used.	Unmet Resources needs.	Remarks
1. To reducing income poverty by establishing burnt bricks projects.	-Preparing budget, communication & resources mobilization.	Budget prepared,, resource mobilized and communication done by 75%.	Oct. 2006	CED-Students. Time, Funds.	Time and funds for organizing.	Time and financial constraints
	-Field tour visit of CBO members on how others do.	-15 CBO members and other 6 brick makers	Nov. 2006	CED– Student, , Time, Funds	Time and funds for study tour.	
	-To train 21 CBO members and other stakeholders on the use of local available materials.	15 CBO members trained.	Jan. 2007.	CDTTI-Technician, Time.	6 stakeholders not trained due to limited funds &communication.	Needs to strengthen communication.
2. Enhancing the CBOs and Community members' capabilities in housing micro-enterprises, Building materials industries and appropriate technology.	-Training CBO Members on entrepreneurship skills and knowledge.	6 CBO members and 24 other entrepreneurship	March. 2007.	DED's Office.	9 CBO Members unattained due to shortage of finance,	Time and financial constraints
	-Sensitise 15 CBO members and 35 community members on application of appropriate technology.	15 CBO members sensitised on appropriate technology, energy saving kiln and environmental conservation.	April. 2007.	CED-Student,-CED Student, MRHP	Time, financial constraints 35 Community members.	- Lack of awareness household activities.
	- Supervision and spot checking of project (M&E item)	-Project site visited and changes proposed for	Oct 06-Aug.07.	CED Student.	-Time,funds and transport.	Needs to enhance community capacity on self monitoring

4.5 Conclusion.

As the burnt brick project is concerned and rural based in nature, there has been unpleasant implementation status attributed to lack of capital, inadequate raw materials, poor working tools and techniques, limited time and low level of community awareness on burnt bricks activities. Despite the researcher's contribution in terms of guiding, mentoring and assistance, the reasons above have hampered the smooth pace of implementation to realize the envisaged objectives. The study then has provided avenues for addressing the earmarked problems as seen in the recommendation.

CHAPTER FIVE:

MONITORING, EVALUATION & SUSTAINABILITY.

Monitoring, evaluation and sustainability are the three important components in the project cycle. As researcher, I prepared a questionnaire guide, which I used to collect information concerning the project implementation. I also visited the project to physical see the actual implementation of the project, and managed to advise the good ways to do better in future. During monitoring and evaluation, I was able to assess the outputs realized and the results realized by the bunt brick project and se t procedures for sustaining the project benefits in future.

5. 1 Monitoring

Monitoring entails continuous project assessment and follow- up during the implementation stage to see whether the objectives and related targets are being achieved according to work schedule and resources available. Similarly, monitoring involves the project management team to be able to assess the effective utilization of the project resources, in terms of human resources, work schedule, financial resources and raw materials including effective use of working tools and equipments.

In relation to the study, monitoring of the burnt brick project aims at answering the core questions as to what do we want to know as regard to project implementation?

Which do we really want to monitor in the project? & how do we collect information related to monitoring?

5.1 .1 Monitoring objectives.

Three monitoring objectives were envisaged.

1. To track the regular implementation status of the burnt brick project in Balizukwa CBO according to targets and resources utilization by Jun. 2007.

2. To enhance the capacity of 15 burnt brick makers within Balizukwa CBO through supportive supervision for boosting their production and income by Jun.2007.
3. To monitor the implementation of the other burnt bricks projects in 5 villages of Misungwi ward if are conserving the environment by Jun. 2007.

5.1.2 Monitoring Activities.

Objective 1: To track the regular implementation status of the burnt brick project in one CBO according to targets and resources utilization by June 2007.

Activities involved:

1. Preparation of the monitoring checklist.
2. Regular follow-ups and supervision at the project site and see what is being done.
3. Conduct meetings with burnt brick makers for reviewing targets and resources utilization.

Objective 02: To enhance the capacity of 21 burnt brick makers including Balizukwa CBO members through supportive supervision towards boosting their production and income by June 2007.

Activities involved:

1. Preparation of the training needs for burnt brick makers. The researcher and his co-research assistants identified training needs and gaps from the brick makers and the community around that can be addressed during supportive monitoring session (training).
2. Training of 21 brick makers on the use of appropriate and environmental friendly technology, quality production and entrepreneurship skills.

Objective 03: To monitor the implementation of the burnt bricks projects villages of Misungwi ward dealing with environmental conservation by June

2007 Activities involved:

1. To hold a meeting with 15 CBO representatives and other 20 brick maker from the surrounding villages on environmental conservation.
2. Train brick makers on use of rice husks and fuel saving kilns.
3. To use by –laws to preserve the environment on brick making business. (See information for monitoring project operation, Indicators and tool for monitoring attachment XI).

5.1.3. Management Information System (MIS)

Under this study, the MIS was used a guide to gather relevant information about the burnt brick project. Before gathering information for monitoring of the project implementation, a researcher in collaboration with the project representatives /leaders developed a monitoring guide/checklist in terms of questions which were asked to the project beneficiaries and the community at large (see monitoring guide attachment No XII.).

5.1.4. Methods Used in Monitoring

Three methods were used to collect information useful for monitoring of the bunt brick project; much of these are qualitative methods, they included Focused Group Discussion (FGD), direct observation and secondary data as a quantitative method. The main purpose of monitoring was to assess the implementation status in relation to planned objectives, activities and timeframes schedules.

5.1.5. Focused group discussion

As monitoring is a continuous exercise of the project cycle to assess the implementation status at every stage towards realization of the project objectives. During early stages of the project I visited the target group to see if they had adopted whatsoever we had discussed about their organization and project operations. I applied participatory interviews and group discussions to gather

information about the project implementation. The gathered information helped me to assess the performance based on project objectives and their related activities. The monitoring guide assisted me to correct problems, which needed immediate actions with limited resources. One of the key problems addressed in the course of the project monitoring, when we had our firs meeting in June 2006, I discovered some gaps in quality and production capability.

There was a need to conduct a capacity building training to 6 CBO members on entrepreneurship skills, appropriate technology and quality control, which were identified as weakness areas affected the production, and marketing of the burn brick project in the area of the study. The outcome indicators have been an increased efficiency in brick production, better brick quality and increased income generated from the burnt brick business in the area. Similarly, I was able to determine type of resources needed for the project such as human capital, materials equipments and financial resources. As a CED students and my co- researchers facilitated the monitoring pro cess in an efficient manner.

5.1.6. Direct Observation

Through regular visits to the project site, I was able to observe the real project physical progress and conceptualise the real problems facing the CBO and community involved in burnt brick activities.

However, in observing the researcher identified that the brick makers had inadequate skills, which attributed to their poor workmanship as the quality of bricks were poorly made. Similarly, I noticed that there was a problem on the availability of raw materials such as fuel wood and rice husks simply because the brick makers used cow dug, millet husks powered rice husks remaining and saw dusts, most of these materials were weak and did not burn bricks properly.

For the purpose of this study, the following means of the verification constituted to the monitoring tools.

i. Implementation reports were written and distributed to all relevant key stakeholders on a monthly, quarterly, bi annual and annual basis.

ii. Quarterly participatory monitoring was done on partnership between the district council CBO members' donors. The CED student facilitated the CBO and assisted in designing the format and forms used in Project monitoring.

iii. Gantt chart was used to allocate time frame resources and responsible personnel's for each activity. The time for starting and finishing the project implementation was identified. If much of financial resources or time is spent than how was planned the implementation status indicate existence of problems that have to be solved if the project was to proceed well.

The CBO's leaders were required to report every month, quarterly, semi annual, and annual progress reports. The original monitoring was conducted through oral question from the group members, meeting written questionnaires, observation to report the progress towards the goals and objectives. This is an integral part of the focused group discussion, which was done using the PRA tools, as every stakeholder was actively involved in the discussion. The Gantt chart used also to reveal responsibilities of every actor and resources to used as well as timeframe for each activity. If much of financial resources or time is spent than how was planned the implementation status this indicated existence of some problems that need an immediate attention before the project implementation proceed.

5.1.7. Monitoring team

The monitoring team was comprised of the CBO's leaders, village leaders, brick makers and officials from community development department. It also involved a team of CED student and co-research assistants who collectively participated in the monitoring exercise. However, representatives from the BALIZUKWA CBO acted as a host organization and provided adequate information about the study.

5.1.8. Summary monitoring Table.

Goal: Under this study, the monitoring goal was to have effective and regular assessment of the burnt brick project implementation status against its set objectives and resources in a given time by April. 2007. (see the summary monitoring table Attachment No .XII. B.)

5.1.9. Analysis of Presentation

As the monitoring exercise was regularly conducted, various stakeholders were involved to assess the project implementation status and able to address issues of concerns which hindered the smooth progress of the burnt brick project. The methods and tools used in handling the monitoring were participatory and easy to gather information from the project and to its beneficiaries. The checklist (interview guide) applied for soliciting information was too flexible such that influenced great part of stakeholders to provide relevant information during discussion within the premises of the identified issues.

Critical issues observed during monitoring exercise were those needed special attention to rectify the situation whether for the betterment of the project or for the change of implementation style but merely within the context of the project objectives and targets. One critical issues addressed during monitoring was that, since the burnt brick project (BALIZUKWA CBO) was constrained with the limited supply of raw materials such as rice husks and firewood, it was necessary to link with the business people in the nearby urban centres where the rice husking factories are located could reserve and sell rice husks to the project at an affordable price.

As explained above, there were numerous activities formulated from three main objectives of the burnt brick project whose monitoring was effectively done. Their indicators (both direct and indirect) were developed to measure the quantitative and qualitative outcomes of the activities and indirect changes accrued from such activities

Finally, monitoring in its totality helps the project implementation to be carried out in a good pace as some errors can be corrected as the monitoring missions reveals them and advice accordingly toward achieving project desired objectives and targets. Sometimes, monitoring involved capacity building sessions to enhance the capacity of beneficiaries in some issues, which contributed to their inefficiency as observed by the monitoring team through supportive monitoring.

5.2: Evaluation

Evaluation refers to periodical assessment of the project performance at three levels that is from feasibility stage, mid implementation stage and at the end of the project. It enables the project beneficiaries to see if the project objectives are achieved and its intended changes & results are being observed in the community. Evaluation also helps both internal and external people to know whether the project was implemented successfully or it was partially done with different interests.

5.2.1. Evaluation Objective: The major objective of the evaluation is to assess the performance and impact realized from the implementation of the BALIZUKWA CBO-burnt bricks project in the community.

5.2.2 Activities associated.

1. To identify the Need and gaps occurred during the implementation.

2. To identify generated outcomes, benefits and results of the projects.

3. Review performance for next phase of the Burnt brick project (planning for the future.)

In order to conduct evaluation of the burnt brick project under the BALIZUKWA CBO one objective was developed with some activities to support an effective evaluation process. CED student, co-researcher and the CBO representative had an opportunity to assess the impacts/results

realized by the project based on the evaluation findings. At the end of the project implementation period, the following results observed.

- CBO members and the community are able to identify and use the local available building materials for building their houses.
- 13 out 15 members trained on housing-entrepreneurship skills and knowledge (Book Keeping, Project Planning and Management, Business Communication Skills). The village council at the end of first year of the project implementation the village council could have allocated a permanent site and shelter for CBO to operate their activities.
- At least 10 new members joined the CBO due to its good performance and being focused to improve the socio- economic status of the members.
- The CBO members have constructed improved houses using burnt bricks this is seen to be an indicators of improvement in their standard of living.

Another thing was evaluate the impacts on environment, to see whether the project contributed to high rate of deforestation and other environment problems such as water erosion, wind erosion and land degradation. The general observation on the environment, the surrounding environment is greatly depleted and one of the causes is high consumption rate of wood fuels for cooking and for burning bricks. Given the mass mobilisation done by various organisation and government initiatives, there has been a positive change in community behaviour and habit toward environmental conservation. The continuous use of rice husks for burning bricks has widespread across the area of study and the whole community is enlightened on the use of appropriate technology and energy saving Kilns or stoves.

5.2.3. Methods for conducting Evaluation:

Because the project has not yet come to an end, the study dealt with the midterm evaluation to evaluate the targets, objective to meet the original project goals. Three methods were applied for evaluation; these were focused group discussion, direct observation, and secondary data discussion.

5.2.3.1. Focused Group Discussion (FGD)

This method was applied in participatory manor in which various stakeholders such as villagers, district councils' officials, CBO's members, community representatives, village government leaders, MRHP representative, CED student supervisor to assess the impact and results generated by the project. Initially a set of questions were prepared by the research in collaboration with the beneficiary community in burnt brick industry, these questions guided the whole discussion on evaluation process. During discussion every participant was given an opportunity on what he/she has seen the project implementation and the way she/he should suggest to do better in future before come to an end.

5.2.3.2. Field Visit

Another method applied was the field evaluation visits to meet with project beneficiaries and some community members. A team of project beneficiaries and the CED researching team collectively visited the project to see physically what has been implemented. By observing there were able to see and comment during evaluation.

5.2.3.3. Secondary Data.

Since the project has been in operation for long time, various project reports were written and submitted to the project implementation committees. The researcher used such reports to track record of the project performance and able to assess the positive and negative performance of the project. The available information was useful in assessing the project performance records and its impact realised in the course of project implementation.

5.2.4 Summative Evaluation

Summative evaluation focuses on collecting and presenting information that are needed for summary statements and judgments about the program and its value. In respect of the burnt brick project, summative evaluation (especially the mid term evaluation) was conducted in March 2007, which assessed the previous project implementation and impacts realised. Key elements were geared to increase the proportion of participants in the evaluation team mostly from government officials, civil institutional leaders and some stakeholders from among the burnt brick makers' - community who had direct benefits from the brick project for generating of their income. The project has created employment opportunities among youth community members and helped to fight against poverty and conserving the environment.

During the participatory mid-term evaluation, the assessment of performance, results and changes accrued from the project were attended by the evaluation team. On the performance assessment, the issue here was to see if the project has been implemented according to the planned activities compared to what initially planned using limited and available financial, material and human resources. The findings from the evaluation team, indicates that the burnt brick project was not implemented according to schedule and pre-determined objectives. This was attributed to reasons such as limited resources and inadequate raw materials, lack of skills on use of appropriate technology and the general rural hardship caused by poverty.

Despite some stakeholders in the BALIZUKWA CBOs had attended some training sessions on entrepreneurship skills, environmental conservation, and use of appropriate technology for the sake of improving their production capacity in the burnt brick industry, their results seemed not to bear positive results as expected. The trained stakeholders were just few and affected with the poor environment to bring about rapid changes in the community in which the burnt brick industry is mushrooming.

However, when the evaluation team measure the changes or results occurred by implementing the burnt brick project and their collaboration with the BALIZUKWA CBO. Some measurable changes or results were realized in terms of people engagement in CBO and work together to achieve the common goal in burnt brick industry, which in the past was not the case.

Similarly, various stakeholders are not aware of protecting the environment through using alternatives sources of raw materials for burning bricks such as rice husks, cow dugs and millets /saw dust.

It was noticed during the evaluation that similar projects on burnt bricks will speed up the rural development especially the speed for building low cost houses suitable for poor people in the rural areas.

5.2.5. Composition of Evaluation Team

The evaluation team was comprised of the CBO's leaders, village leaders, MRHP representative, brick- makers and officials from community development department. It also involved a team of CED student and his research assistants who actively participated in the monitoring exercise.

5.2.6. Performance Indicators.

As observed and revealed in the assessment of results or successes of the project, there were some indicators applied to detect such changes as a result of project implementation in the area. The available sources of information were from project reports, research guide collected by the CED student and the secondary information from the existing data and from other recent studies on burnt bricks. The realized performance indicators included:

- 5 women from among CBO members have acquired and planted trees as one of the family woodlots. This reduces environmental depletion rate and made easy access to fuel woods.
- Strong CBO has been established with targets to produce burnt bricks as a source of improving their livelihoods.

- Increased community awareness on the importance of using burnt bricks for rural housing and application of appropriate technology. This justified from the high rate of dissemination of burnt brick activities in the surrounding communities.
- Enhanced capacity of Burnt bricks stakeholders on various issues such as micro- housing projects and entrepreneurship skills

5.2.7 Summary Evaluation

Goal of Evaluation is to assess the impact realized from the burnt brick project.

Narrative	Performance indicators	Expected outcome	Actual outcome
To Assess the performance and results realized from the burnt bricks project in the community.	-Implementation Status is achieved by 75% against actual implementation.	-Dissemination of improved houses.	- 25 % of the community has built improved houses using burnt bricks (low cost housing).
	-Change in livelihood attained.	-Increased income among burntbrickproject'beneficiaries.	-Income of beneficiaries increased by 50% compared to the pre-project period.
	-No of people were involved in the project.	-Level of poverty reduced.	-Level of poverty among brick makers is relatively reduced.
	-No of houses constructed using burnt bricks.	-Quality of burnt bricks produced increased.	-Quality of bricks is being improved.
	-Level of knowledge and skills attained by project beneficiaries.	-Mushrooming of micro-housing enterprises.	-Micro-housing enterprises increased by 80% in the community.
	-Level of environmental conservation campaign	-Environmental conservation initiatives are seriously implemented.	- Positive altitude towards environmental conservation is maintained.
	-Level of burnt bricks dissemination and uses of appropriate technology.		

5.2.8 Analysis and presentation of evaluation Results

Pursuant to the evaluation findings of the burnt brick project, key issues were critically analysed based on their relevance and possible future options. These included the following:

a. An Evaluation was a participatory process.

The mode of operation of the evaluation was participatory in nature as all stakeholders were involved in the assessing the project performance and observing results witnessed from the project.

Its methods applied were friendly and flexible to every respondent in a way were able to provide their accumulated experience and knowledge about the burnt brick project.

b. The project not implemented according to action plan.

In assessing the pace of project implementation, the work schedule was checked and found that most of the planned activities were not accomplished in time or rather implemented below capacity. This vividly showed a certain level of inefficiency. When the respondents asked what were the reasons for not meeting the target, reasons given included short period devoted by people in brick making business. As this activity was effectively conducted during the dry seasons between July and October, at the same time people had affected with drought and food insecurity they concentrated with searching supplementing food during rainy season. In this respect, this study agree with the fact that food production in rural area has direct relationship with all economic and development activities carried in the same community.

c. Inadequate raw materials.

It was revealed by the evaluation team that the root cause of poor burnt brick production is the availability of raw materials, especially those used to burn bricks. As discussed above, burnt bricks normally use raw materials from natural resources, such as firewood, and during bumper harvest of paddy then rice husk can be applied to burn bricks. In most cases, availability raw materials such as rice husk been a problem and some are very expensive especially buying and transportation costs from the milling machines up to the burnt brick factories in remote area.

d. Lack of skills on appropriate technology.

The respondents during evaluation, agreed to have incapacity attributed to lack of skills on the application of appropriate technology. They appreciated of having short tem seminars training from the community development departments and that were facilitated by the team of CED

students and research assistants, these kind of training were not enough to improve their knowledge and skill in appropriate technology as well as entrepreneurship skills. Despite such enlighten on appropriate technology, the application is not widely covered as over 60% of participants or project beneficiaries still using rudimental ways of burning bricks such as firewood, which are not energy saving technology and give poor products.

e. Prevalence of community poverty.

There is a general relationship between any community intervention and the status of poverty in the sample community; the evaluation team revealed that extreme poverty has been the root cause of failure in the brick making industry. As people are poor in both income poverty, lack of education, hunger and prevalence of diseases, their production capacity in the burnt brick industry is also negatively affected. The researcher conclude that the weak production capacity in the burnt brick projects, though with the supervision of the CBO still poverty has a space to destruct the intended plan of operation hence inefficiency.

5.3 Sustainability

Sustainability refers to the capacity of a project to continue functioning and rendering its services in absence of the support such as financial resources. The sustainability of the project is relevant when the desired services are persistently functioning by deploying its endowed resources (materials, human and accumulated expertise).

Sustainability of the project can also be noticed by way of the level of dissemination and strengthened mechanism and procedure in managing the project, which also can be handled over to the key stakeholders. It is likely to be achieved as it is rooted from the identified needs of the CBO members. Since CBO members were trained on entrepreneurship skills and experts are available at district level, continuous monitoring and evaluation will be done.

Similarly, as the planned activities are part of their daily responsibilities, improvement on the burnt bricks production is of vital importance thought the assistance of the community development department personnel and regular follow-ups by the CED who usually offered supportive supervision and capacity building sessions.

Because the community felts needs were identified by the community members through CNA under the BALIZUKWA CBO. In order to strengthen sustainability of the burnt bricks project activities implementation, several training sessions were carried out that geared to impart skills and knowledge among stakeholders and the community at large involved in burnt brick activities. For instance, owing to the fact that the burnt brick project is established at the grassroots, 35 community members were trained to manage the project, knowing the appropriate technology using saving kilns and rice husks, and other materials, which can be found in their community.

However, the sustainability is guaranteed in provision of proper policies to guide the housing-micro enterprises, availability of alternative source of building materials, the continuation interaction with change agent will enhance sustainability, strengthening of micro enterprises training for providing more substitute income and outline training and seminars concerning knowledge and skills on running the project. The project ensures community a active participation in all stages of the project: identification, planning, Implementation and Monitoring and evaluation. This alone can contribute to strengthen the sustainability of the project.

On the financial aspects, the burnt brick project is expected to improve because the demand now is increasing due to more people adapting the uses of burnt bricks for building their houses instead of using mud and pole materials which does not conserve the environment. Again at the area the establishment of many institution make the sell of burnt bricks to be high the situation that ensuring high income as well as sustainability of the project and well being of the CBO Members.

Another aspect of finance is that some fuel wood, which have used as materials for burning bricks now is used for other purposes so as conserving environment. Misungwi brick makers groups are in the process of establishing an association that will help them to generating more income. The CED Msc student has encouraged the groups to form SACCOS that can help them to raise funds for their interventions.

Balizukwa as CBO now have three acres of small-scale forestry, which expected to sustain their project since the forest output can be used as a source of materials for burning bricks.

CHAPTER SIX:

CONCLUSION AND RECOMMENDATIONS.

This chapter provides conclusion and summary of recommendations of the study including the way forward to addresses the outstanding problems noted in the course of the project implementations and study findings based on the information gathered by the researcher for specific use in this study. Decision and Policy makers can use the recommendations of this study when addressing issues related to poverty reduction through housing micro-enterprises and appropriate technology in burnt bricks.

6.1. Recommendations.

In the light of the above findings and status of implementation of the Balizukwa burnt brick project, researcher's assessment on the contribution of the burnt brick projects on the people's livelihood and environment conservation has been covered with the findings. As this paper aims at giving the recommendation and policy options that if applied could improve the welfare of the brick makers in the rural area and contribute in the fight against poverty, a common phenomenon in rural Tanzania. The study recommendations are the following:

As a result of shortage of tree resources and rice husk materials for burning bricks people should be encouraged to establish woodlands (Ngitiri) around their homestead and surrounding farms which eventually be used as wood fuel for brick making. Similarly increase paddy production in years with good climate for rice husk production.

i. Policy makers have to expand the informal sector (micro-enterprises) with flexible policies, which favours the promotion of small-scale enterprises.
ii. The government and business community should expand local market opportunities for food crops and burnt bricks so that community people could access to stable and reliable market of their products.

iii. Training institutions and other research institutions should research an energy serving technology for burnt brick and devise alternative use of locally available materials such as millet husks, cotton and other crop waste products.

iv. Basic education at primary school and secondary education should incorporate curriculum on appropriate technology, crafts and masonry works especially to improve low cost houses and housing environment and disseminate the technology widely in the rural areas like in Burundi, Rwanda and Kenya where burnt bricks are common for building houses.

v. The government should speed up the process of land surveying rural area; this will make all land in the community to apply as collateral (tangible assets) which can help them to secure loans and credits from financial institutions.

vi. Promote training of micro, small enterprise in technical, managerial, analytical and organizational skills for all institutions involved in burnt bricks.

vii. Enhance self-coordination among NGOs with to government at all levels, district committees such set up to be established at all levels. Also encourage dissemination of positive information about micro and small enterprise through all forms of media, formal and informal.

viii. Promote self-organization among micro and small enterprises for networking, lobbying and advocacy on low cost technology and micro-enterprises.

6.2 Conclusion.

This study has deeply explored the key factors affecting the performance of the burnt brick project and its relationship to the micro-enterprises. As observed in the CNA and in problems identification sections above, problems such as shortage of raw materials, lack of capital, inadequate entrepreneurship skills among brick makers, high environmental resources depletion, inadequate use of appropriate technology in brick making are the contributing factors earmarked in the study. It is clearly noted by the study that working in groups such as those in the BALIZUKWA CBO

increases the security and morale of working effectively. The study urges the rural community to establish many CBOS, which may foster their income generating activities (micro-enterprises) as mechanisms for combating poverty and improve the standard of living.

Since the project was expected to improve the livelihood and income of the people through selling of the project products and conserve environment by using energy saving materials as part of appropriate technology initiatives. Most rural community have developed desire to build permanent houses using burnt bricks, whose costs is cheap, and can be produced using locally available materials.

Finally, this study has achieved its objectives, though there are gaps that need further research the field of study. The study recommendations shall be applied by policy makers and decision makers to improve the standard of living among the rural community by having permanent houses, earning good incomes, enhancing capacities of micro-enterprises and conserving the environment. All these are geared towards attaining sustainable micro-enterprise development and combating rural poverty.

References:

1. Agnes A. Mwaiselaga EVALUATION OF LOW HOUSING COSTING TECHNIQUES USED AT MWANZA RURAL HOUSING PROGRAMME (MRHP) Dar es Salaam 1999.
2. A. C. Lewin HOUSING COOPERATIVES IN DEVELOPING COUNTRIES Intermediate Technology Publication Ltd, Chi Chester New York, Brisbane, Toronto (1981)
3. A. L. Mtui and L.Hingira IMPROVED RURAL TECHNOLOGY (Small Scale Burnt Bricks Production in Rural Areas)
4. Anne Beamish and will Donovan: VILLAGE LEVEL BRICK MAKING; Braun's chewing, Wiesbaden vieweg 1989.
5. An International Journal; Small Enterprise Development VOL 4 Number 4.
6. D. J. Cook & R. J. Spencer BUILDING MATERIALS IN DEVELOPING COUNTRIES, British Library Cataloguing Publication Data 1983.
7. Gerhard Merschmeyer: BASIC KNOW HOW FOR THE MAKING OF BURNT BRICKS AND TILES MISEREOR; Aachen federal republic of Germany November 1989.
8. Harare, Zimbabwe Burnt Brick Case Study; Habitat II the GreatDebateHABITAT II, BASIN NEWS 1997.
9. Ministry of Land and Human Settlement Development; NATIONAL HUMAN SETTLEMENT DEVELOPMENT POLICY DAR ES SALAAM January 2000.
10. Marjorie Mbilinyi GENDER PATTERN IN MICRO AND SMALL ENTERPIRISES OF TANZANIA 1999.
11. Roland Stulze Kiran Mukey: APPROPRIATE BUILDING MATERIALS; Centre for Development Cooperation in Technology and Management St Gallen 1993.

12. Min of Land and Human Settlement Department: HUMAN SETTLEMENT DEVEOPMENT POLICY, Dar es Salaam 2000.

13. Global Report on Human Settlement Development Habitat 1986.