EXPLORATION OF SOCIAL ECONOMIC BASELINE INFORMATION OF RESIDENTS OF KAMANGA VILLAGE IN THE SENGEREMA DISTRICT OF NORTHERN TANZANIA

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ABSTRACT

Kamanga is a village in the Nyamatongo ward of the Sengerema District, North-Western Tanzania. It is situated on the shores of Lake Victoria, opposite the city of Mwanza. Despite its proximity to Mwanza, Kamanga lacks basic services, such as healthcare, and residents have only limited economic opportunities. This study was commissioned to understand Kamanga's assets, opportunities and strengths and to identify the priorities for a development program in the village.

Methods

This was a descriptive, cross-sectional study that used mainly qualitative approaches (focus group discussions and in-depth interviews). Data was collected through guiding questions, including open-ended questions, and responses were recorded by tape recorder. The researchers then carried out a data record review and a typological analysis of the data.

Summary of Findings

A total of 110 people, including women, men, young people and vulnerable individuals, took part in the study. The following key findings were identified:

- The main activities that bring people together are public meetings, development activities (e.g. construction of school), burial ceremonies and weddings.
- The main religions are Christianity, Islam and local traditional faiths.
- When asked about parenting and recreational play, participants reported that children had the opportunity to play at school, but not at home. Corporal punishment for children is common.
- Men and women tend to undertake different kinds of work: few roles are shared. Historically, women have not enjoyed equal rights with men and domestic abuse does occur.
- There are no health facilities.
- Educational provision and attainment is low. There is a shortage of school buildings and teachers. Schools routinely administer corporal punishment and some of the methods of punishment are considered unacceptable by the local community.

- Economic activities include fishing, farming and micro-businesses, but there is no reliable market and capital is limited. There is scope for making more use of the lake, and for attracting investment from ferry companies.
- Food production has significantly reduced, due to a shortage of land and agricultural tools. Decreased rainfall has also been a factor.
- The main sources of energy include firewood, charcoal, kerosene, electricity from the national grid, and solar energy.
- There is insufficient clean, safe water and environmental hygiene is unsatisfactory.
- There are no formal support systems for vulnerable people.

Four priorities for development were identified:

- Health Services
- Education
- Water
- Entrepreneurship

Conclusion

The study revealed a number of strengths, assets and opportunities in Kamanga and it is clear that some of the weaknesses and challenges can be dealt with by the residents themselves. However, there are other issues that will require input from partners such as the district council and development agencies.

Recommendations

The people of Kamanga urgently need:

1. Healthcare services, such as a dispensary or hospital.
2. Improved educational facilities, including completion of the construction of Mtakuja primary school and another primary school at Chemagati.
3. Clean and safe water.
4. Support for entrepreneurship, including training, capital and modern tools for agriculture and fishing.

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Abbreviations

ABCD	Asset Based Community Development
AIC	African Inland Church
AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
BMC	Bugando Medical Centre
CUHAS	Catholic University of Health and Allied Science
ECD	Early Childhood Development
ECE	Early Childhood Education
ESRF	Economic and Social Research Foundation
FGD	Focus Group Discussion
HIV	Human Immune Deficiency Virus
IRB	Institutional Review Board
KI	Key Informant
MOU	Memorandum of Understanding
MT	Metric Tons
NGOs	Non- Government Organization
PLWHA	People Living with HIV/AIDS
PRSP	Poverty Reduction Strategy Paper
RC	Roman Catholic
REPOA	Research on Poverty Alleviation
SACCOs	Savings and Credit Cooperative Society
SDA	Sabbath Day Adventist
SEDP	Secondary Education Development Project
TB	Tuberculosis
TAKNET	Tanzania Knowledge Network
TIN	Tax Payer Identification Number
URT	United Republic of Tanzania
URTI	Upper Respiratory Tract Infection
UTI	Urinary Tract Infection
VCT	Voluntary Counseling Test
VEO	Village Executive Officer
VIP	Ventilated Improved Pit Latrine
WEO	Ward Education Office

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CHAPTER ONE

Overview

The village of Kamanga is situated in the Sengerema district, one of eight districts in the Mwanza region of Tanzania. Sengerema is bordered to the north and east by Lake Victoria, to the south by the Geita district and to the south-east by the Misungwi district. Kamanga falls within the Nyamatongo ward, situated along the shores of Lake Victoria. Kamanga is linked to the city of Mwanza by regular boat services, with a one-way travel time of about thirty minutes. Kamanga is also linked to Sengerema District Council's headquarters by a well-used but unpaved road, with a travel time of around one hour in the dry seasons.

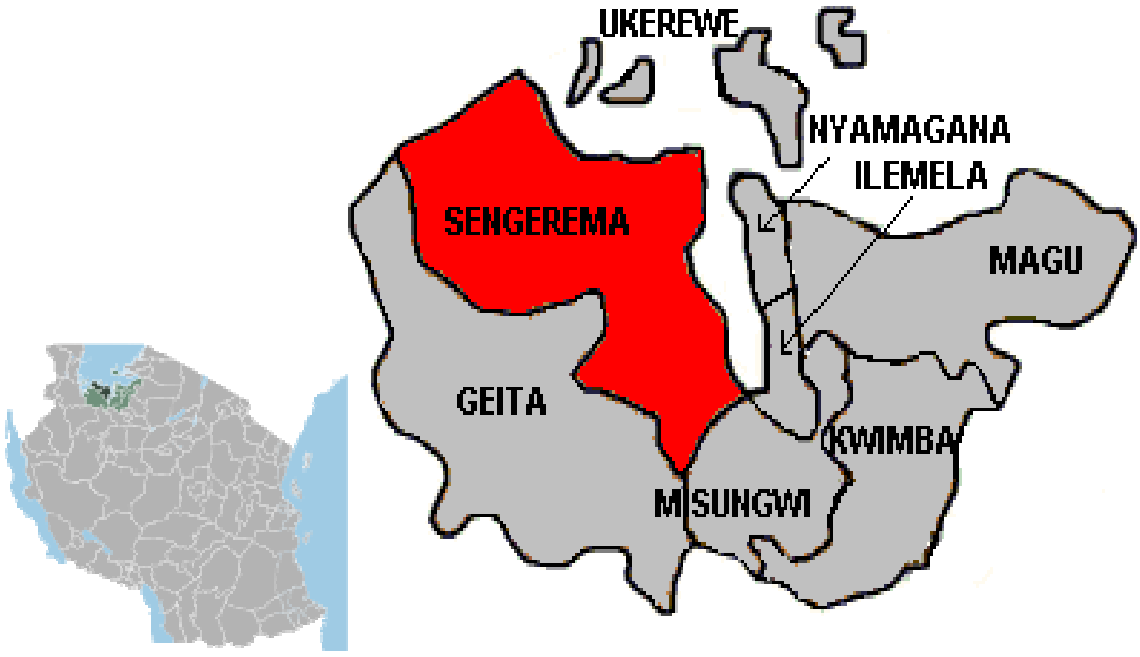

Figure 1. Maps of Tanzania and Mwanza Region showing Sengerema District Council (in Black Color)

It is estimated that 75 per cent of the population depend on agriculture as their primary source of income and food (Enns, 2013). The majority practice subsistence farming, livestock keeping and fishing. Some residents are engaged in very small-scale business activities (Sengerema District, 2013).

According to the assessment done by Amani Girls' Home (Shoki, 2013), factors affecting ECE and ECD in Nyamatongo ward include; inadequate healthcare services, a poor feeding program and poor household economic status. However, this assessment did not reveal the true picture of the community since it focused only on vulnerable children in relation to their social-economic lives.

The Bugando Medical Centre

In December 2014 The Cedar Foundation Foundation commissioned the Bugando Medical Center, through the Community Health, Research and Consultancies Department, to conduct a detailed situation analysis of the Kamanga community. The center was chosen because of its technical capabilities to undertake such assessments. The assessment used well-established methods and tools to understand Kamanga's assets, opportunities and strengths, drawing strongly on the ABCD community development principles, which recognize that lasting social change is best achieved by focusing on local people's aspirations and strengths (Cunningham and Mathie, 2002).

The assessment made a particular point of seeking ideas from vulnerable individuals: people with disabilities; people caring for orphans; widows; widowers; elderly people; and people with chronic diseases such as HIV.

The Cedar Foundation Foundation

The Cedar Foundation Foundation Limited is a not-for-profit company incorporated on 18 September 2014 under the Tanzania Companies Act 2002, with the registration no: 111373 and TIN: 125-320-783. Established in 2005, The Cedar Foundation Foundation has its headquarters in Bulgaria, where it developed a range of services enabling people with disabilities to reach their potential and to be fully integrated into their communities. Some of the specific services offered by The Cedar Foundation Foundation in Bulgaria are:

- Living and accommodation support: disabled individuals are supported by living in housing that is appropriate for their needs.
- Employment, education and training services for people with disabilities.
- Opportunities for people with disabilities to be involved in the community, to build friendships and to explore opportunities available locally.

Problem Statement

Despite its proximity to Mwanza, Kamanga enjoys only basic services and limited economic opportunities. The community has poor access to healthcare and sanitation and people are routinely exposed to water-borne diseases and parasites. For example, a study at Kamanga Primary School, found that 64.5 per cent of pupils were suffering from schistosomiasis (Mazigo et al, 2010).

Kamanga village is connected to Mwanza city by reliable ferry services to the rest of Western Tanzania. The village is therefore an important transport hub. In addition it is surrounded by large areas of undeveloped land. However, a rapid assessment by O'Sullivan (2014) concluded that a lack of local, national and international involvement meant that significant development opportunities were being missed.

Justification of the Study

The Cedar Foundation has signed a (MOU) with Sengerema District Council to start working with the Kamanga community. The Cedar Foundation chose to focus on Kamanga because, unlike other villages in the Nyamatongo ward, it has exceptionally limited services and no health facility.

Purpose of the Study

The aim of the study was to identify potential for and challenges to health, socio-economic and environmental development in Kamanga, and to inform decisions about the most relevant development interventions.

Broad Objectives

To explore the strengths, assets and challenges in the Kamanga community, and to identify priorities for development.

Specific Objectives

Specifically, the study aimed to explore:

- The social, cultural and spiritual life of the community

- Family structures and gender dynamics
- Healthcare
- Opportunities for education and training
- Economic activities
- Food accessibility
- Access to clean water and sanitation
- The environment
- The views and status of members of the vulnerable community, and the community's perception of them
- The community's own perceptions of its strengths and assets

Research Questions

1. What are the strengths, assets and challenges for development that exist within the Kamanga community?
2. What are the development priorities for Kamanga?

CHAPTER TWO

Methodology

Study Design

This was a descriptive, cross-sectional study which used qualitative approaches.

Study Area and Study Population

Kamanga is one of four villages in the Nyamatongo ward; the others are Karumo, Nyamatongo and Kabusuri. According to the 2012 Population and Housing Census for Tanzania, Sengerema District has a population of 663,034 people and the population of Kamanga village is 4,355 people in 859 households (National Bureau of Statistics, 2013).

Sampling Method

Kamanga village is divided into five hamlets: Kamanga A, Kamanga B, Mtakuja, Nyakazuzu and Chemagati. To ensure a representative sample of the entire population, five focus group discussions were conducted with representatives from each hamlet. Another focus group discussion was conducted with a group of vulnerable individuals such as elders, widows, widowers, orphans, people with disabilities and people living with HIV/AIDS; and a further two with groups of young people aged between 18 and 24 and drawn from all five hamlets. Participants were selected with the assistance of the VEO and hamlet leaders.

Other individuals were invited for interviews as key informants because of their social and technical positions in the village. This group was comprised of: village leaders (Ward Counselor, Ward Executive Officer, Ward Education Coordinator, Village Chairperson, and Village Executive Officer), a traditional birth attendant, a traditional healer, a vulnerable people's representative, a well-known businessman, and influential people and extension workers. The extension workers were active in the areas of community development, health, agricultural, education and the fishing sector and selected using the public workers' list at the ward office.

Inclusion Criteria

Participants were adults who had lived in Kamanga for at least six months before the start of the study, and who gave willing consent to take part in the study.

Exclusion Criteria

Individuals were excluded from the study if they were aged under 18; had a disability that meant they could not communicate; were too sick to take part; or were unable to give consent to participation.

Sample Size

It was decided that 94 people should take part in the survey. This would include six focus groups, each with 12 participants, making a total of 72 people. Thirteen key informants were selected for in-depth interviews, bringing the total sample size to 85 individuals. To adjust for non-response, the sample was increased by 10 per cent, making a total of 94.

Data Collection

Data was collected face to face using guiding research tools that included open-ended questions. Responses were recorded by tape recorder. Swahili versions of the guiding research tools were prepared and piloted at Igombe hamlet in Ilemela District Council before the field work was conducted in Kamanga.

Four enumerators (research assistants) were trained in the study methods and how to use research tools. Before the study started, the supervisors and enumerators paid courtesy visits to the District Council office and the village of Kamanga.

The following methods were used to collect research data:

- Focus group discussions with representatives of the general population, vulnerable individuals and youths.
- In depth interviews with key informants.
- Tape recorders were used during discussions and interviews.
- In addition, the researchers reviewed records from the ward government office, village government office and health facilities, along with reports from the Education Coordinator and Agricultural and Community Development Officers.

Research Tools Used to Collect Data

- Guiding questions for the focus groups.
- Guiding questions for the in-depth interviews with key informants.
- Checklist for the records' review.

Data Analysis

Data was analyzed using the typology method (or content analysis) where information was classified according to observed themes and patterns. (Lofland & Lofland, 2010) Responses from unstructured focus group discussions and documentary analysis were subjected to content analysis so they could be coded, counted and analyzed.

Content analysis was performed using the following steps:

1. Transcripts of the tape recorded information were made.
2. The transcripts were read and notes were made in the margins when interesting or relevant information was found.
3. The margin notes were analyzed and the different types of information were listed.
4. Items in the list were then categorized in a way that offered a description or memo of the topic.
5. Further analysis identified if the subject categories could be linked or classed as major categories or themes and / or minor categories or themes.
6. Categories and themes were compared.
7. The above six stages were repeated for each transcript.
8. Once all the transcripts had been examined, all of the categories or themes collected were examined in detail to assess their relevance.
9. Categories were then reviewed to see whether they needed to be merged or alternatively sub-categorized.
10. Finally, researchers returned to the original transcripts to ensure that all relevant information had been noted and categorized.

The results were then interpreted and collated following discussions within the research team, and significant aspects were illustrated with quotations or stories from interviewees.

Quality Control and Quality Assurance

Four enumerators were recruited from Bugando Medical Center and trained in the data collection techniques required for this specific study. They then collected data under the close supervision of the principal supervisor. The supervisor checked the quality of information for each study tool (interviews, focus group discussions and desktop research).

Ethical Considerations

Ethical approval of the study was obtained from the joint Bugando Medical Centre IRB. Permission to conduct the research was also obtained from the district authorities in the Sengerema District.

Confidentiality of the study respondents was maintained by using numbers instead of names. Respondents were informed about the nature of the study and informed consent was obtained from each respondent before their participation in the survey. The information obtained was used only for the purpose of the study and to inform subsequent development projects designed by The Cedar Foundation.

Results Dissemination

The findings of this research were submitted to The Cedar Foundation as the primary user of the information. The summary report will also be submitted to Sengerema District Council's management team for planning purposes, and to members of the Kamanga community.

CHAPTER THREE

Findings

Study Respondents

The study participants were composed of men and women. A total of 110 individuals responded to guiding questions during interview and focus group discussions (Table 1). Of these, 17 were key informant interviews, which is 15.5 per cent higher than expected. Respondents for interview was increased from 13 to 17 because of an additional 4 respondents (2 District Officers, 1 Clinical Officer from Nyamatongo Dispensary and 1 Head Teacher of Mtakuja Primary School).

TABLE 1. Study Participants

Type of study tools		Type of survey participants				Expected Participants	Participants attended	% expected sample
		Sex		Age				
		F	M	Adults ≥ 25 yr	18-24 yr			
KI Interview		5	12	17	0	13	17	130.8
FGD	General Population	39	43	59	23	60	82	136.7
	Vulnerable individuals	4	7	8	3	12	11	91.7
% Sample						*9*		
Subtotal		*48*	*62*	*84*	*26*	*94*	*110*	*117.0*
Total		**110**		**110**		**94**	**110**	**117.0**

1 In and out of school youth

Of the 110 total respondents, 48 (43.6 per cent) were female and 62 (56.4 per cent) were male. In addition, 84 (76.4 per cent) of the respondents were adults aged 25 years and above,

whereas 26 (23.6 per cent) were young people both in and out of school. 11 vulnerable individuals responded, representing 10 per cent of the participants.

Social, Cultural and Spiritual Life in Kamanga

Kamanga has a mix of ethnicities (tribes) and is therefore a cosmopolitan community. It was reported that activities involving all members of the community include: wedding ceremonies; village meetings; burial ceremonies; public holidays for government employees (for example Mei Mosi); the construction of community buildings; and annual tribal meetings (for example, 'Mafogong'o – a day held by the Sukuma tribe where members meet to discuss issues and to settle disputes).

Study participants reported that there are three main religions in the village: Christianity (RC, AIC, Anglican, SDA, and Pentecostal) Islam and traditional religions (Pagani). The main objective of these religions is to bring people together with a focus on peace, love, harmony and healing. Religion has also played a major role in shaping the community in terms of encouraging development. It was said that the growth of mainstream faiths had weakened old traditions such as witchcraft, and brought about a decrease in behavior that was perceived as evil or wicked, such as drunkenness, the use of illicit brew and bhang. Religions were also seen as sources of support for vulnerable individuals such as orphans and elders. One respondent said:

> "At Kamanga there are Christians and Muslims. There are many Christians who belong to a number of dominations such as R.C, AIC, Anglican, SDA or Pentecostal. The main role of religious faith is to bring peace among the people 'because Jesus said 'Peace should be upon you'"

Family Life and Gender Relations

When asked about parenting, respondents stated that the use of corporal punishment was common. Punishments include: beating with sticks; sending children to bed without food; chasing them out of the home, and giving them additional work such as a section of farmland to cultivate. Participants referred to some punishments as being unacceptably severe. These include being chased out of the home; extreme verbal abuse; severe beatings; and burning children's hands. When asked about whether or not children has the opportunity to play, survey participants said that sports activities were limited to school hours, where children often played

sport unsupervised although teachers did sometimes oversee and coordinate the activities. Outside school, children are expected to help their parents with housework and/or economic activity. Upon returning from school, the children are given household chores (especially girls) and/or made to engage in micro-business activities. Respondents confirmed that parents rarely play with their children.

According to respondents, historically, the women of Kamanga have not enjoyed equal status with men.

As in other African communities, the women are expected to take on the responsibility for caring for the whole family: ensuring that everyone has enough food; overseeing children's progress at school; chopping firewood; fetching water, and washing clothes. In addition they are expected to contribute to the family income by participating in agriculture and/or in micro-businesses such as selling groundnuts, cooked food and vegetables. Male occupations in Kamanga include fishing, agriculture, carpentry, house-building and working on the ferries.

However, it was reported that there have been some improvements on gender equality in recent times. Both men and women join forces to work in agriculture and undertake entrepreneurial activities.

Regarding politics however, one male respondent said:

> 'Although women do participate in politics, they often lack confidence and rarely fill leadership positions. For example, in the recent local government elections, only one lady competed for the village chairmanship position in Kamanga Village. However, she was defeated. Most women compete for positions which require a woman representative [as opposed to competing for a role that could be undertaken by a man or a woman].'

In terms of gender equality, respondent stated that in some cases, a fair system is in place. For instance, respondents drew attention to the fact that if a man dies, his wife will continue to own the property. On the other hand, female respondents reported that within some families, men

will rarely involve women in decision-making and have the final say on the distribution of income. One lady told researchers:

> 'Women might receive a small portion of the product of their work; however, some men give nothing at all to their spouses. If you insist on receiving your share, you may end up being battered.'

Health and Healing Services

Kamanga has two medicine shops, three traditional birth attendants and twelve traditional healers. There are no health facilities such as dispensaries or hospitals. In the past there was a maternal health facility which provided delivery services, but this was dismantled to make a way for the electricity power line. Dispensaries at Nyamatongo and Karumo are supposed to serve Kamanga, but they are too far away to be reached: few residents have enough money to pay the transport costs. They are also unable to afford the price of consultations and drugs. One respondent said:

> 'I walked to Karumo dispensary for two hours. On arrival I was asked to pay Tsh 1000 (equivalent to US $0.6) for the Antenatal Card, even though the card states '*not to be sold*' because of the government policy of free services for pregnant women.'

In addition, the quality of service is poor compared to those available in Mwanza because there is a shortage of staff, and drugs are frequently out of stock. Hence some community members who can afford it opt to travel to Mwanza or Sengerema, even for routine health services such as antenatal care. When someone gets sick during the night it is very difficult to receive healthcare because there is no transport to Mwanza City at that time. It was reported that people in Kamanga pray not to get sick. `One focus group participant said:

> '…. there was a pregnant woman who died due to lack of health services. This was because of the lack of transport during the night to get her hospital in Mwanza City because the ferries do not operate at night time….so the health services situation in Kamanga is very bad.'

KI number 1 reported that 75 per cent of pregnant mothers use traditional birth attendants for delivery. On the other hand, the lack of health facilities means most people buy medicine locally from the medicine shops and others are attended by traditional healers when they get sick. FGD 3 participant number 3 reported that other pregnant mothers who can afford it go to Sengerema Hospital for delivery services including pre-birth accommodation (maternity home).

Top Ten Diseases in Nyamatogo Ward

According to data from the Nyamatongo dispensary, the following are the ten most common diseases/health issues in the area:

1. Malaria
2. Upper respiratory tract infections
3. Diarrhea
4. Fungal skin infections
5. Intestinal worms
6. Pneumonia
7. Non-fungal skin infections
8. Eye diseases
9. Ear diseases
10. Genital ulcers

More research is needed to obtain details about the specific types of diseases and infections affecting people. However, overall, dispensary records indicated that malaria, diarrhoea related conditions and pneumonia have the highest mortality rates.

Top Ten Diseases in Karumo Ward

Karumo dispensary reported that the ten most common diseases in the area are:

1. Malaria
2. Upper respiratory tract infections
3. Non – fungal skin infections
4. Intestinal worms

5. Pneumonia
6. Fungal skin infections
7. Eye infections
8. Ear diseases
9. Anemia
10. STI

According to these records, the main causes of death are anemia, TB, HIV/AIDS and malaria. The lack of a health facility in Kamanga makes it impossible to know which diseases occur most frequently among its residents. However, the Village Executive Officer reported that malaria, HIV/AIDS, bilharzia, typhoid and urinary tract infections were common.

Education and Training

The majority of Kamanga residents are educated to primary school level. There are two primary schools in the village, both housed on the same compound. One school runs lessons in the morning, and the other runs lessons in the afternoon in the same classrooms. The community members felt that the two-session systems failed to give adequate learning time.

Respondents stated that in Kamanga, the quality of education provided to the school children is unsatisfactory. Prospects for secondary education are very remote, since there is only one secondary school in the ward jurisdiction area, and this is situated in Nyamatongo village. In addition, there is a college in Karumo Village (Karumo Folk Development College - see Table 2). This college provides vocational education and training in carpentry, tailoring and agriculture. There are no opportunities for vocational training for those not selected for secondary education.

One respondent commented on the quality of education by saying:

> 'I was not happy with my son's education. He exhibited poor performance in both reading and writing. Surprisingly, he passed examination to join the local secondary school.'

According to respondents, there are various reasons for the poor quality of education in Kamanga. Pupils are made to share a small number of classrooms and some rooms are only partially constructed which results in a very crowded atmosphere. Two primary schools share one building but the number of children in the village is sufficient to fill three schools. The community started to build a second primary school at Mtakuja hamlet last year but it is not yet complete. Pupils are often sent home for various reasons, including teachers not turning up to teach. Some pupils live in Mwanza and commute to Kamanga, wasting a lot of time on travel.

Table 2: Summary of Existing Schools in Nyamatongo Ward in 2014

	Name of School	Number of Teachers			% Left school	Students enrolled			Ratio for boys to girls		Pregnancies
S/N		M	F	Total		M	F	Total	Enrolled	Completed	
1.	Nyamatongo P/S	5	12	17	8	403	428	831	1:1	1.2:1	1
2.	Karumo P/S	8	6	14	6	306	308	614	1:1	1.4:1	-
3.	Irunda P/S	6	7	13	5	438	390	828	1:1	1.6:1	-
4.	Nyalwambu P/S	7	4	11	6	238	243	481	1:1	1.2:1	1
5.	Ipandikilo P/S	11	5	16	2	341	348	689	1:1	1:1	-
6.	Kamanga P/S	8	5	13	4	355	371	726	1:1	1.3:1	-
7.	Lusese P/S	5	9	14	4	296	622	918	1:2	1.2:1	-
8.	Mtakuja P/S	8	6	14	2	348	373	721	1:1	1.1:1	-
9.	Karumo FDC	8	1	9	20	37	43	80	1:1	1.6:1	1
10.	Nyamatongo S/S	7	21	28	38	344	282	626	2:1	1.2:1	7

Source: Report by the Ward Education Officer for Nyamatongo Ward

The drop-out rate for girls at primary school is reported to be as high as 40 per cent; reasons include early marriage and teenage pregnancy. Boys also drop out frequently, mostly to take part in lake fishing.

Kamanga primary school has 13 teachers (5 females and 8 males) for a total of 726 students (371 females and 355 males). The ratio for boys to girls enrolled is 1:1 and completed is 1:3.1. Mtakuja primary school has 14 teachers (6 females and 8 males) for a total of 721 students (373 females and 348 males). The ratio for girls to boys enrolled is 1:1 and completed is 1:1.1. Nyamatongo Secondary school ,which serves Kamanga village, has 28 teachers (7 males, 21 females), 621 students (344 males and 282 females) and the ratio of boys to girls enrolled is 2:1 and completed is 1:2:1 and the number of pregnancies in Nyamatogo ward is higher at

Nyamatongo Secondary School (7 pupils). No pregnancies were reported at Kamanga and Mtakuja Primary School in the year 2014.

Theoretically and according to government policy, girls and boys in Kamanga have equal access to education. A report from the WEC' office also indicated that the ratio of enrollment is 1:1 in primary school (See table 2). However, although school enrollment figures for girls and boys are roughly equal, far fewer girls actually complete their school education. Participants said possible reasons for this were: poverty resulting in parents not being able to sustain paying the costs associated with schooling; the fact that girls are expected to help their mothers with chores after school and so fall behind with their work to the point that they drop out; and early age pregnancy. For example, one widow claimed that "many girls get pregnant and don't perform well at school because of their many responsibilities at home. They have to help their mothers with the cooking and other home activities. We women do double the work - we undertake both housekeeping activities as well income generating activities even though the man is the one who will be recognized as the owner of everything."

Another key respondent said:

> 'The biggest problem related to dropout rates is the high pregnancy rate. When you look at recent reports, the number of girls who completed their primary education is scary. They started at a hundred and something but they finished in tens.'

Such pregnancies are said to occur because the men involved provide support, either material or financial, in exchange for sex. Girls from poor socio-economic backgrounds will often see this as the only way of financing their education or having essential things such as adequate clothing. Respondents suggested that this is a serious and common problem. For example, a respondent stated that '…..my daughter was about to take her grade 7 qualifying examinations when we realized she was pregnant. I was frustrated by the event. Such occurrences are common in our community and they result into a low level of girls' education.' Another key respondent said:

:

> ‘The issue of school aged pregnancies is actually more significant than indicated in the above data [ref. table 2]. It is difficult to determine the pregnancy rate because some families do not disclose a pregnancy. For instance, sometimes when a girl gets pregnant, her family request a transfer to another school. However, rather than attend their new school, they drop out altogether. The rate which has been reported in table 2 is based on the number of girls who report that they are pregnant but continue with their schooling. Those who drop out because of pregnancy are not recorded.’

The information from this key informant corroborates the observations made by the study participants in the focus group discussions.

Regarding the children’s future, the community members said that they would like to see their children being well educated and having more opportunities for primary and secondary education as well as vocational training.

Entrepreneurship

When asked about opportunities for entrepreneurship, respondents reported that there is a limited amount of small scale entrepreneurship in Kamanga. The existing opportunities focus mainly on fishing and selling fish products and vegetables, and other micro-businesses. The main barriers to business development are lack of capital and entrepreneurship skills. Although fishing and agriculture are the main economic activities, equipment and tools are still very basic. Unlike many communities in other semi-urban settings, people said that Kamanga has no access even to small loans from financial institutions and services.

‘Despite the fact that we are so near to Mwanza City, no individual has ever been able get a loan from a financial institution because of the credit conditions imposed on them’ commented one participant in FGD 2. There are no banks in Kamanga and villagers lack financial management skills. According to respondents, a few individuals had previously set up a small

group savings scheme (a Savings and Credit Co-operative Society), but the money was misappropriated by the group leader and the matter is still being handled by the courts. ‘The few surviving group members have few savings left, if any, due to the small amount of cash saved. Therefore the group no longer has a financial base,’ one participant told us.

Economic Activity

Study participants reported that fishing and agriculture represents the main source of income for members of the Kamanga community. Many people are involved in fishing or in trading fish products, including the running of food stalls around the ferry docks. Participants expressed concern about the diminishing fish stocks attributed to the use of poisonous substances (bombs and poisonous chemicals such as thiodane) which kill large quantities of fish in the lake. Overfishing using fine mesh fishnets also depletes fish stocks as these kill a significant number of younger fish.

Other members of the community are involved in growing vegetables and staple foods such as maize and rice which are sometimes traded for cash. A few are employed in Mwanza and some by the ferry companies. However, most people earn only a subsistence income from these income sources.

Respondents claimed that farming does not produce valuable returns as the land has been severely degraded through poor farming practices. Climate change also appears to be a factor: participants reported that there are fewer rains than before so crops dry out and die before they can be harvested. Although Kamanga is close to the lake, irrigation is not practiced, mainly due to the lack of capital and the need for appropriate equipment.

Respondents also stated that there is no permanent, reliable market in Kamanga. Sales are based on informal relationships between willing buyers and sellers. Access to other nearby markets (for example in Mwanza) is poor and producers have no control over prices. One participant said: ‘You harvest your crops and send them to the market but in the end, it is the buyer who determines the price.’ Another added: ‘If you insist on your price you may end up not selling anything and return home empty handed.’

Access to Food

Residents of Kamanga stated that they do not have sufficient land for the cultivation of food. Productivity has declined due to over-cultivation, a shortage of tools and fertilizer, and climate change. Only a few families can afford to produce enough food for a whole year; most are self-sufficient for between three and five months of the year. After that, residents purchase food. Most people can afford two meals a day but it was reported that about one third of the residents can only afford one meal per day. People said that when food is short, preference is given to vulnerable residents, such as children.

'We do not talk of a balanced diet over here,' said one elderly man in a focus group discussion. Participants said most residents had a diet made up principally of maize and sardines (*dagaa*) whereas larger fish are sold for income purposes. According to the one of the key respondents, the main staple food crops cultivated by the Kamanga community include cassava, maize, beans, sweet potatoes. The majority of households do not eat fruit or vegetables as they are difficult to access and many don't know how to prepare them .

According to respondents, only a few people own productive land and often, they rent it out to receive extra income. Some families end up selling some of the food they produce in order to cover other expenses, including children's school fees. When families have no food left they have to sell their labor in order to buy food from the market. If they cannot find work that pays enough, they risk going without food.

According to the ward agricultural officer the projected food requirement in the year 2014 for the Kamanga Community was about 130.65 MT for starchy foods and 75.2 MT for legumes such as beans and peas. However, the actual harvest was 63 MT for starch foods and 26 MT for legumes, giving a shortage of 67.5 MT and 42.2 MT of starchy food and legumes respectively – a shortfall of more than 50 per cent. This seems to have been a common pattern in recent years.

KI 2, KI4, 3 and FGD on agriculture were all in agreement: harvests would sustain the households (on average) for three to six months of the year. Commenting on the food availability in Kamanga, KI 2 and KI 3 said:

'.....transforming the Kamanga community with the current economic activities will not be easy as most of the activities are only for subsistence purposes...agricultural products for example, are consumed without surplus. Moreover, the land for cultivation is not enough for the community, they use poor farming equipment and tools and, of late, crops have been affected by diseases and insects such as the cassava meal bug ....'

Sources of Energy

The study participants reported that the main source of energy is firewood collected from a few surviving trees and bushes. Some people also use charcoal. The prospect of the community using clean and environmentally friendly energy like electricity or solar power is very remote because of the cost of the upfront initial investment. For example, a local solar power provider in Mwanza (Zolar) quoted a minimum of TSH 2,500,000 to install solar panels in a home, which would be unaffordable for many.

Respondents did comment on the fact that electricity had recently been installed in Kamanga. However, as one participant told us:

'… electricity is reserved for a few rich people. Most residents have no electricity since the power line is a long way along the main road and you need at least two poles to connect it to your house. It is an expensive investment. Not many Kamanga community members would afford Tsh 600,000 (equivalent US$355) for the connection. The further your house is from the main line, the more you have to pay.'

Water Supply

The researchers were told that there is no tap water in Kamanga. Sources of water include shallow wells, springs/traditional wells, and the lake. The average time needed to collect one bucket of water is between one and two hours, most of it spent walking. There are only few shallow wells and springs which provide water and these are useful mainly during the rainy seasons; in the dry season these mostly dry out. The main water source for the Kamanga community is the lake although respondents indicated that the lake water is unsafe for drinking. It is polluted with sewage, petroleum products and poisons used for fishing. About five years

ago, each hamlet had a shallow well with a pump but most of the metal parts belonging to the pumps have been stolen and the water in the wells is salty. The only shallow well with a water pump now is in the Chemagati Hamlet.

Villagers use various methods to turn lake water into safe drinking water. These include: boiling, which is practiced by about 30 per cent of households; the use of water guard tablets; leaving water inside closed vessels; using the three pot systems whereby water is stored in closed pots for at least two days and moved from one pot to another; and filtering water through a cotton cloth. Some households do not treat the water at all. One participant said: 'In my house I just take water as it is for drinking; I don't boil it.'

Environmental Sanitation

According to respondents, sanitation in Kamanga is unsatisfactory. Although over 70 per cent of the residents have use of a latrine, one respondent said: 'About 20 – 30 per cent of households have no toilets at all. They practice open defecation in the bushes or the lake. In some circumstances they use fields that are close to people's houses.'

According to official records, toilet coverage is about 40 per cent at Karumo village and about 50 and 60 per cent in Nyamatongo and Kamanga respectively. Most of the toilets available were reported to be pit latrines. VIP and modern latrines make up about 15 per cent of toilet facilities given these are too expensive for the majority of residents. One of the key respondents said: 'Some people do not use toilets even where they are available. Health education is a high pre-requisite for any environmental project here in Kamanga.'

Additionally, there is no proper sewage or household waste management system in Kamanga and few households have pits for the disposal of general waste. This tends to be disposed of randomly, including into the lake.

Vulnerable People

Vulnerability is defined in this report as being: 'the risk of adverse outcome, such as impoverishment, ill health, social exclusion. It reflects not only the likelihood that an untoward event occurs, but also lack of capacity to cope with it '(REPOA, 2007). Although no formal method was used to identify vulnerability in this study (future projects will look to use structured vulnerability assessments), study participants identified vulnerable people in Kamanga as being orphans, widows, elders and people with disabilities. Respondents said that vulnerable individuals face multiple challenges and do not necessarily get support beyond that offered by their families, neighbors and other well-wishers.

Some participants recognized that many vulnerable individuals have skills and potential and felt that they should be supported in developing this. However, there has been no assessment of their capabilities to date. The survey participants also reported that despite there being significant numbers of vulnerable people in Kamanga, they are not often involved in decision-making processes. One disabled individual from FGD2 said that he had good carpentry skills and that only his legs were disabled; otherwise he could work like anyone else. Other FGD participants said vulnerable individuals had skills that included tailoring and knitting. However, five people in FGDs 2, 3 and 4 thought that people with disabilities were just helpless individuals, without any skills, dependent on others such as their relatives and neighbours.

Participants suggested that vulnerable people would be better able to access support if they formed small groups so that they could, for example, access loans from financial institutions. A participant in the youth FGD said: 'we would like the ferry companies to set aside some of their revenue for the support of vulnerable individuals as part of their Corporate and Social Responsibility.'

Strengths, Weaknesses, Opportunities and Threats (SWOT) in Kamanga

Reported strengths in Kamanga include: agriculture; fishing and proximity to the lake; livestock keeping; proximity to Mwanza; electricity in some parts of the village and micro-businesses.

Reported weaknesses in Kamanga include: no reliable health services; shortage of teachers and school buildings; low formal education levels; poor sanitation; shortage of safe water extreme poverty; lack of employment opportunities for youths; shortage of land and soil/land

degradation; lack of market to sell produce; fluctuating market prices; lack of working tools for carpentry; lack of modern skills and technology for improvements to agriculture and energy sources; droughts and sometimes floods; and illegal fishing practices.

Opportunities for development (based on current strengths) in Kamanga were reported to include: using the lake for irrigation to improve agriculture and vegetable gardening; the vocational training college; improvements to the primary and secondary schools; using the skills and labour of the Kamanga community to carry out development projects. Participants felt that proper use of these opportunities could transform their community. They also felt that the ferry companies should contribute a proportion of their revenue to facilitate social services in the community.

The main threats (and challenges) to positive change and development activities include: a lack of capital to make improvements; a lack of knowledge and expertise in how to manage and facilitate positive change; a lack of education and training in entrepreneurship; individuals prioritizing their own interests and sabotaging development projects for personal gain; theft of equipment when it is installed for the benefit of the community.

The study also asked the participants to identify three priorities for developing Kamanga. Healthcare was found to be priority number one, followed by educational opportunities for the children, both primary and secondary; and vocational and skills training for the youth. A market for agricultural products, and safe water had equal weight in terms of priorities. Other things considered important were family planning, environmental health education and the construction of roads.

CHAPTER FOUR

Desktop Research

After the survey, a desktop research exercise was undertaken to verify the information provided by respondents in the survey, and to place this into a wider a context. This exercise involved the analysis of academic journal articles and statistics, and the information obtained was used further explain and add to the survey findings.

Social, Cultural and Spiritual Life

According to Christopher (2000), traditional Africans have shared the basic instinct of sociability with the rest of humankind for a long time. Generally, they live together and form a community, sharing a common life. Members of the same kindred or clan could in the past distinguish themselves by their proficiency in a particular trade, skill or profession. Traditionally in Africa, community is much more than a simple social grouping of people bound together by reasons of natural origin and/or deep common interests and values. The invisible members, especially ancestors and spiritual beings are perceived as being powerful and far superior to human beings. Their reality and presence in the community is duly acknowledged and honored, and believed among various traditional African groups. The same author also puts forward an emphasis on the role of religion as central to the promotion and realization of harmonious relationships among individuals and the community. However, Maro (2010) found that African culture is under stress from incursions of modernity, relocation in habitat and/or pecuniary needs; and it is changing rapidly. The changes occur by assimilation (or mimicking) of alternative cultures, leading to an adjustment incorporating new elements such as new languages or axioms, dress, religions, tastes, foods and/or the glorification of leisure over hard toil.

But some of the cultural practices in Tanzania still remain, including: traditional artistic forms such as folklore, dances, drumming, recitation and rituals; religion and superstition; the philosophy of Ujamaa (familyhood or collective work); forced labor; and land alienation - just to mention a few (Samwiterson, 2011).

According to a recent report by Shadows of Africa (2014), one third of Tanzanians are Christians and another third are Muslim. The remaining third pursue one of the numerous

indigenous religions. In rural places, some people express their faith in an animistic religion. Hinduism and Buddhism are also found among the members of the Asian minorities**.** Many Tanzanians request the help of diviners and traditional healers whereby they give their children an additional Christian or Islamic name. This is mostly a name from a grandparent and symbolizes a relationship with the spiritual world of the forefathers**.**

Family Life and Gender Relations

Tanzanian society is a male-dominated society (Centre for Intercultural Learning, 2014). Men occupy most of the high positions and are also in charge of social decision-making. Men are still regarded as being the heads of families as well as being the main providers. However, the number of women in the work place has increased recently and it is becoming rare to discriminate against women professionally. This is due to the government introducing a series of laws and rules, implemented by a number of institutions, to defend and protect women's rights in the work place.

In a global analysis of gender roles, Francoise and Pariyat (2011) found that gender inequalities have a significant impact on the social life of any community. Attitudes towards gender can reinforce the submissive roles of women, cross-generational sex, concurrent partnerships and gender-based violence. Interventions that specifically target women can influence a wide range of activities. These include: behavior change communications; promoting sexual and reproductive health; promoting access to HIV treatment and care; protection against gender-based violence; strengthening health and community systems; building supportive environments; welfare and rights support including advocacy and training for women's empowerment; life skills for young women; and training and raising awareness of health providers on women's issues.

Healthcare Services

A report by the Economic and Social Research Foundation (2013) submitted to the United Republic of Tanzania President's Office Planning Commission found serious challenges facing healthcare services in most areas of Tanzania. These included: scarcity of medical practitioners; lack of drugs; fake and unsuitable medicines, and a shortage of hospital diagnostic equipment**.**

Education

The status of education has not been stable in Tanzania, leading to unsatisfactory examination results (Laddunuri, 2012). In some schools, especially the community secondary schools, the majority of the students have either failed their exams, or have badly performed, limiting their opportunities for further studies. Laddunuri reveals in a study that the percentage of students passing their exams between 2005 and 2010 declined continuously from 82.3% to 50.74%. Many factors were found to be responsible for the students' failure. For example, the majority of teachers were unqualified, there were poor infrastructural facilities in schools, there was a lack of books in the school library, and frequent changes to the curriculum meant that teachers could not keep up to date with what they were supposed to be teaching.

Economic Activity

The livelihood sources of the majority of inhabitants of the Sengerema District are fishing, agriculture, livestock keeping and small business enterprises, with agriculture being the main pillar of the district's economy (Sengerema District, 2014). Currently, the contribution of agriculture to the District GDP is estimated at 70 percent while more than 75 percent of the labor force relies on agriculture for their livelihoods.

Research in Kenya by Paul (2011) found that post-colonial governments in East Africa in general have pursued various policies, programs and projects intended to optimize the utilization and management of fisheries, environmental protection and economic development of the Lake Region. Fishing was one economic activity among many engaged in pre-colonial lake society.

A socio-economic profile of the Mwanza region reported by Msekela, (2008), the Regional Commissioner, shows that the economy in Mwanza is dominated by smallholder agriculture employing about 85% of the region's population. However, the expanding fishing sector is a significant contributor to the economy. Indeed, fishing on Lake Victoria contributes 7% of regional economy and in 2011 Mwanza region had 52,942 fishermen and 14, 480 fishing boats and canoes. Mining and livestock sectors also command a recognizable share in the economy of Mwanza region. According to the Mwanza regional commissioner report, an average of 80,666 pieces of hides and 2,827 pieces of skins are produced annually from livestock.

Access to Food

Major food crops in the region include maize, cassava, sorghum, millet, sweet potatoes, paddy and legumes. Maize, cassava and sweet potatoes constitute about 71% of all food crops grown in the region (Msekela, 2008).

Regarding access to food, Richard (2012) reports the following findings:

- Rural households are more exposed to food insecurity than urban households.
- Food insecurity is closely linked to poverty. Households below the poverty line are more likely to be food insecure than other households. Indeed, the zones with the highest prevalence of people living below the poverty line also exhibited the highest proportion of food insecure households.
- Overall, between the two survey phases, food energy intake per capita reduced slightly but the diversity of the diets consumed by Tanzanian households improved notably.
- Food shortages were more commonly reported by households situated in Tanzania's drought-prone bimodal rainfall zone (north and west) than those in the unimodal zone (south and east).
- Correspondingly rural households in the bimodal rainfall zone were more likely than their unimodal counterparts to report shocks such as water shortages, food price rises and drought.
- The highest rate of food insecurity was found among households whose income mostly came from money transfers, crop production and a combination of agricultural incomes. The more farming households depend on their own produce, the greater their vulnerability. Of households which derived more than 90% of their food energy from own-production, 22% were classified as food insecure (as opposed to 8.3% nationally).

On the other hand, Richard (2012) reported that overall, Tanzania's food security situation appears to be improving. But food security gains are not matching national economic gains. Richard recommended that the country's poor farming households need better livelihood support such as access to credit and training so they can improve their agricultural inputs and techniques, increase yields and alleviate their poverty. Small farmers reliant on their own-produce for consumption should also be trained to cultivate a more diverse and nutritionally rich selection of crops.

A study by Enns (2013) into food access and food security in the Sengerema District found that 75 per cent of the population depended on agriculture as its primary source of income. However, only 2 per cent of the farmers in the district had titles to their land. In Tanzania, the government owns all of the land, but its citizens may obtain certificates for the land they use, enabling them to receive compensation if their land is seized. Without land rights, farmers often lack the confidence to invest in and improve agricultural productivity.

In 2010 World Renew's local partner, SISA, began educating farmers on the process of getting land titles and building their agricultural skills so they could increase their food security.

Clean Water and Environmental Sanitation

A study conducted in the Sengerema District by Stefan Pals (2011) showed that people living near the shore of Lake Victoria rely on unsafe water collected directly from the lake. Others use so-called 'traditional' water sources, namely small fens and puddles that are often very unclean.

Vulnerability

Vulnerability is defined as: 'the risk of adverse outcome, such as impoverishment, ill health, social exclusion. It reflects not only the likelihood that an untoward event occurs, but also lack of capacity to cope with it' (REPOA, 2007).

Nathan (2009) distinguished between two features of vulnerability: *exposure* and *insufficient capacities*:

- *Physical Exposure*: presence and density of the people, habitat, networks, goods and services in risk zones, defining potential losses or damages, both human and non-human (stakes); and
- *Socio-Ecological exposure*: human induced ecosystemic perturbations aggravating the natural hazard – such as deforestation, land degradation, street pavement, some engineering practices, climate change, etc.

Furthermore, "insufficient capacities to prevent, prepare for, face and cope with hazards and disasters" were defined as:

- *Physical Weakness*: physical incapacity to resist or recover from a hazard's impact;

- *Legal Vulnerability*: weak state of the legislative and judiciary regulations to prevent, mitigate, prepare for, face and recover from disasters;
- *Organizational Vulnerability*: weak state of the organizational disposals, at all levels, to prevent, mitigate, prepare for, face and recover from disasters;
- *Technical Vulnerability*: inadequate knowledge and/or use of risk management techniques;
- *Political Vulnerability*: weakness of the political powers, their legitimacy and control. Inadequacy of the control schemes, policies and planning, or broad political conditions;
- *Socio-economical Vulnerability*: socio-spatial segregation, large inequalities of wealth and of access to the security disposals, misery, anomie and social disorganization, poor social position and social isolation of exposed people, existence of higher social risks undergone by people;
- *Psychological and Cultural Vulnerability***:** inadequate security paradigm or risk perceptions; cultural anomie or weakness; attachment to risk zones or risky behavior, non-willingness or incapacity to protect oneself.

Nathan (2009) concluded that “the overall vulnerability of an element (or stake) to one or several hazards is a mix of these particular vulnerabilities.

CHAPTER SIX

Discussion

This chapter provides a discussion of the research findings and places them in the context of the literature reviewed in the desktop research. This section also, where appropriate, uses feedback obtained from a 'follow-up' community event held on 30th January 2015, bringing together the research team, The Cedar Foundation, community member representatives, community leaders and the district leadership. About 54 people attended the event. The objective of this event was to give feedback to the community of what the research team had found from the 17th to 22nd Dec 2014, to verify and where appropriate amend the information, and to gather any additional details from the community. The research findings were therefore presented and participatory discussions were held. At the event, community members agreed with the priorities identified in the survey findings and so much of the discussion focused on health, education, water and entrepreneurship.

Social and Cultural Life

The word culture can be used in many different ways. Sometimes people use it to only refer to expressive arts (music, dance, and visual arts) and religious ways of living; sometimes people use it to generally describe the way of life of a group of people. The Kamanga community does have social and cultural practices which bring people together and allow them to live together in harmony.

These findings correlate with other findings in Tanzania as reported in a study done by Samwiterson (2011). Some of cultural activities practiced in Tanzania were mentioned to be dances, drumming, recitation, religion and rituals. (Samwiterson, 2011). However Tanzanian culture is influenced by modernity and so is changing rapidly (Maro, 2010).

Family Life and Gender Relations

Parenting methods were explored through the survey, including how parents discipline their children. It was found that the majority of parents in Kamanga do punish their children, and that corporal punishment is common. Some respondents found the more severe types of punishments to be unacceptable.

According to the survey, men and women in Kamanga do different types of work and women carry out the majority of the household tasks. Gender-based violence, especially violence to women by men, was said to exist in Kamanga.

Other studies in Tanzania yield results which correlate to these findings. Tanzanian society is a male-dominated society (Centre for Intercultural Learning, 2014). Men occupy most of the high positions and are in charge of social decision-making as well. Men are still regarded as head of the families and main providers. However, the number of women in working places is said to have increased recently.

In school, boys achieve more highly than girls, increasing their opportunities for secondary schooling and employment later on. The findings of this study correspond with the findings of gender role analyses elsewhere in Africa, and a number of interventions aimed to empower and educate women are currently being delivered across the country as a result. (Francoise and Pariyat, 2011).

Health and Healing Services

The general consensus in Kamanga is that there are no reliable essential health services. The dispensaries at Karumo and Nyamatongo are too far away and offer a poor quality of service due to shortages of drugs, equipment and staff. The Economic and Social Research Foundation's report on health services in Tanzania, submitted to the United Republic of Tanzania President's Office (2013), indicates a comparable situation, reporting that the serious challenges faced by health care providers range from scarcity of medical practitioners and drugs, through to the phenomenon of fake and unsuitable medicines and a lack of hospital diagnostic equipment**.**

Community members at the follow-up community event in January mentioned that there was an unfinished building located in the Kamanga B hamlet that was supposed to be a health facility. However, the building was not completed because of a dispute about its ownership. The case is still in court and until it has been resolved, the building cannot be used. Many participants were understandably keen to see the conflict resolved so that the building could be brought into use. However, it was also pointed out that this building is too small for the community anyway, and

that access to it is problematic. It was suggested that another site should be identified to enable the construction of another building.

Education and Training

According to the survey findings, educational attainment in Kamanga Community is low. The majority of children only receive primary education, drop-out rates are high and the quality of education provided by the school is not satisfactory. During the follow-up community event, people voiced concern about the quality of education in Kamanga, the distance the children have to travel to get to school and school infrastructure. However studies show that poor quality of education is a general problem in Tanzania. Many children have been failing at different levels of education (Laddunuri, 2012). This indicates that there are some systematic problems that should be addressed as well as addressing local problems.

On a local level however, feedback at the follow-up community event suggested that the completion of the second primary school would be beneficial. There were also proposals to construct a third primary school at Chemagati Hamlet, and to aim to have a maximum of 40 pupils in each class. An integrated education system was also recommended, whereby a nursery school and school for disabled children could be located within the same compound of the one the primary schools.

Entrepreneurship

The survey findings indicated that entrepreneurship and small business opportunities were limited mainly to selling fish related products and any surplus agricultural products. However, people stated that even this was difficult due to a lack of skills, expertise and equipment. At the follow-up community event, community members suggested that training in entrepreneurship skills and facilitated access to capital from a range of sources including from not-for-profit organizations would support the people of Kamanga in their ability to run businesses successfully. The need for up-to-date fishing and agriculture tools was also emphasized, as was the importance of irrigation.

Economic Activity

Kamanga's main economic activities are fishing, agriculture and micro-businesses. These economic activities generally provide just enough to sustain families in Kamanga. However, the

majority of people can only afford two meals per day in a six month period. Moreover, people do not have enough capital to buy good-quality, modern fishing materials or agricultural tools, or to invest in their businesses. In addition, there is no adequate local market where people can sell any surplus produce. This finding is similar to the findings in a study done by Paul (2011) in Kenya. A study of Luo people who reside close to lake found that despite being fishers, they integrate this activity with agriculture, hunting, livestock keeping and trades. When agriculture fails due to poor soil they are able to rely more heavily on fishing. The study also reveals that the main constraint of fishing is the lack of markets to sell their fish at (Paul, 2011).

Access to Food

The survey results indicated that families in Kamanga do not have adequate access to food. This has been attributed by some to climate change, resulting in less rainfall. Lack of capital to buy equipment to irrigate farms using lake water was also mentioned. Some individuals are engaged in fishing but are not able to catch enough fish due to overfishing and individuals catching younger fish. This in line with the findings obtained in a study done by Richard (2012), who reported that rural households are more exposed to food insecurity than urban households. In general, this study mentions that food security is improving in Tanzania but that support such as training and credit to small scale farmers is needed to improve their yield and alleviate poverty (Richard, 2012).

Water and Environmental Hygiene

The survey found that Kamanga lacked safe drinking water and that sanitation was unsatisfactory. The main source of water is the lake, which is polluted. Similarly, the Secondary Education Development Project II (2010-14) found the critical environmental problems faced by Tanzania today is land degradation, lack of accessible, good quality water for both urban and rural inhabitants, environmental pollution such as water contamination, and loss of biodiversity, habitat and wetlands, along with deterioration of aquatic systems and deforestation.
Stefan Pals' study relating to community management of water in Sengerema district (2011) reached similar conclusions about the tendency of shore-dwelling communities to access unsafe water directly from the lake, and of other residents to be reliant on so-called 'traditional sources', which are often very unclean.

At the follow-up community event, representative from the District Council explained that there

is currently a planned water project in its second phase called the Kamanga- Nyamatongo Pipe Scheme, overseen by the Rural Water Supply and Sanitation program and funded by the Tanzania central government. At the time of the survey, this project was at project feasibility stage, with its implementation expected in July 2015. This project is meant to supply piped water to Kamanga and Nyamatongo villages from Lake Victoria. There are other programs called The Lake Victoria Region Water and Sanitation Initiative (LVWATSAN) and Lake Victoria Water and Sanitation Program but these cover only urban areas.

Vulnerable Individuals

The majority of the vulnerable individuals identified in Kamanga perceived themselves as capable of contributing both to personal and village development activities. However the current support system in place is also vulnerable in that it is weak in handling the needs and concerns of vulnerable individuals. At the follow-up feedback community event, the Sengerema Health District Officer mentioned that the council has a system of identifying people living with HIV/AIDS and planning support for them. However, a lack of funding means that this support is rarely offered to those who need it. Furthermore, there is no formal or recognized way of identifying other vulnerable individuals such as the disabled or orphans, and so they often lack support. These individuals could be resourceful and if they were helped to capitalize on their strengths. This would enable them to build capacity to cope with the disability or any kind of vulnerability they have (REPOA, 2007).

CHAPTER 7

Study Limitations, Conclusions and Recommendations

Study Limitations

Like many other studies, the study was limited by time and by non-response from some participants. Also, the study faced the issue of some individuals such as village elders not being able speak Kiswahili and therefore communicate with the survey team. Most of the information was collected using qualitative methods, and data analysis was done manually without the use of software.

Conclusion

The Bugando survey team concludes that, in light of the survey findings and other research it has undertaken, Kamanga village has great potential for development work in fields such as health, education, water and sanitation, gender health, agriculture and entrepreneurship. The outstanding strengths of the community are the key stepping stones for further development. This is evidenced the presence of a reliable water source from Lake Victoria, open land, electricity, natural solar light, people who are willing to engage into development activities, and political will within Sengerema District Council.

When deciding what development projects to carry out first, consideration must be given to the following priorities identified by the community: first was an introduction of reliable, accessible and affordable health services; second was an improvement in the education system (such as primary schools, secondary schools, vocational training), third and fourth in equal weight were increased access to market and entrepreneurship opportunities, and access to clean and safe water.

Recommendations

From the survey findings, several proposed recommendations have been made by the survey team:

Family Life and Gender Relations

- Providing women with opportunities to access formal education, and equipping them with entrepreneurship and other skills that will enable them to compete for leadership positions.
- Advocating for equity in gender roles in the family.
- Empowering women with opportunities to own property and make family decisions.
- Reinforcing laws related to women empowerment.
- Addressing domestic abuse and violence through community mobilization and raising awareness.

Health

- Introducing health services by building a hospital or a dispensary.
- Improving infrastructure such as roads from Kamanga to Sengerema, and to Karumo, so that villagers can reach health services easily, and to provide access for ambulances.
- Improving access to drugs, medical equipment and increased numbers of medical staff such as clinicians and nurses.
- Educating community members about community health funds and encouraging them to join them.

Education

- Completing the construction of Mtakuja primary school.
- Adding the third primary school.
- Renovating the Kamanga primary school buildings.
- Constructing teachers' houses and recruiting more teachers.
- Purchasing more textbooks.
- Catering for the needs of younger children (pre-school age) by setting up a nursery.
- Catering for the needs of disabled children by building a specialized school for them.
- Ensuring the availability of opportunities/places for the students to join vocational training at Karumo College of development and elsewhere.

It is likely that an improvement in education would also address and improve other issues related to sanitation, women's rights, agriculture, fishing and entrepreneurship.

Economic Activities

- Helping community members access grants or loans in order to raise capital for business.
- Providing modern tools for agriculture and fishing.
- Training individuals in entrepreneurship skills.
- Facilitate the availability of market space in order for people to sell their goods.

Water

- Delivering a project to provide clean and safe water for drinking, such as deep and shallow wells or treated water from the lake. However it is strongly recommended to consult Sengerema District Council about this first to ensure that the plans for the upcoming water project are known and understood so that duplication can be avoided.

Environmental Sanitation

- The provision of health education on the importance of having and using toilets.
- The provision of refuse pits for solid waste.
- The installation of drainage systems for liquid waste.

Vulnerable People

- Helping establish a well-organized system for supporting vulnerable people.
- Assisting vulnerable people in accessing opportunities to develop entrepreneurial skills in order to reduce poverty.
- Encouraging and helping the village government, in collaboration with other partners, to identify and recognize the skills of vulnerable individuals so that they can contribute towards the development of their community.

The Future Plans of The Cedar Foundation

Ultimately, The Cedar Foundation wants to build capacity in such a way that Kamanga residents will be able to take ownership and control of the development of their community. This goal will be achieved at least in part by holding regular meetings with community members, undertaking research and preparing strategic and operational plans. Based on the survey findings, the main focus of The Cedar Foundation Foundation's work is likely to be first and foremost, the improvement of health services in collaboration with the Kamanga community and Sengerema

District Council. However The Cedar Foundation may begin their work with other, smaller projects before attempting larger projects.

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APPENDICES

Study Tools – Focus Group Introduction and Questions

Before the start of FGD and each in-depth interview, the researcher assistants and participants introduced themselves with the following paragraph:

> "We Bugando staff in collaboration with THE CEDAR FOUNDATION Foundation, we are here to discuss some issues concerning your daily living including social cultural, health and economical life. The purpose of this discussion is to get a deep understanding of these dimensions in this village to build a baseline for The Cedar Foundation Foundation to work in and with this community. The information which you give us will be recorded using voice recorder and the information will be for research purpose only and it will be anonymous and that nobody will be named in any report of the survey. Participants have the right to withdraw from the interview or focus group discussions at any time. It has to be understood that the survey is to inform The Cedar Foundation Foundation's work."

Focus Group Discussion Involving General Community Members

1. What are social cultural practices in Kamanga Village? How do you celebrate and express creativity in your community?
2. What are the faith and religious affiliations of this community? What does faith or religion plays in your daily lives?
3. What are gender roles among women and men? Probe: Please describe the different roles of men and women if are there (a) in the home (b) in business and employment (c) in leadership and politics (d) wealth and resources distribution at family level (e) in social and other community situations e.g. education, gender and social violence, access to health, decision making.
4. How do parents/caretakers treat children in case they do mistakes? What forms of discipline or punishment parents think are appropriate? What parents think is a good quality of life for their children? Do children have opportunities for play? What kind of play are they playing?
5. What kind of livelihoods do people have in this community? Probe: What are economic activities performed, what is economic status of the community members? How is access to market after harvest/production?
6. What kind of energy sources you're using in your daily life? Probe: generator sources, TANESCO, firewood, kerosene, gas, solar, etc.?
7. What kinds of financial services are there in Kamanga community? Probe: sim banking, VICOBA, Bank services, Saccos etc.?
8. What is the accessibility of food to people in this community per annum? Probe: sources, variety of food, use of balanced diet, and access to land for food growing?
9. Where do people seek for health services when they get sick /pregnant? Probe: Which people and facilities support health and wellbeing, including health facilities, drug shops, traditional healers, traditional birth attendant and others?
10. What are entrepreneurial and practical skills of the Kamanga community?
11. How people are satisfied with their children's education? Approximate the percentage of education level, primary, secondary, college and universities. What aspirations do you have about your children's education level? What are the challenges for people to be trained or learn new skills?

12. What are sources of drinking water accessible in Kamanga community? Probe: sources - lake, spring, well, rain harvesting water, river/running water, tape water – in percentage? What is the average walking time from household to the nearest water point? How do you make your water clean and safe for drinking?
13. What is the status of environmental sanitation in Kamanga Community? Probe: availability and use of toilets – in percentage (pit toilets or modern toilets), quality of toilet, hygienic behavior of community members, environmental cleanliness -solid waste management, water waste management.
14. What do you think about Kamanga community's SWOC on development? Probe: Provide list of strengths, weaknesses, opportunities and challenges.
15. Are there vulnerable individuals in Kamanga Community? Probe: about age, gender, economic or cultural status of vulnerable individual? Do vulnerable people being marginalized? How do they being marginalized? What are the community opinions on reducing individual marginalization? Are there people doing commercial sex?
16. What skills do you think vulnerable individuals have? Probe: what can they do?
17. How is this community ensuring recognition and fostering development of vulnerable people?
18. How would you like vulnerable people to be involved in improving Kamanga community?
19. List three priority issues/ problems of your concern in Kamanga Community.
20. Do you have any other concern or question which you think we need to discuss in this meeting regarding Kamanga community?

In-depth Interview Guide for Key Informants

Key informants will include village leaders, village executive officer, ward executive officer, village chairperson, influential people, traditional healers, traditional birth attendants, extension officers (e.g. clinical officer, health officer, agricultural officer, community development officer).

1. What kind of activities and celebrations bring the community members together? (E.g. village meetings, weddings or funerals, other kinds of celebration, religious activities, public holidays, etc.)
2. What are the faith and religious affiliations of this community? What does faith or religion plays in your daily lives?
3. What are gender roles among women and men? Probe: Please describe the different roles of men and women if are there (a) in the home (b) in business and employment (c) in leadership and politics (d) wealth and resources distribution at family level (e) in social and other community situations e.g. education, gender and social violence, access to health, decision making.
4. What are the main economic activities done in this community? Probe: Mention the ratio of these activities? List the tools that are used in these activities. What are the challenges in these activities? What are opinions do you have in regard of these activities being able to improve quality of life?
5. What kind of energy sources you're using in your daily life? Probe: generator sources, TANESCO, firewood, kerosene, gas, solar etc.?
6. Are there ongoing developments plans in this community? Probe: what are the development plans on going, that have been accomplished and the future coming plans. List other development stakeholders in this community.
7. What is the accessibility of food to people in this community per annum? Probe: sources, variety of food, use of balanced diet, and access to land for food growing?
8. Where do people seek for health services when they get sick /pregnant? Probe: Which people and facilities support health and wellbeing, including health facilities, drug shops, traditional healers, traditional birth attendant and others?
9. What are sources of drinking water accessible in Kamanga community? Probe: sources - lake, spring, well, rain harvesting water, river/running water, tape water – in

percentage? What is the average walking time from household to the nearest water point? How do you make your water clean and safe for drinking?

10. What is the status of environmental sanitation in Kamanga Community? Probe: availability and use of toilets – in percentage (pit toilets or modern toilets), quality of toilet, hygienic behavior of community members, environmental cleanliness -solid waste management, water waste management.
11. What do you think about Kamanga community's SWOC on development? Probe: Provide list of strengths, weaknesses, opportunities and challenges.
12. Are there vulnerable individuals in Kamanga Community? Probe: about age, gender, economic or cultural status of vulnerable individual? Do vulnerable people being marginalized? How do they being marginalized? What are the community opinions on reducing individual marginalization? Are there people doing commercial sex?
13. What skills do you think vulnerable individuals have? Probe: what can they do?
14. How is this community ensuring recognition and fostering development of vulnerable people?
15. How would you like vulnerable people to be involved in improving Kamanga community?
16. List three priority issues/ problems of your concern in Kamanga Community.
17. Do you have any other concern or question which you think we need to discuss in this meeting regarding Kamanga community?

In-depth Interview Guide to Key Informant Representative for Vulnerable Individuals

1. What kind of activities and celebrations bring the community members together? (E.g. village meetings, weddings or funerals, other kinds of celebration, religious activities, public holidays, etc.)
2. What are the faith and religious affiliations of this community? What does faith or religion plays in your daily lives?
3. What are gender roles among women and men? Probe: Please describe the different roles of men and women if are there (a) in the home (b) in business and employment (c) in leadership and politics (d) wealth and resources distribution at family level (e) in social and other community situations e.g. education, gender and social violence, access to health, decision making.
4. What are the main economic activities done in this community? Probes: Mention the ratio of these activities? List the tools that are used in these activities. What are the challenges in these activities? What are opinions do you have in regard of these activities being able to improve quality of life.
5. What kind of energy sources you're using in your daily life? Probe: generator sources, TANESCO firewood, kerosene, gas, solar etc.?
6. Are there ongoing developments plans in this community? Probe: what are the development plans on going, that have been accomplished and the future coming plans. List other development stakeholders in this community.
7. What is the accessibility of food to people in this community per annum? Probe: sources, variety of food, use of balanced diet, and access to land for food growing?
8. Where do people seek for health services when they get sick /pregnant? Probe: Which people and facilities support health and wellbeing, including health facilities, drug shops, traditional healers, traditional birth attendant and others?
9. What are sources of drinking water accessible in Kamanga community? Probe: sources - lake, spring, well, rain harvesting water, river/running water, tape water – in percentage? What is the average walking time from household to the nearest water point? How do you make your water clean and safe for drinking?
10. What is the status of environmental sanitation in Kamanga Community? Probe: availability and use of toilets – in percentage (pit toilets or modern toilets), quality of

toilet, hygienic behavior of community members, environmental cleanliness -solid waste management, water waste management.

11. What do you think about Kamanga community's SWOC on development? Probe: Provide list of strengths, weaknesses, opportunities and challenges.
12. How did it happen until to be in this situation? Can you explain how the community looks on you? Are there vulnerable individuals in Kamanga Community? Probe: how do you think the community perceives people like you? Which things does community do that you like or don't like.
13. What skills do you think vulnerable individuals have? Probe: what can they do?
14. How is this community ensuring recognition and fostering development of vulnerable people?
15. How would you like vulnerable people to be involved in improving Kamanga community?
16. List three priority issues/ problems of your concern in Kamanga Community.
17. Do you have any other concern or question which you think we need to discuss in this meeting regarding Kamanga community?

Focus Group Discussion with Vulnerable Individuals

1. What kind of activities and celebrations bring the community members together? (E.g. village meetings, weddings or funerals, other kinds of celebration, religious activities, public holidays, etc.)
2. What are the faith and religious affiliations of this community? What does faith or religion plays in your daily lives?
3. What are gender roles among women and men? Probe: Please describe the different roles of men and women if are there (a) in the home (b) in business and employment (c) in leadership and politics (d) wealth and resources distribution at family level (e) in social and other community situations e.g. education, gender and social violence, access to health, decision making.
4. What are the main economic activities done in this community? Probes: Mention the ratio of these activities? List the tools that are used in these activities. What are the challenges in these activities? What are opinions do you have in regard of these activities being able to improve quality of life?
5. What kind of energy sources you're using in your daily life? Probe: generator sources, TANESCO, firewood, kerosene, gas, solar etc?
6. Are there ongoing developments plans in this community? Probe: what are the development plans on going, that have been accomplished and the future coming plans. List other development stakeholders in this community.
7. What is the accessibility of food to people in this community per annum? Probe: sources, variety of food, use of balanced diet, and access to land for food growing?
8. Where do people seek for health services when they get sick /pregnant? Probe: Which people and facilities support health and wellbeing, including health facilities, drug shops, traditional healers, traditional birth attendant and others?
9. What are sources of drinking water accessible in Kamanga community? Probe: sources - lake, spring, well, rain harvesting water, river/running water, tape water – in percentage? What is the average walking time from household to the nearest water point? How do you make your water clean and safe for drinking?
10. What is the status of environmental sanitation in Kamanga Community? Probe: availability and use of toilets – in percentage (pit toilets or modern toilets), quality of

toilet, hygienic behavior of community members, environmental cleanliness, solid waste management, water waste management.

11. What do you think about Kamanga community's strengths, weakness, opportunities, and challenges (SWOC) on development? Probe: Provide list of strengths, weaknesses, opportunities and challenges.
12. How did it happen until to be in this situation? Can you explain how the community looks on you? Are there vulnerable individuals in Kamanga Community? Probe: how do you think the community perceives people like you? Which things does community do that you like or don't like.
13. What skills do you think vulnerable individuals have? Probe: what can they do?
14. How is this community ensuring recognition and fostering development of vulnerable people?
15. How would you like vulnerable people to be involved in improving Kamanga community?
16. List three priority issues/ problems of your concern in Kamanga Community.
17. Do you have any other concern or question which you think we need to discuss in this meeting regarding Kamanga community?

Checklist for Record Review

1. Total population in Kamanga Village (Males, females, adults, youth, children under five) and vulnerable people (elderly, orphans, widows, chronic illnesses and vulnerable children).
2. Types of main tribes in the community (Estimate the percentage of main tribes).
3. Occupations (Not employed- Peasant, Fisherman, business man, fundi – mason, carpenter; employed -Teacher, Health worker, community development officers, etc.)
4. Food availability. What staple food made available/ grown at Kamanga Community?
5. Number of health facilities and health services available. Probe: Hospital, health centers and dispensaries, traditional healers, traditional birth attendants. What types of health services are provided?
6. Number of schools and teachers (primary and secondary schools, training colleges)
7. Educational levels for the residents (No formal education, Primary school education, secondary education, college education other than university, university education – approx. in percentage, drop out (pregnancy, death, absentees, marriage), enrolled by girls and boys, completed basic education by girls and boys).
8. Number and types of drinking water sources (clean and safe water), and the walking distance from households to the water sources.
9. Availability and use of toilets- estimate in percentage number of households with toilets and types of toilets (e.g. pit latrines and modern toilets).
10. Top ten diseases in Kamanga Community.
11. Common causes of death at Kamanga Community.
12. Number of stakeholders working in Kamanga community. Who are they and what are they doing?

Time Frame

Dates	Main Activity	Sub- activities	Responsible
15th -19th December 2014	Survey conducted	15th Dec: Courtesy call to Sengerema District and Kamanga Village government office	All
		16th Dec: Conducting in-depth Interview	RA
		17th – 19th Dec: Conducting FGDs	RA
22nd -26th Dec 2014	Christmas Holidays		All
29 -31 Dec 2014	Information transcription		RA
5th – 9th Jan 2015	Translation from Swahili to English		RA
12th -16th Jan 2014	Data Analysis		RA/ Consultants
19th – 23rd Jan 2015	Report writing		RA/Consultants
26th – 30th Jan 2015	Report feedback validation	Draft 1 of report submitted. Follow-up community event held to validate information and add/edit details.	Consultants/ The Cedar Foundation/community members
Feb – May 2015	Report finalization	6th Feb 2015: Draft 2 of the report submitted incorporating feedback from the community event	Bugando
		20th Feb 2015: Feedback from The Cedar Foundation Foundation sent back to Bugando	The Cedar Foundation Foundation
		27th Mar 2015: Final report sent by Bugando incorporating feedback and comments from The Cedar Foundation Foundation.	Bugando
		29th April 2015: Final report approved and finalized by The Cedar Foundation Foundation.	The Cedar Foundation Foundation

Budget

Main Activity		Sub Activity	Budget item	Persons/ amount of items required	Days/ Frequency	Rate (Tshs)	Subtotal (Tshs)
Carry out situational analysis	I	Translation of study tools in house	Stationary	1	1	10000	10000
			Secretary	1	1	22500	22500
			Facilitator's perdiem	2	1	100000	200000
			Refreshment	3	1	15000	45000
			Tap records	2	1	200,000	400000
Total							677500
	ii	Orientation training of research teams and pretesting of study tools	Research Assistants' Perdiems	4	5	40,000	800000
			Facilitator's allowance	2	7	100,000	1400000
			Driver	1	5	22,500	22500
			Transport	6	2	5,000	60000
			Refreshments	7	3	15,000	315000
			Venue	1	3	200,000	600000
			Stationary	1	1	50,000	50000
			Fuel	50	1	2,500	125000
Total							3372500
	iii	Courtesy call to district and community meeting	Transport	12	1	10,000	120000
			Refreshments	15	1	15,000	225000
			Facilitators' perdiem	2	1	100,000	200000
			Driver's perdiem	1	1	35,000	35000
			Lunch Allowance	12	1	10,000	120000
			District staff	1	1	45,000	45000
			District driver	1	1	22,500	22500
			Fuel	50	2	2,500	250000

Total							1017500
	iv	Situational analysis	Research Assistants' Per diems	4	5	65,000	1300000
			Facilitators' perdiem	2	5	100,000	1000000
			Driver	1	5	35,000	175000
			Refreshments	50	1	15,000	750000
			Fuel	100	1	2,500	250000
			Stationary	1	1	50,000	50000
			Tape recorders	2	1	200,000	400000
Total							3925000
	v	Data analysis and reporting	Participants' Per diems	4	5	40,000	800000
			Facilitator's Allowance	2	7	100,000	1400000
			Driver	1	5	22,500	112500
			Transport	6	2	10,000	120000
			Refreshments	7	5	15,000	525000
			Venue	1	5	200,000	1000000
			Stationary	1	1	5,000	5000
			Fuel	50	1	2,500	125000
Total							4087500
	vi	Baseline data dissemination meeting with stakeholders including community leaders, district authorities and partners	Participants' lunch allowance	60	2	10,000	1200000
			Transport	12	1	10,000	120000
			Facilitator's Allowance	2	1	100,000	200000
			Driver	1	1	45,000	45000
			Refreshments	15	1	15,000	225000
			Venue	1	1	200,000	200000
			Stationary	1	1	50,000	50000
			Fuel	50	1	2,500	125000

			Driver from district	1	1	22,500	22500
			District Representative	1	1	45,000	45000
							2232500
		TOTAL					**15312500**
		CONTINGENCY					**1531250**
		GRAND TOTAL in Tsh					**16843750**