Agencia Regional para la Inmigración y Cooperación
Comunidad de Madrid

AMREF
Better Health for Africa

FINAL REPORT

Final Evaluation of the project: Prevention of water born diseases in Tegeruka Ward, Musoma rural district, Tanzania

ENG.FRANCIS M.A. MTITU

MEng Management, BsC Environmental Engineering Registered Professional Engineer (T). P. Eng Nº 3041

Conducted by:

Albino Kalolo , Francis Mtitu & Yeronimo Mlawa

For AMREF, Tanzania

CONTENTS

LIST OF ABREVIATIONS

AMREF	African Medical and Research Foundation
CHMT	Council health management team
CSOs	Community Service Organizations
CORPs	Community Owned Resource Persons
DWE	District Water Engineer
FGDs	Focus Group Discussions
TOTs	Trainers of trainers
WASH	Water, Sanitation and Hygiene
WDC	Ward Development committee

ACKNOWLEDGEMENT

This evaluation would not have been possible without the dedication and hard work of many individuals and partners. We would like to thank all the staff at AMREF Mwanza in particular Ms Edna Matasha, Lake Zone program Manager. She was extremely generous in supporting all logistical arrangements and providing us with support staff that made the task easier to execute. We extend our thanks to Mr. Medard Rwakatare for field level arrangements and coordination in Musoma his insights and assistance was invaluable. We would also like to thank Mr. Zumba from AMREF Mwanza for his safe and considerate driving during our field visits.

We also extend our sincere thanks to the project partners especially from Musoma district council, health facilities and village governments who were available for us despite their busy schedules. The open hospitality in detailing opinions of what this project was able to achieve with their involvement is highly appreciated.

We deeply appreciate the support that village chairpersons and all other local leaders provided to the evaluation teams during data collection at community level. They provided direction for the teams to conduct their activities successfully.

Finally we thank the sampled communities as a whole for their cooperation and provision of information individually and in focus group discussions that helped the assessment team get a better understanding of the changes made by the Tegeruka project in their areas.

Disclaimer

The views expressed in this report are those of independent consultants and do not necessarily reflect those of AMREF.

EXECUTIVE SUMMARY

In the context of a program funded by Madrid Regional Government, AMREF together with Musoma District council implemented a pilot project that integrated maternal, child health and WASH services . The Maternal, child health and WASH services project also known as TEGERUKA project was implemented in the Tegeruka ward and it started in March 2011 and was concluded in December 2012 .

In March 2013, an external end of the term evaluation consultancy mission was conducted on the implementation processes and preliminary impact of the project.The objective of this consultancy was to asses the impact of the project on maternal child health and WASH services and asses the potential of sustainability and scalability

The approach adapted in this evaluation consisted of data collection from both primary and secondary sources using quantitative and qualitative (mixed) methods.

The following are key findings of the project

The need of the project and awareness of the project was high. About 88% of the participants were aware of the project and explained that this project was highly needed by their community but it was found that only 30% knew the components of the project.

Access to maternal and child health services was high whereby about 85% of the participants had accesed care in the past three months before this evaluation.

Most participants (60%) rated the services at the dispensary to be satisfactory as result of the changes brought by the project. However, facility assessment revealed a suboptimal quality of care characterized by lack of essential drugs, inavailability of guidelines and protocols for patient management ,poor sterelisation of surgical instruments and poor management of waste

Male participation in the project area stood at 32% and was not related to knowledge about the project

Health system challenges (human resources crisis and frequent stock outs of drugs) and lack of water affected the quality of services provided at the dispensary

Rehabilitation of the infrastructures were successful but not in use during the time of evaluation, also some of the water structure (boreholes) failed to function soon after construction and some were abandoned by the users, which suggestion poor construction and sensitization respectively.

The community appreciated the successes of the program in terms of infrastructure development but consistently explained that they do not necessarily need new or good buildings, but they need quality services.

The project evaluated proved limited participation of the water department on supervising and certifying the works done by contractors, this can be explained by water borehole abandoned by the users and another borehole that stopped functioning soon after construction

Lessons from the project

Although, the project addressed some of the health system challenges, there is a need to broaden the scope and address issues related to human resource and availability of commodities in health facilities. Particularly, Future projects should also look at the supply chain challenges that causes frequent stock outs of essential drugs

Future projects of similar nature should be of at least 5 years in order that gains of the project are maximized and monitored over time.

Capacity building and awareness raising to communities on water policy is important,

Participation agreements and sustainability plans should be discussed before starting the project

CHAPTER ONE: INTRODUCTION

1.0 Background information

Tegeruka project in Musoma District started in March 2011 and phased out on 30th December 2012. The project is funded by Madrid Regional Government through AMREF in Spain. The project was implemented by AMREF in one ward of Musoma Rural District in collaboration with Musoma Rural District council. The theoretical framework used to formulate the project was the Health belief Model. The major project interventions were as follows:

1. Maternal Health: Renovation of Tegeruka Dispensary and construction of maternal ward that will help in increasing privacy during women delivery, provide Antenatal room for pregnancy monitoring, Prevention of mother to child transmission (PMCTC), Refrigerated room to store vaccines, waiting shed for pregnant women and their accompanying partners/couples and ultimately improve the quality of reproductive health services delivery

2. Water supply and sanitation: This include the following

- Construction of three productive boreholes with hand pump for the three villages of Maneke, Tengeruka and Kataryo

- Construction of one borehole with solar powered pump and storage tank at Tegeruka dispensary.

- Rehabilitation and protection of one traditional well in Mayani village.

- Construction of one latrine with four stances at Tegeruka dispensary to improve sanitation and hygienic condition of the dispensary

1.2 Project objectives

Since its inception the implementation process continued as it was planned and almost all activities have been completed. The district as well as other collaborators played their role in ensuring the project was implemented as planned. The overall objective of the project is to reduce the mortality rate of under five years old children in Mara Region through increased uptake of quality Reproductive Health Services and

accessible and adequate safe water supply under the influence of skilled health service providers, knowledgeable and sensitized communities and increased uptake of maternal and child care services.

Objectives

1. To decrease morbidity of under five years old children in the three villages of Tegeruka ward
2. Improve uptake and quality of RH and child care services at Tegeruka dispensary
3. Increase number of people (communities) accessing clean and safe water
4. Improve hygiene and sanitation practices of people in the 3 villages of Tegeruka ward

The project aimed at achieving the following outcomes;

- Improved childcare and hygiene habits in four villages
- Improved accessible quality of maternal and child health services
- Improved access to safe drinking water in four villages
- Increased evidenced experiences generated for future replication

1.3 Objectives of the final evaluation

The objective of the consultancy (final evaluation) is to conduct the final evaluation of the Tegeruka project in Musoma Rural district. The main objective of this study is to assess the impact of the project on maternal, child health and WASH services and assess the potential for sustainability and scalability. The following are specific objectives of this End-Term Evaluation for the Integrated Maternal Health and WASH Project:

- To assess the extent to which the project has attained its goal and objectives - focusing on early signs of its impact/outcome and sustainability of results
- To assess the Awareness, Knowledge, Attitude and Practice of community members towards preventing under 5 mortality
- To assess the integration of project activities into the existing structures and systems

- To identify opportunities/challenges on how the community and district authorities will sustain the best practices from the project once AMREF exits

1.4 Evaluation Methodology

1.4.1 Description of the project evaluation site

This evaluation was conducted in Musoma rural district. According to the 2012 population census a combined population of Musoma and Butiama is 420,088 (Butiama is a newly formed district after dividing the Musoma district,). Musoma District is one of the six districts of the Mara Region of Tanzania. It is bordered to the north by the Tarime and Musoma Urban Districts, to the east by the Serengeti District, to the south by the Bunda District and to the west by Lake Victoria.

The final evaluation survey covered Tegeruka ward and its three villages of Kataryo, Maneke and Tegeruka. Table 1 below describes the district health indicators relevant for this report .

Table 1: District key indicators relevant to this evaluation

S/N	Indicator	Proportion/ rate
1	Total population	446, 516**
2	Total fertility rate	3.5%
3	Population growth	2.5%
4	Birth rate	7.4
5	Antenatal new attendance rate	100%
6	Family planning new acceptance rate	21%
7	HIV prevalence among pregnant women	3%
8	Maternal mortality rate	40/100,000
9	Proportion of patients diagnosed with cancers*	3%

*All types of cancers; No separate data of cervical or breast cancer** District health report 2012

1.4.2 Target Population

This evaluation had two study units: the supply side actors (health workers, district officials, community resource personnel such as CORPS and health facility committee members) who served as key informants and women in the community who are either clients or potential clients of maternal and child health services who participated both in a questionnaire based survey and in the focus group discussions. The respondents were found in health facilities, offices or in the households.

1.4.3 Evaluation design

This evaluation was a descriptive cross-sectional survey that employed mixed methods design in order to bring together the strengths of both qualitative and quantitative research methods in understanding the changes brought by the project.

1.4.4 Inclusion Criteria

The following were eligible to participate in the study:

- The supply side actors (health workers, district officials, community resource personnel available at the time of the evaluation;
- Women aged between 18-49 years of age

1.4.5 Exclusion Criteria

The exclusion criteria were for those who did not consent to participate in the evaluation and those who were sick were excluded from participating in the evaluation.

1.4.6 Sample Size Determination

We used a random sampling procedure to get 63 women to participate in the household survey from all three villages. This sample was considered sufficient to conduct bivariate analysis to obtain the preliminary impact of this pilot study. However, purposive sampling was used to recruit participants for key informant interviews (KIs) and focus group discussions (FGDs). We conducted 10 KIIs and 6 FGDs

1.5 Data Collection Techniques and tools

Data for evaluation was collected using multiple methods and tools ranging from questionnaires, focus group discussions, key informant interviews, health facility questionnaires, CHMT meetings and review of various project documents as well as the Musoma district council reports. Quantitative data were collected through a questionnaire and checklists, while qualitative data were collected using semi structured instruments aimed at understanding the qualitative aspect of project effects.

1.5.1 Data Collection

Data was collected over a period of 2 weeks. All the data collection tools were pre-tested to ensure their validity and reliability. Moreover, assistant evaluators had already received a two days training before actual data collection in the field. The evaluation team conducted key informant interviews with the supply side actors in their offices or comfortable places thus ensuring comfort ability and confidentiality. Also, Focus Group discussions with clients were held according to gender and age bracket. Household surveys were also conducted. The evaluation team then identified and categorized the emerging themes. Project records, health service statistics as well as progress reports were also reviewed for key variables of interest.

1.5.2 Data Management

When the filled tools arrived at the data management centre; they were cross-checked for consistency and validity. For example all questionnaires had the name of the village or health facility and code of the interviewer. The tools were checked to see if they were fully filled. Where the information was incomplete it was noted and reasons for incompleteness established. This editing process was followed by coding of all the questions on the tools. Established coding formats were applied for ease of comparison. Coding was followed by the data entry process. All data quantitative data was entered in excel sheet and transported to STATA and was cleaned before actual analysis. Frequency distributions of all variables were generated. All the raw data forms were put in coded box files and securely kept to avoid losing them during the course of the study.

1.5.3 Quantitative Data Analysis

Data analysis was carried out using the Statistical Package for STATA Version 12. Outcomes were expressed as proportions and percentages. Simple proportions were generated as appropriate to describe the data. Data was then summarized in tables, graphs, and pie charts.

1.5.4 Qualitative Data Analysis

The evaluation team cross-checked all data received for completeness, validity, precision and accuracy. Content analysis was used to analyze the qualitative data on the basis of emerging themes and sub-themes in line with the evaluation objectives. Participants' responses were coded and typed in Microsoft Word 2007, and later proof-read. The data was then transferred to Nvivo Statistical package to aid analysis. The qualitative data was analyzed by formulating tentative themes and sub-themes, which were continuously analyzed before, during and after data collection. Descriptive summaries and quotes were used. Trend analyses of the key informant interviews and Focus group discussions were useful for identifying the major issues for each of the study themes and sub-themes. This also facilitated comparisons and contrasts of participants' views within and among the different sites.

1.6 Limitations of this evaluation

Some of the records reviewed had incomplete and/ or missing data. In addition, a number of respondents who were interviewed did not answer some questions- leading to non-responses. Moreover, the cross-section nature of the evaluation and a small sample size, limits to provide causal relations of the impact of the project in the target population.

1.7 Ethical Considerations

Approval was obtained from the District authority to proceed with data collection in the community. Before data collection began, due care was taken to ensure that informed consent was obtained from all respondents. The informed consent included explanations about the purpose and objectives of the evaluation, the benefits and risks that could accrue from the evaluation; the rights of the respondents, and reassurance

on confidentiality. An opportunity was availed to each respondent to ask questions and / or seek further clarification.

Respondents were free to refuse to participate in the study without any consequences. This evaluation had no explicit risks to the respondents, but its findings could inform processes for improving the provision of maternal and child health services in resource-limited settings. Those who were sick were excluded. Confidentiality and integrity of all respondents was observed throughout the course of the study. Key informants were not directly linked to the comments made during the study so as to give them freedom to express their views frankly and freely. They were interviewed in their offices or a comfortable place to ensure privacy and confidentiality

CHAPTER TWO: EVALUATION RESULTS

2.1 Background descriptive

The results were obtained through community based survey, facility based observation checklist, field observation of infrastructure equipments and qualitative information obtained through focus ground discussion and key informants. In total, 53 women aged between 18 and 49 years participated in the survey. The mean age was 31 years (SD=8.2990) and the median age was 30 years. Most of the participants (80%) had primary school education. Respondents with under –five years children were (35) 66%. Moreover, about 83% of the participants have been living in the project area since the project was launched (table 2).

Table 2: Demographic characteristics of the study population

	mean	Standard deviation (SD)
Age (years)	31	8.29
	Frequency	Percentage (%)
Length of stay		
Less than two years	9	17
More than two years	44	83
education		
None	8	15
Primary	42	80
Secondary and above	3	5
Presence of U5 children		
No under five children	18	34
Have under five child(ren)	35	66

marital status		
single	5	10
married	41	77
cohabiting	7	13

2.2 Access to maternal and child health services

Access to maternal and child health services were evaluated by looking the aspects of awareness of the project services, male involvement, and acceptability and satisfaction of services, availability of services and commodities. It was found that 85% of respondents had accessed health services three months before the evaluation. They either received care for themselves (38%) or care for their under five children (62%) (Table 3).Among those who attended maternal care, reported to have received the following services ; antenatal care (15%), both antenatal care and delivery services (33%) while 62% had received both antenatal care, delivery and postnatal care at Tegeruka dispensary. Among those who attended child care, they reported to have received immunization and wellness childcare (79%) and treatment of common illnesses such as malaria and diarrhea (21%).

Table 3. Frequency distribution of respondents by access to services

Accessed health care services	**Frequency**	**Percentage (%)**
Yes	45	85
No	8	15
Received U5 services		
Yes	34	62
No	19	38
Received maternal health services		

Yes	20	38
No	33	62

2.3 Awareness of the project and utilization of under-five services

It was found that 88% of the respondents were aware of the project. However, when asked to explain the components of the projects (knowledge), only 30% of the respondents could mention all components. However, most of them were well aware of the renovation of the Tegeruka health facility and construction of water wells. Women who had children were more aware (75%) compared to their counterparts. Those who had accessed U5 care services before this evaluation, were more aware (68%) than those who did not (32%), but the difference was not statistically significant (table 3)

Table 3: Distribution of participants by awareness of the project and utilization of under-five services

	Awareness of the project		
Utilization of under five services	Yes	No	Total
Yes	32	2	34
No	15	4	19
Total	47	8	53

t=-1.0064, df (51), p=0.15

Acceptability and awareness of a project among beneficiaries is among the important factor for utilization of its services. During focused group discussions, participants were asked about their awareness to the project implemented by AMREF in collaboration with the Musoma Distract council in Tegeruka ward. The project seemed to be well known to beneficiaries and other stakeholders in the ward. However, knowledge of project components was low. They described the project in terms of improving Maternal and child health services, water and sanitation services.

They described the project by linking it well to the challenges they were facing before the project such as lack of clean water, small dispensary with limited space for maternal health services especially for deliveries, lack of health workers, few delivery beds, and frequent out stocks of essential drugs. One participant reported;

''Tegeruka project aimed at offering us with better health services which are highly needed by our community because we had a very bad previous experience when it comes to these services. For example, there were no delivery beds, children were being given poor quality services and every time you go, they tell you that there are no medicine (FGD Female participant,Tegeruka village, 2013)

However, there were many participants who were not aware about the project (refer to quantitative findings) but they witnessed that there were changes at the dispensary including the renovation/expansion of the dispensary, toilets and water supply but they did not know that this project was jointly implemented by AMREF and the district council. A participant stated;

''I don't know about the Tegeruka project but I saw the hospital being renovated including toilets and water tank'' (FGD female participant, Tegeruka village 2013)

Some participants acknowledged the importance of this project to the community. They acknowledged the renovation of the clinic, building the water tank and renovation of the toilets. Moreover they appreciated the drilling of the wells given the poor supply of clean ward at Tegeruka ward. One participant narrated;

The project was important because health services were poor here, for example, we had only one nurse so we had to stay until in the evening waiting for the services, now at least with the expansion of the dispensary we expect to have a doctor and more nurses because the space is enough''(FGD female participant, 2013). Another participant added;

''The project was really needed here because even the water to use at the dispensary, we were told to go fetch somewhere else before we are served especially when we are expecting to deliver at the clinic'' (FGD female participant, Tegeruka village, 2013). Yet another participant reported;

''Even the toilets had no water, that made it difficult to use the toilets (FGD female participant, 2013).

While the renovated buildings are not yet being utilized because they have not been handed to the district, the community had very positive expectations that the quality of services will improve. However, some were pessimistic and explained that buildings are not that important if the services continues to be like the way they are now, and suggested that more effort should go to improving the quality of services even if the building are just of normal acceptable standards.

In fact what we need is quality services, renovations or building new buildings do not make much sense to us if the services continue to be they way they were (are) (FGD female participant, Tegeruka village, 2013)

2.4 Male participation in Maternal and child health

Male participation in maternal and child health was 32% .It was found that about 40% of those who were escorted by their partners to access maternal and child health services had knowledge of the project. The difference however was not statistically significant.

Table 4: Distribution of Male participation and knowledge of the project

	Knowledge of the project		
Male participation	Yes	No	Total
Yes	11	7	18
No	16	19	35
Total	27	25	53

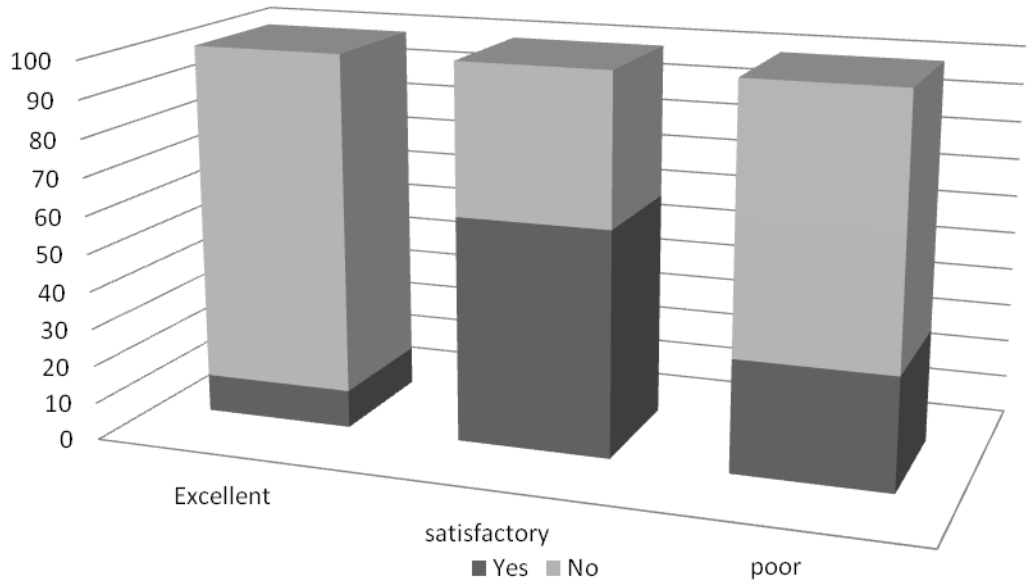
t=-1.2814, df (51), p=0.103

2.5 Satisfaction with health services at the dispensary

Most of the respondents rated the Maternal and child health services provided at Tegeruka dispensary as satisfactory (60%), while only 10% and 30% rated the services as excellent and poor respectively. The reason given was the absence of

qualified and adequate health workers as well as poor availability of medicines and related supplies (fig1)

Fig.1: participants assesment of the quality of maternal and child health services at Tegeruka dispensary



`2.6 Availability of treatment guidelines, commodities and equipments for maternal and child health services

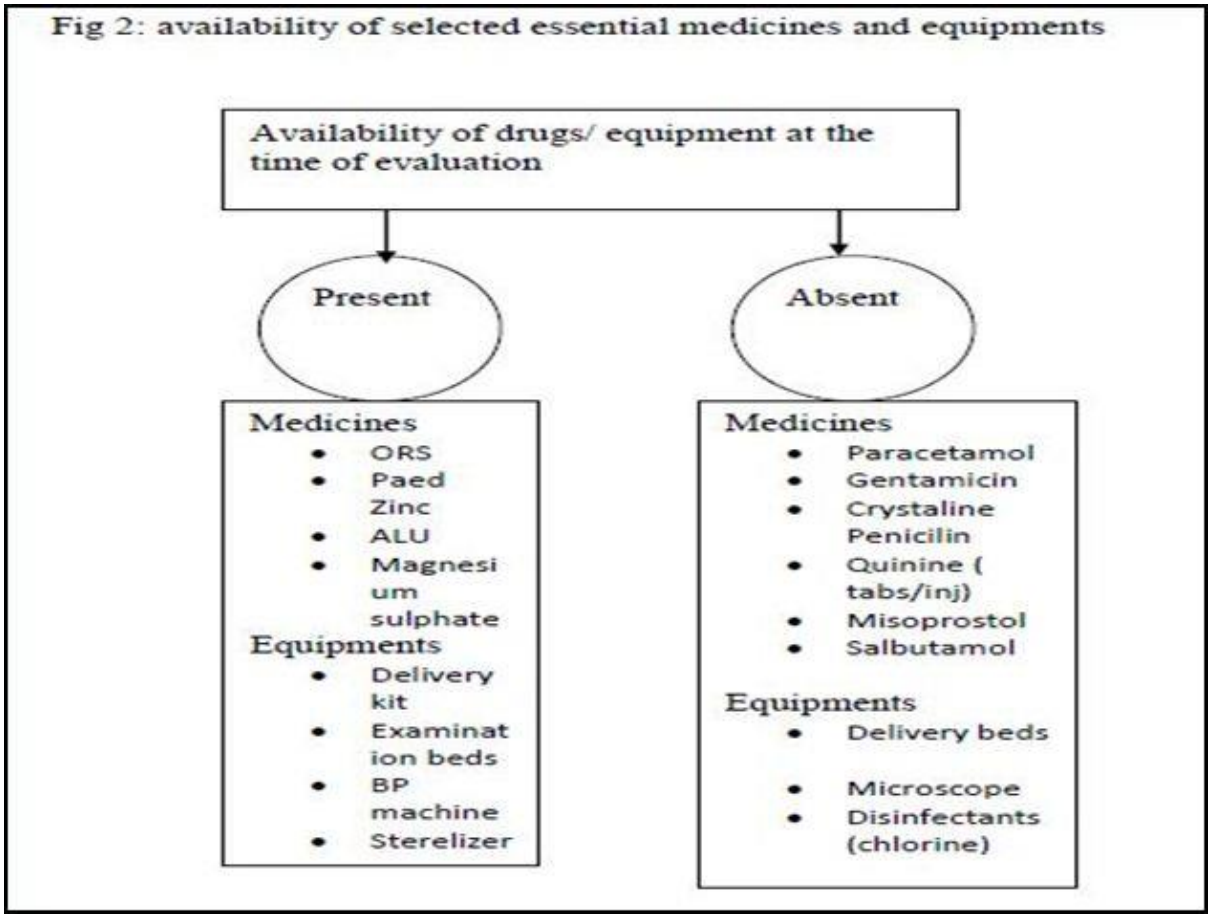
Provision of quality health services requires apart from qualified human resources and good governance, availability of essential commodities such as essential drugs and diagnostics. Moreover, the use of recommended treatment guidelines and protocols is considered vital in reducing morbidities and mortalities when well designed and implemented. We assessed the situation of the Tegeruka dispensary in terms of availability and use of various guidelines and protocols as well as availability of drugs.

The health facility in charge ranked the problems faced by the dispensary according to severity as inadequate health workers and lack of motivation among health workers (the available are over burdened with heavy workload).

The second challenge was frequent stock outs of essential medicines and equipments. At the time of the evaluation, we found that most equipments and drugs were out of

stock

(Fig.2)



Source: authors of this report

Even when some of the drugs were available, but they had been out of stock in the recent past.

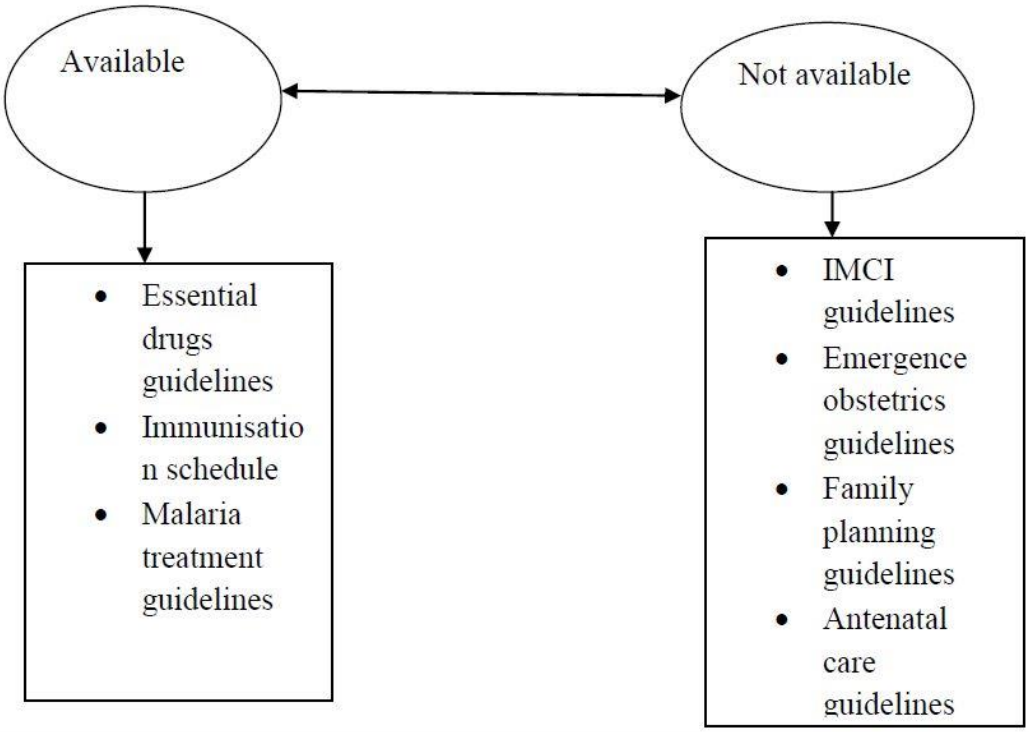
2.7 Availability of water at the dispensary

Although there has been renovations by AMREF, but water is still not available at the dispensary. This jeopardizes aseptic conditions that are supposed to be present when offering health services.

We further assessed the presence of essential maternal and child health guidelines and protocols as recommended by the ministry of health [URT, 2007] by asking whether they are available and whether they are used in daily practice. We found that important guidelines were missing (figure 3 below) and those available were not utilized frequently. These findings were presented in the CHMT meeting for more clarification and it was found that there are other challenges that are within their

immediate reach such as that of guidelines and treatment protocols, but other factors will be collaboratively addressed by various actors in provision of health services in the district.

Fig 3: Availability of important guidelines



Source: Authors of this report

2.8 Access to improved water supply and sanitation

The project planned to support the improvement of water supply through the drilling and construction of boreholes and shallow wells. Three boreholes were planned for Maneke, Tengeruka and Kataryo village. In additional one boreholes installed with solar powered pump was planned for Mayani village.

At the end of the project, the evaluation team found the following achievement for each village:

Mayani Village: In this village one borehole was drilled under the support of the project, the borehole is installed with hand pump; the type of the pump installed is within village level operation and maintenance. The borehole is expected to serve 500 households around Mayani Village, however during the field visit we found the

boreholes abandoned and not utilized by the intended beneficiaries. Our interview with the member of water committee concluded that people are not using the service due to user's fee set by the water management committee. The users (apart of trainings and awareness provided by the project) are expecting free water which is contrary to the National water policy [NAWAPO, 2002)] which requires users to pay for the service they receive. This mind set of expecting the government and NGOs to provide free water is widespread in Tanzania, and can partly be explained by its history of socialist government when the state assumed responsibility for the provision of all basic services including water. However, since the mid 1990's the government, in line with World Bank and IMF direction, has undertaken a series of reforms including the privatization of public utilities. The water sector has been heavily affected by this state retrenchment, as the government role changes from the service provider to the service regulator, handing the operation and management of water systems to communities as per the National Water Policy. Our interview with community members confirmed that expectation of free water from project supported by the Government and NGOs and hence calling for more awareness rising on the policy directives by project implementers before embarking on construction of water facilities.

In this village, the project also supported the rehabilitation of water spring; the rehabilitation included the construction of water storage tank of the 5000 liters capacity.

The two water infrastructures are functioning but it needs more sensitization to the community from the district water department on user's contribution.

Borehole with hand pump at Mayani Village - No one uses it...!

Sanitation and Hygiene interventions were also conducted in this village, The project supported trainings related to sanitation and hygiene, ten (10) Community Owned Resource person (CORPs) were trained by the project, The CORPs are supported by one Trainer of Trainers (TOT) who provides technical support and supervisory role to the CORPs. After this training the CORPs conducted awareness meeting in the villages for people to have better latrines that meet health standards. According to the monitoring report provided by the CORPs to the evaluation team, during the end of the project only 30% of the households in the village were having latrines that meet the health standards. The remaining 70% were having some form of latrines that are not considered be not meeting the health standard as defined by JMP. It should be noted here that the CORPs were very instrumental toward the increase of number of households that have latrines; the challenge here is the quality of latrine constructed by the households. This might be due to lack of guidance from the district health management team (specifically the district health officer) that has a primary responsibility of providing recommended type of latrines according to the settings and conducting periodic inspections and supervision on the number and quality of latrines per household or in institutions in the district.

Kataryo village: The project supported the drilling of 3 boreholes; the boreholes are installed with hand pumps which are within the village level operation and maintenance. The supported infrastructures are managed by the strong water user committee that its formation was supported by the project. The committee has 50% male and 50% female representation and it is expected that in future the women composition will be more due to their stronger interest in water matters witnessed by our team during field visit. The project had also supported the rehabilitation of one shallow well that has reduced the water supply problem at the school, teacher's residential area and the surrounding community. However, during the evaluation, the shallow well was not working because the handle for fetching the water (connected with rope and bucket) was broken and no one took an initiative to repair it.

Apart of those achievement on water supply, still two sub village (Mlimani and Nyasahenge) are facing an acute water supply, they are currently working a long distance to collect water from the three boreholes, This call for AMREF and District to work together to address the problem, the level of involvement and participation of the community in this villages suggests that any investment of water supply in this village will get and good participation and contribution from the community.

Shallow well rehabilitation at Kataryo primary school - not functioning

On sanitation and Hygiene, The CORPs have also done a good work of sensitizing the community to upgrade their latrines, however, at the end of the project 25% out of the 987 household didn't have latrine, which suggests that 25% of the population is practicing open defecation, a risk behavior that can lead to eruption of water and sanitation related diseases like cholera.

School Sanitation and Hygiene Education (SSHE)

Project has supported the construction of two latrines blocks at Kataryo village; the construction has adopted the recently approved national guidelines for school water, sanitation, and Hygiene provided by the ministry of education and vocational training. The latrine design provides easy access to children with disability where one room provided with supporting hand rail and also for girls' toilet, changing room was provided to support girls during menstrual period. School children at Kataryo Primary school are accessing hand washing and improved sanitation facilities at school, this is expected to reduce the absentees of the children especially young girls in future.

During the field visit, the evaluation witness two latrines blocks (one for boys and another for girls), the blocks were constructed to high engineering standards and well finished. The latrine block for boys have a urinal well constructed to meet the needs of young boys, it is also connected with a water supply from the rainwater system, there is privacy wall, a special cubicle with hand rail for boys with physical disability and other three cubicles for other boys who do not have any physical disability. The girls latrine block has also privacy wall, special cubicles for girls with physical disability, change room for young girls during menstrual period, and other three cubicles for girls who do not have physical disability, this block is also served with water supply system that is connected from the rainwater harvesting system.

Our interview with the community members, school management committee and school teachers proved to us the community participation in this project was high, community members were involved in providing labour and local available materials for the construction of the latrines for their children.

	
Newly constructed latrines blocks -Katayo P/ school	**Old latrines block -Katayo P/ school**

Tegeruka Village: The project supported the drilling of one borehole in 2011,the supported borehole stopped functioning just a month after installation and no steps has been taken by AMREF to call the contractor to rectify the fault. Water Management committee was formed and trained by AMREF; the committee is enthusiastic to start practicing their role if the boreholes fault is rectified by the contractor. As a result of non- functioning of the borehole, the community members are no longer willing to contribute for the water service that they do not get. The committee is formed with a 50% 50% men and women representation respectively.

10 CORPs have been trained in this village and they are actively collecting information related to improved sanitation and hygiene in village. They use the forms that were developed by AMREF. During the end of the project many information were collected by the CORPs but they were not sure to where should they submit the information as AMREF was phasing out the project, there is a need for a proper hand over of the project so that the CORPs and other committees formed by the project starts to work district council structures like department of health water and other departments.

Rehabilitation and expansion of Tegeruka Maternity Ward

The project supported the construction of the maternity ward at Tegeruka dispensary. The evaluation team witnessed a very well constructed maternity ward with the following facilities:

One maternity ward that is able to accommodate 4 beds, the room is connected with the solar lighting system. Nurse's room connected with solar lighting system .Two delivery rooms (with a latrine and store); the rooms are connected with solar lighting system, 2 rooms for HIV/AIDS canceling, PMTC, Consultation and examination Laboratory

The building is well constructed to the opinion of the evaluation team, there is minor technical issues found during the evaluation like materials used for doors and proper fixing of switches. The evaluation team was informed that the same shortfall were raised before by the District team, the evaluation team witnessed the contractor rectifying it during the evaluation period.

The project has also supported the construction of outside latrines of the OPD, two drop hole for men were constructed and another 2 drop hole for women were constructed. These four drop halls are enough for the ODP but they miss the hand washing facilities although a 2000 liters tank is installed by the project, the evaluation team wonder how the water from the tank will be used without the hand washing facilities.

Water supply is available in the within the ward compound, during the evaluation, the team witnessed the contractor finalizing the in-side connections; The project has supported the rehabilitation of a big storage tank (46,000 liters) which will harvest water from the roof top of the building. The evaluation team opinion is that the construction works at the Tegeruka Dispensary is of good standards and will meet the intended use.

	
A Signboard to the rehabilitated maternity ward (with gender consideration, father, mother and child)	Rehabilitated maternity ward

2.9 Awareness, Knowledge, Attitude And Practice Of Community Members Towards Preventing Under 5 Mortality

Improved knowledge, attitude and practices on prevention of maternal and children under five health problems is prerequisite for creation of demand to utilize the available services that promotes health and alleviates morbidities and mortalities. Participants in the focus group discussions were asked about their knowledge, attitudes and current practices with regard to prevention of maternal and under five years children diseases and associated mortalities.

Participants reported a number of ways they use to prevent maternal and child deaths in their community. They mentioned about use of insecticide treated mosquito nets (ITN), proper covering of infants to avoid colds and pneumonia, abiding to immunization schedule and hygienic preparation of food. But they also mentioned about how to manage fever at household level before seeking health care by use of panadol or sponging with cold water. One participant reported;

''We believe that vaccinating our children is very important for it protects against diseases such as measles, polio, and other diseases'' (FGD Male participant, 2013).Another participant added;

''Use of bed nets, is another practice that we have been told that it helps to prevent malaria especially among children under five years of age. This has not been a serious problem in our place, but the mosquito nets we were provided are of poor quality, and we have no money to buy the new ones .that is the challenge we are facing'' (FGD female participant, 2013).

Yet another participant added;

''Diarrhea, has been a problem in this place because most people do not observe cleanliness, and the problem of scarcity of water, makes this a serious problem especially during dry seasons. Thanks to AMREF for the wells they have renovated for us, we hope it will solve some problems related to diarrhea and other abdominal diseases'' (FGD male participant, 2013).

In discussing with men and women at Tegeruka ward, it was clear that they are aware of some prevention strategies to prevent maternal deaths. Among the responses included, to attend the clinic during pregnancy, delivering at the clinic and eating a balanced diet. However, participants had the following observations with regard to delivering at the Health Centre as one of them explained

''Some women deliver at the dispensary, but others prefer to go to the traditional birth attendants because of the care we receive. For example, when I delivered my first child, I went to the hospital and I was attended well by the nurse, immediately after arriving at the dispensary, just at the door I felt like pushing, and suddenly I delivered at the entrance, the nurse helped me and I was allowed to go home on the same day. However, after a week, my child developed some pussy in the umbilicus, and I was referred to regional hospital. But my friend here, delivered at the traditional birth attendant, this is because her parents didn't trust the services at the hospital, although she attended all antenatal visits and she now send the twins for vaccination. I believe that delivering at the health facility has several advantages, but sometimes health workers are not friendly to make us go there'' (FGD female participant, 2013). Another participant added;

''People decide to deliver at home because of few health workers in our dispensary, the dispensary is sometimes closed when they go for their salaries in town, and this is a serious problem here''(FGD male participant, 2013). Yet another participant stated;

''There is corruption, especially when you take your child for vaccination and other services that are supposed to be provided free of charge and distance to the health facility and associated cost for those who stay far away''(FGD female participant, 2013).

In order to know how the beneficiaries experienced about the project, participants were interviewed to assess the current successes they see about the project and compare with the past practices and traditional norms. With regard to the effectiveness of Tegeruka project to reduce maternal and child deaths, participants reported the following. This project included renovations to make buildings look nice, the wells to function as well as the pit latrine, but also the project trained CORPS and TOTs for water and sanitation. However, they observed that the new building hasn't started operating and COPRS and TOTs don't have tools to operate the wells. Moreover, participants saw a trend of change comparing with past practices by acknowledging that these structures are in place though not fully operating. They reported that they used to go to traditional healers for their illness and delivering at home with help from traditional attendants but now they have more trust as the services might be more appealing in the near future due to these changes. One participant reported;

''We used to deliver at home with assistance from traditional birth attendants but now days they refer us to the clinic with an excuse that they don't have facilities'' (FGD female participant, 2013). Another participant added;

''Yes the buildings are good but what we need is not the buildings but the services'' (FGD female participant, 2013).

While male involvement is among the barrier for utilization of maternal and child health services, men play an important role to facilitate for the same if they have positive attitude about it. Participants were asked to describe what they see in terms of male involved in their ward. However, they reported it to be still a challenge. They

reported that, while very few know the importance of family planning, PMTCT and attending the clinic together, the majority resist. A participant stated;

''Here most men are not aware of its importance, most see going to the clinic as a women role'' (FGD female participant, 2013).

Finally, participants made the following recommendation for future improvement.

Availability of water at the clinic should be improved, they suggested deep wells

Health providers should be made available all the time

Beds are still very few for admitting patients, they requested for more.

INTEGRATION OF PROJECT ACTIVITIES INTO THE EXISTING STRUCTURES AND SYSTEMS

Opinion from the Council Health Management Team (CHMT) members

Awareness about the project

Awareness of the project was high enough among the Council Health Management Team (CHMT) members. Participants were very aware about the project and the donors because it was collaboration between AMREF and Musoma District Council. They went to the level of mentioning the entire three components as stated below by one of the participant;

'' We are aware about Tegeruka project very much, the project had two components namely water and sanitation, rehabilitation of the dispensary including the solar and water tank at the dispensary'' (FGD male participant,Tegeruka village, 2013).

Successes of the project

As stated above, sustainability and advocacy for the project depend much when the CHMT learn from the successes for policy advocacy and integration in on-going programs. In discussing with them, successes of the project were recognized in terms of infrastructures including renovations of the dispensary, building the water tank at the health centre, solar and drilling of wells around the community. However they recommended that it is too early to ask for bigger impact because it takes time. One participant reported;

''It is too early to ask about the impact, we recognise success in terms of infrastructures, now we expect that, with what have been done, even dealing with non-communicable diseases will be easier in future''. (FGD male participant, Tegeruka village, 2013)

Areas for improvement in future

Transparency; based on results from the community, participants were asked about transparency of the project and other improvement. Most participants agreed that transparency have changed along the way due to the fact that this is not their first collaboration with AMREF. One participant narrated during the discussion.

Transparency has incredibly improved. They were paying directly to the clients but now the head of department at the District Council is responsible for certificate of payment. That is why even now the project hasn't been handed over because the head of the department recommended for some areas to be finished well before payment (FGD male participant, 2013)

Sustainability and Integration for uptake in the Council plans

The CHMT members acknowledged their responsibility to sustain the Tegeruka project. They reported that projects come and go so as the government, they are responsible to sustain. With regard to Tegeruka, CHMT members reported availability of trained Government and Community members, presence of the specific departments with responsibility of sustainability plan and maintenance of the infrastructures which have been built r.

However, they had the following recommendation;

- Period of project implementation should be increased at least for five years
- Exit plans should be discussed with AMREF before handling over
- Donors should also assist to retain health providers in the rural areas.

One of the participants commended;

''Let me start, it is like that, even today the meeting here is to discuss report for each department. So we discuss what has been has been done in each health centre.

According to the reports of last year, we are doing well in terms of delivery at health recently to a level of 57% and this year we expect to push up to 60% '' (FGD male participant, 2013)

Other recommendation included;

- The delivery room to be finished with tiles instead of cement
- Water supply to be connected directly to motor that clients going to fetch at the tape.

Stakeholder's opinions on sustainability of the project

The ward development committee (WDC) is a ward administrative structure responsible for ensuring that ward plans and policies are in line with the community needs and priorities and are implemented accordingly. Engaging them during project development, implementation and evaluation is vital. Discussing with WDC aimed to gather evaluative information in terms of awareness about the project implemented by AMREF in collaboration with the District Council Success they see to date, sustainability and areas for improvement in future.

Awareness about the project

Results from the participants were encouraging. Participants were very aware about the project and the donors. This was possible because they were involved at the beginning to the end. One participant reported;

''We know the project because it was introduced to us and we know some of the workers from AMREF who have been with us for sometimes in this village. Moreover we know the donor, the Madrid Regional Government'' (FGD male participant, Tegeruka village, 2013)

Successes of the project

As stated above, sustainability and advocacy for the project depend much when the WDC could learn from the success for policy advocacy and integration in on-going programs. In discussing with the WDC members, successes of the project were recognized in terms of expanding the dispensary to the level of being a health centre, building the water tank at the health centre, drilling of wells, and construction of pit

latrines at Katarayo secondary School. Moreover, they recognised training of the TOTs and CORPs for water and sanitation within the ward as success. One participant stated;

''About the dispensary building, everybody is satisfied, but up to now, the building is yet to be handed to us'' (FGD female participant, Tegeruka village, 2013)

Another participant added,

''AMREF supported us so well to improve sanitation in schools and at the dispensary. This has no doubt at all'' (FGD male participant, Maneke village, 2013)

Areas for improvement in future

Challenges are opportunities to learn and recommend for improvement in future. The WDC members were asked to assess what could be recommended for improvement in future. Areas for improvement suggested by almost all members were being not aware of the budget, not being involved in the procurement process and handling over and lack of tools among trained personnel for water and sanitation. One participant reported

'' I think it is important discussing areas for improvement. Up to date we are not aware of the cost of the project and so I can say transparency was minimal'' (FGD male participant, Tegeruka village, 2013)

Another participant added;

''There has also been some discrepancies on paying people when they are called for sensitisation meetings/ seminars. Also, the tendering process did not involve us, and up to now we hear that AMREF hasn't paid the final amount to the constructor they hired'' (FGD male participant, Tegeruka village, 2013)

Yet another participant added;

''For water and sanitation the trained personnel lack tools, this is why some wells are not working'' (FGD male participant, tegeruka village, 2013)

Sustainability

The WDC members acknowledged their responsibility to sustain and advocate for prevention of maternal deaths and deaths of children under five especially citing the importance of water and sanitation, delivering at the clinic for pregnant mothers, engaging the water committee members to mobilize community member to share the cost and increasing the number of health providers. One participant reported;

''In order, to sustain what has been done by AMREF, we will work towards collaborating with AMREF and advocating to other stakeholders to address problems that are not solved up to date'' (FGD male participant,Tegeruka 2013). Another participant added;

''In my ward, the water committee can work with community members for them to share cost'' (FGD male participant, Maneke village, 2013).

CHAPTER THREE: DISCUSSION

3.1 Background

We used mixed methods to evaluate this project that had multiple outputs. We found that there exist some barriers to accessing maternal and child health care services as well as water and sanitation services. These barriers are of two categories pertaining to health system factors and non-health system factors as documented by previous studies elsewhere (Thadeus & Maine, 1994, Mpembeni et al, 2007). Both health system and non-health system factors were assessed in this evaluation to determining the extend the Project contributed to improve access to maternal and child health services as detailed in subsequent sections.

3.2 Awareness of the project and Access to maternal and child health services

In this cross sectional evaluation study of women of child bearing age , who had a mean age of 30 years with majority (80%) having primary education and 66% having children under-five years, we found that utilization of maternal and child health services to be associated with awareness about the project. Moreover, awareness was higher among those with under-five children than their counterparts. This finding might explain the fact that women with under-five children have higher demand of health services and will be keen to follow up any developments in the community that is geared to increase access to this service. Moreover, this finding might explain the approach used by the project to reach this group by using multiple approaches ranging from providing information at the health facility to the community level.

Furthermore, the fact that others members of the community were not aware of project, points to need to widening community engagement during planning, launching and implementation of the project. The concept of community participation as explained by Amstein's ladder of participation (Keith Tones and Sylvia Tilford ,2005), explains the degree the community can participate in community based projects that affect their lives. Maximum community participation is at the top of the ladder whereby the community has genuine control, while at the bottom of the ladder there is zero participation, which indicates complete manipulation by the top-downer

project implementing organ. This group can still benefit by deliberate efforts of AMREF and its implementing partners to involve fully the community during official launching of the new building at the handing over ceremony

Most of the respondents rated the services provided at Tegeruka dispensary as satisfactory (60%), while only 10% and 30% rated the services as excellent and poor respectively. While the majority of the respondents rated the Tegeruka dispensary services being satisfactory, there is a need to improve the critical areas which were rated unsatisfactory like inadequate health workers and medicines because they are key factors for sustained utilization of MCH services. This might help to maximize both utilization of maternal and child health services and particularly attracts women to deliver in this health facility. The findings by Mpembeni et al (2007) , that women might fully attend antenatal care and prefer to go to deliver to the traditional birth attendant points to the need of addressing the aforementioned issues .

Provision of quality health services requires apart from qualified human resources and good governance, availability of essential commodities such as essential drugs and diagnostics. Moreover, the use of recommended treatment guidelines and protocols is considered vital in reducing morbidities and mortalities when well designed and implemented. In this evaluation we found that there was frequent stock outs of essential drugs and equipments a finding that might contribute to denying the community from quality health care. Kruk et al (2007) in when accessing women's preferences for place of delivery in rural Tanzania, they found that a respectful provider attitude and availability of drugs and medical equipment were very important attributes.

Among the Tegeruka dispensary problems that were ranked high by the health facility in charge, were human resource for health crisis (inadequate health workers and lack of motivation among health workers in that the available are overburdened with heavy workload) and frequent out of stock of essential medicines. Although this finding is not new, but it still highlight the need of incorporating system strengthening components in projects that aim at improving maternal and child health service. This calls for future project to invest creating motivations for health workers to work in rural areas like Tegeruka ward as recommended by previous studies (kruk et al, 2012)

Furthermore, despite the efforts by AMREF and its partners to address the issue of male involvement in sexual and reproductive health services, we found that male participation is still a challenge. As it is with no doubt that men play a critical role in influencing their partners to make decisions related to accessing health care use of services, more innovative initiatives to address this challenge is needed (Thadeus & Maine, 1994)

3.3 Access to water and sanitation services

Our interview with the member of water committee concluded that people are not using the service due to user's fee set by the water management committee This could not be just the amount of the fee but could also be due to the tendency of community members to be supplied water for free so cost sharing is a new phenomenon to them. The users (apart of trainings and awareness provided by the project) are expecting free water which is contrary to the National water policy (URT, 2002) which requires users to pay for the service they receive. This mind set of expecting the government and NGOs to provide free water is widespread in Tanzania, and can partly be explained by its history of socialist government when the state assumed responsibility for the provision of all basic services including water. However, since the mid 1990's the government, in line with World Bank and IMF direction, has undertaken a series of reforms including the privatization of public utilities. The water sector has been heavily affected by this state retrenchment, as the government role changes from the service provider to the service regulator, handing the operation and management of water systems to communities as per the National Water Policy. Our interview with community members confirmed that expectation of free water from project supported by the Government and NGOs and hence calling for more awareness rising on the policy directives by project implementers before embarking on construction of water facilities. There is a need in future to handle the project to community members with a clear exit strategy.

3.4 Rehabilitation and expansion of Tegeruka Maternity Ward

The project supported the construction of the maternity ward at Tegeruka dispensary. The evaluation team witnessed a very well-constructed maternity ward with positive expectations from the community members who were interviewed. This is encouraging for the project to respond to the needs of the community members. The

building is well constructed to the opinion of the evaluation team, there is minor technical issues found during the evaluation like materials used for doors and proper fixing of switches which will be rectified before handling over the project to the beneficiaries.

3.5 Knowledge, Attitude And Practices towards Preventing Under 5 Mortality

Improved knowledge, attitude and practices on prevention of maternal and children under five health problems is prerequisite for creation of demand to utilize the available services that promotes health and alleviates morbidities and mortalities. Results shows that majority of community members have knowledge on prevention of under-five. However, there are some prevailing myths which need to be dealt time to time like. While male involvement was mentioned as among the barrier for utilization of maternal and child health services, men play an important role to facilitate for the same if they have positive attitude about utilization of services by themselves and their partners. Poor participation of men to utilize services is a cultural and gender issue because men are socialized to view going to the health facilities early as a sign of weakness. Moreover, while they are not involved in maternal and child health education, they are entitled as head of their houses to make decision which eventually negatively affects the utilization and access to services for their partners.

3.6 Integration of Project Activities into the Existing Structures and Systems

We found that members of the council health management team (CHMT) had good knowledge of the project and they could explain the roles played by each partner in the project. They explained the way they will sustain the project activities by including the activities in comprehensive health plan and solicit other partners with interest with maternal and child health to push forward the district efforts. This is in line with the Health Sector Strategic Plan III*"Partnerships for Delivering the MDGs"* 2009 – 2015 which emphasizes community ownerships of Health services whereby Communities should feel more ownership of health services in their neighbourhood and take responsibility in the management of the health facilities, in committees or board. The CHMT members acknowledged their responsibility to sustain the Tegeruka project. They reported that projects come and go so as the government, they are responsible to sustain. With regard to Tegeruka, CHMT members reported availability of trained Government and Community members, presence of the specific

departments with responsibility of sustainability plan and maintenance of the infrastructures which have been built.

In discussing about successes of the project, they acknowledged changes in infrastructures including renovations of the dispensary, building the water tank at the health centre, solar and drilling of wells in the community. They were optimistic that bigger impact of the project will be evident in the near future.

With regard to transparency of the project components and financial issue, participants agreed that there were a reasonable transparency and that this was not the first time of collaboration with AMREF. This is encouraging if the community stakeholders are witnessing a positive trend towards transparency which is a key factor for ownership of health problems and solutions by the community members.

The ward development committee (WDC) and administrative structure responsible for ensuring that ward plans and policies are in line with the community needs and priorities and are implemented accordingly. Engaging them during project development, implementation and evaluation is vital.

As stated above, sustainability and advocacy for the project depend much when the WDC could learn from the success for policy advocacy and integration in on-going programs. In discussing with the WDC members, successes of the project were recognized in terms of expanding the dispensary to the level of being a health centre, building the water tank at the health centre, drilling of wells, and construction of pit latrines at Ketarayo secondary School. Moreover, they recognised training of the TOTs and CORPs for water and sanitation within the ward as success.

The WDC members acknowledged their responsibility to sustain and advocate for prevention of maternal deaths and deaths of children under five especially sitting the importance of water and sanitation, delivering at the clinic for pregnant mothers, engaging the water committee members to mobilize community member to share the cost and increasing the number of health providers.This is in line with the the National Road Map Strategic Plan To Accelerate Reduction of Maternal, Newborn and Child Deaths in Tanzania of 2008 – 2015 which emphasises the roles of WDC through the Primary Health Care (PHC) committee and health facility governing

committee is responsible for supervision and implementation of MNCH activities in their areas

CHAPTER FOUR: CONCLUSION AND RECOMMENDATION

4.1 Conclusion

In this evaluation of the Tegeruka project, we found a number of interesting observations that relate to the success of the project and related challenges. Perhaps the most obvious conclusion from this evaluation is that ; project implementation was successful despite internal and health system challenges that obscured its effectiveness in reducing maternal and child morbidity and mortality by integrating the maternal, child health and WASH component. This reflects the enthusiasm of both AMREF and Musoma District authority alike about reducing maternal and child health deaths in Tegeruka ward and the district in general.

Although this evaluation was a non- controlled post-test with a descriptive cross sectional design that could not allow to draw a causal relationships, the following observations emerged;

The implemented project has a potential of reducing maternal and child morbidities and mortalities by its innovative strategy of combining the maternal and child health interventions with the WASH component.

The project was well received by the community and it raised their hopes that the quality of health care services in their community is going to be improved. However, we realized that, the quality component was not well targeted by the project. This creates a discrepancy between the expectation (the cry) of the community and the project that was implemented that focused much on infrastructures than quality components.

The community was involved in the implementation of the project, although this involvement was partial. We found that the community was involved at the project implementation stage and were not involved in conceiving the project. Future projects should involve the community from conception of the project to its implementation in order to increase ownership and sustainability of the impact.

There was lack of supervision by the district authority (the CHMT and the district water engineer department) on the implementation of the project. Some infrastructure

was substandard as detailed above. Moreover, some of the district officials described the project as AMREF project, a notion that dilutes the collaborative efforts and jeopardizes the sustainability of the project

The community had some knowledge and positive attitudes to various ongoing health promotion interventions that relate to maternal and child health. This aspect is seen as a great achievement that future projects can capitalize on and focus more on community empowerment than knowledge-attitude-behavior interventions.

4.2 Recommendations

The following are general recommendations on the Tegeruka project. These recommendations can be applicable to other future projects that have similar nature to Tengeruka.

- There is a need of handing over the project to the district council with a clear sustainability plan (which should be agreed jointly)
- There is a need to address health system challenges together with specific project interventions. For example, the project could include a component that address human resource availability (recruitment, deployment and retention) but not only capacity building.
- Future projects should also look at the supply chain challenges that causes frequent stock outs of essential drugs
- Future projects of similar nature should be of at least 5 years in order that gains of the project are maximized and monitored over time.
- Capacity building and awareness raising to communities on water policy is important, future projects needs to involved District water department in the training and awareness raising of community on water policy, and formation of water management committees
- The project evaluated proved limited participation of the water department on supervising and certifying the works done by contractors. The evaluation team recommends the involvement of the District water department on supervision and evaluation of the works done by the contractor and on supporting the

communities with periodical maintenances to ensure the sustainability of the supported water projects

REFERENCES

Tegeruka project proposal: AMREF Tanzania, 2010

Mpembeni, R.M., Killewo, J.Z., Leshabari, M.T., et al., 2007. Use pattern of maternal health services and determinants of skilled care during delivery in Southern Tanzania: implications for achievement of MDG-5 targets. BMC Pregnancy and Childbirth 7, 29

Thaddeus S, Maine D: **Too far to walk: maternal mortality in context.** *Soc Sci Med* 1994, **38(8):**1091-110.

Kruk ME, Paczkowski M, Mbaruku G, de Pinho H, Galea S "Women?s preferences for place of delivery in rural Tanzania. a population-based discrete choice experiment" *American Journal of Public Health* 99 1666-72 2009

Kruk ME, Paczkowski M, Mbaruku G, de Pinho H, Galea S. . Women's preferences for place of delivery in rural Tanzania: a population-based discrete choice experiment. Am J Public Health. 2009 Sep;99(9):1666-72.

Tones, K.,Tilford, S:**An empowement model of Health promotion**. *Health promotion, effectiveness and equity* :Eddited by Keith.Tones and Sylvia Tilford.CHELTENHAM:Nelson Thornes,2001, 49-55.
Tanzania **Health Sector Strategic Plan** III **July 2009 – June 2015**Partnership for Delivering the MDGs"

Brikké, F. (2000) *Operation and maintenance of rural water supply and sanitation Systems: a training package for managers and planners.* Geneva, Switzerland, WorldHealth Organization. , http://www.who.int/water_sanitation_health/wss/O_M/Rural.htm retrieved on November 2012

Deverill, P.; Bibby, S.; Wedgwood, A. and Smout, I. (2002) *Designing water supply and sanitation projects to meet demand in rural and peri-urban communities.* Book 1. Concept, principles and practice. Loughborough, UK; WEDC.

Deverill, P.; Bibby, S.; Wedgwood, A. and Smout, I. (2002) *Designing water supply and sanitation projects to meet demand in rural and peri-urban communities.* Book 2.Additional notes for policy makers and planners. Loughborough, UK; WEDC.

Deverill, P.; Bibby, S.; Wedgwood, A. and Smout, I. (2002) *Designing water supply andsanitation projects to meet demand in rural and peri-urban communities.* Book 3. Ensuring the participation of the poor. Loughborough, UK; WEDC.

Fonseca, F., (2002) "Cost recovery taking into account the poorest and system sustainability", Delft, *International reference centre (IRC)*

Kothari, C.R (2004) *Research methodology: methods & Techniques,* 2nd edition. New Delh: Wishwas Prakashan

United Republic of Tanzania, (2002) *National Water Policy, United Republic of Tanzania,* Ministry of Water and Livestock Development, Dar es Salaam

United Republic of Tanzania, *2011/2012 Budget speech* Ministry of Water and Irrigation, Dar es Salaam, June 2011

United Republic of Tanzania, *2012/2013 Budget speech* Ministry of Water and Irrigation, Dar es Salaam, June 2012

United Republic of Tanzania, (2002) *National Water Policy, United Republic of Tanzania,* Ministry of Water and Livestock Development, Dar es Salaam

Wijk-Sijbesma, C.A. van (1987) *What price water?: user participation in paying for Community-based water supply: with particular emphasis on piped systems.* (Occasional paper series; no. 10). The Hague, the Netherlands, IRC International Water and Sanitation Centre.

APPENDICES

A: Household questionnaire

Final Evaluation for the TEGERUKA project in MUSOMA RURAL

Household Questionnaire

Women aged 18-49 years

Village: _____

Name of interviewer: _____

Date of interview: _____

Introduction / Greetings.

Hello. My name is …… We are here on behalf of the Ministry of Health and AMREF to assist Musoma District Council to improve its capability in provision of Maternal and child health services. We will be asking you several questions about Maternal and child health services. This interview is anonymous; your name will not be registered. Information in this questionnaire are used for project evaluation purpose only, we guarantee confidentiality of your information so feel free to answer questions based on the truth and your real feelings.

Do you have any questions for me at this time? YES.....1

NO.....2

Do I have your agreement to participate? YES .....

NO .....2 ➔STOP

A: GENERAL QUESTIONS

1. How old are you?..... (years)

2. What is your marital status?

a. Single b. Married c. Cohabiting d. Divorced e. widow f.Others…… (mention)

3.How long do you live in this village?

a. Less than one year b. one year to three years c. More than 3 years

4.What is your level of education?

a. No formal education b. Primary education c. Secondary education d. College and University e. Others

5.What is the level of education of your patner?

a. No formal education b. Primary education c. Secondary education d. College and University e. Others f. I don't know g. I don't have a partner

6. What is your main occupation?

a. employed b. peasant c. housewife d. petty business e. others (mention)……..

7 (A) How many children do you have?

a. None b. one to 3 c. More than 3

7 (B): How many are below 5 years?

a. None b. one to 3 c. More than 3

B: QUESTIONS ON THE PROJECT

8. Are you aware of MCH project recently implemented by AMREF at Tegeruka Dispensary and the community in general? Yes/ No (if No go to 11)

9. What actually was implemented at Tegeruka dispensary?

a. Renovation of Tegeruka Dispensary drilling bore hole and latrine b. Construction and equipping maternal ward c. Construction of the waiting shed for pregnant mothers and their accompanying partners/couples d. Construction of boreholes with hand pump in Maneke, Tengeruka and Kataryo villages e. Rehabilitation and protection of a traditional well in Mayani village

10. What changes (health related, behavioural and attitudinal) in your life have been brought about by the project?

a. I am confident with the services provided at the dispensary

b. I know when the importance of MCH services

c. I know the importance of immunisation to children

d. I know the importance of sanitation and hygiene

e. I appreciate what the project have brought to this ward

f. Others

C: ACESS TO MATERNAL AND CHILD HEALTH SERVICES

11. Have you ever received MCH services at the dispensary in the past three yeas Yes/No (if No go to 13)

12. Which services were you seeking?

a. ANC, Postnatal b. Child health, c. both e. Others (mention)

13. why have you ever not received any of the services at the dispensary?

a.I have been health all this time

b. I don't have trust on the services offered

c. I prefer to go to traditional birth attendant

d. I have been receiving in another health facility

e. Others (mention)

14. When was the last time you attended the ANC services ?

a. less than a month b. 2 to 3 months c. More than three months d. Never (if d go to 16)

15.What were you checked at RCH in the last visit?

a. Anemia b. Sexually transmitted diseases d. Blood pressure e. HIV infection f. Others [ask for a RCH card]

16. When was the last time you sent your child for RCH services ??

a. less than a month b. 2 to 3 months c. More than three months d. Never (if d go to 19)

17. Which service did the child receive last time [ask for the card]

a. immunisation b. weighing c. Deworming d.treatment e. others

a. medical care b. immunisation c. child weight monitoring d. other (mention)

18. How can you rate the services you received?

a.Excellent b. very good c. good d.Satisfactory e. Poor f. Very poor

19. Have you ever missed RCH services because of

a. lack of transport b. Problem with health service provider c. Cultural difference d.Absentism of the health care provider e.Other reasons f. Not applicable

20. Have you ever been referred to another health facility?

Yes/No (if No go to 22)

21. What were the reasons for the referral?

a. absence of drugs b. complications c.absence of medical equipments d. others

22. How useful was the information you got at the RCH?

a. very useful b. useful c. I cannot say d. Not useful

23. What message applicable to the community in general did you get from the RCH?

a. Health education on communicable diseases b. Health education on MCH services c. Health education on sanitation and hygiene d. others (mention)

24.What services are provided for Pregnant women at the dispensary ?

a. ANC b. Normal deliveries c. Postnatal care d. Others

25.What services are provided for children?

a. immunisation b. child growth monitoring c. Deworming d. Treatment of common infections e. others (mention)

26. Are outreach services provided in this village? Yes/ No (if No go to 28)

27 How often per month ? …….

28.Does your patner accompany you in when attending RCH services? Yes/ No

D: KNOWLEGE, ATITTUDES AND PRACTICES ON PREVENTING U5 MORTALITY

29. The following practices can help to reduce child mortality

		Agree	Neutral	Disagree
a	Breastfeeding			
b	Immunisation			
c	Continuous growth monitoring			
d	Delivery in health facilities			
e	Family planning			
f	Hygiene practices			
g	Screening of medical conditions during pregnancy			
h	ORS use			

30. Attitudes toward reducing under five mortality

		Agree	Neutral	Disagree
a	Exclusive breastfeeding for six months will prevent children from being sick			
b	Immunisation can prevent children from being sick			
c	Continous growth monitoring for underfive children is important			
d	All childhood illnesses are curable when you seek for services early			
e	One should improve hygiene in the sorroundings to prevent childhood diarrhoea			
f	Some childhood illnesses are curable by traditional healers and not in health facilities			

Thank you for your participation

B: Faclity questionnaire

Final Evaluation for the TEGERUKA project in MUSOMA RURAL

Facility Questionnaire

Name of facility……..

Name of interviewer……..

Date of Interview……

Introduction / Greetings.

Hello. My name is …… We are here on behalf of the Ministry of Health and AMREF to assist Musoma District Council to improve its capability in provision of Maternal and child health services. We will be asking you several questions

about Maternal and child health services. This interview is anonymous and information in this questionnaire is used for project evaluation purpose only, we guarantee confidentiality of your information so feel free to answer questions based on the truth and your real feelings.

Do you have any questions for me at this time? YES.....1

NO.....2

Do I have your agreement to participate? YES .....

NO…… 2 ➔STOP

A: Characteristics of the respondent

1. Respondents gender : Male/Female
2. ***2.*** Are you in charge of this facility/ unit :Yes /No***) if No go to 4***
3. For how long have you been in charge here : a)less than one year b) One year to 3 years c) more than 3 years
4. What is your job title: a) Medical officer b) Assistant medical officer)clinical officer d)Registered nurse) Enrolled nurse f) Medical attendant
5. For how long have you worked here: a)less than one year b) One year to 3 years c) more than 3 years

B: Characteristics of the health facility

6. Type of the facility a) Hospital b) Health centre c)Dispensary
7. Who owns the health facility? a) Government b) Private for profit c)FBO
8. What is the catchment population……
9. Facility main source of water a) Well b) underground water tanks c) pipe water
10. Availability of electricity Yes/No, if Yes- a) National Grid b) Solar c)Genearator d) other sources
11. When was the last time the CHMT supervised the facility?.....
12. When was the facility last renovated ……..(months)
13. Who renovated the facility …….
14. How is disinfection of contaminated materials done?
    a)Autoclave b) Steam sterilisation c) Boiling and chemicals d) Chemicals only e) Boiling only f) Others g) use disposables only

15. How does this facility dispose contaminated materials

    a) Burned in incinerator b) burned in open pit c) burned and buried d) throw in trash/open pit e) throw in pit latrine f) removed offsite g) others

16. Can you mention major problems faced by the facility (rank them)

    1…….

    2……..

    3…….

17. What is the number of available staff?.....(by cadre)

C: Services provided by the facility

18. Which of the following services are provided by this facility? …list of services

19. Does this facility do outreach? YES/NO
20. How many times per week? …….tmes how many villages? …….villages
21. Who does this outreach? 1) Clinician 2) RN 3) EN 4) MA 5) community health care Workers

D: Availabity of protocols and guidelines

22. Do you have the following protocols and guidelines? If yes, may I see the guide it?

Protocol/guideline	observed	Reported available but not seen	Not available	Remarks
IMCI				
Antenatal care				
PMTCT guideline				
Family planning guidelines				
Emergency obstetric care guideline				

Essential drugs guidelines				
Immunization Posters				
Breast feeding Posters				
Family Planning Posters				
Pregnancy (Danger Signs) Posters				
Nutrition Posters				

23. Do you have referral records of the maternal and child health services?

YES/ No

If yes, may I see the book

E: Availability of medical supplies and equipments for maternal and child health

24.Are the following drugs available today?

Drugs	Yes	NO
Paracetamol		
Gentamycin		
ORS		
Paed Zinc		
ALU		
Quinine		
Cystalline Penicilin		
Oxytocin		
Misoprostal		

Magnesium sulphate		
Cotrimoxazole		
Ceftriaxone		

25. Are the following medical equipments available? Can I see them?

Equipments	Yes	NO
Delivery kits		
Delivery beds		
Weighing scale		
Bp machine		
Suction machine		
Sterelizer		
Microscope		

26. Have there been supply stock-outs in the last six months? Yes/No

27.Have there been problems obtaining supplies? Yes/No

28. Is the supply of drugs and medical supplies for maternal and child health sufficient? Yes/ No

29. Where can the patients go to seek health care if they miss here?

1) Nearby dispensary 3) District hospital (…km)

30. The following services are important key in reducing child mortality

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
a	Breastfeeding					

b	Immunisation					
c	Continuous growth monitoring					
d	Skilled deliveries					
e	Family planning					
f	Hygiene practices					
g	Screening of medical conditions during pregnancy					
h	Integrated management of child health illness (IMCI)					

C: Focused Group Dicussion and Key Infomant Interview Guide

FGD GUIDE –English with Community members living at Tegeruka ward

Date: _____ Start Time: _____End Time:_____

Community/Pilot Site: _____

Type of Group Interviewed (men or women, etc.)_____# Of people……

Name of Facilitator/s:

_____

Introduction

1. INTRODUCE MODERATORS, TRANSLATORS, RECORD KEEPERS

2. INTRODUCE TOPIC OF RESEARCH

- We would like to talk to you about taking part in discussion group(s) conducted by us to learn more about the project implemented by AMREF and Musoma District council at Tegeruka ward to improve MCH.

- The findings from this discussion will be used to inform different stakeholders who are responsible to design and plan for policies and programs to MCH

- During this workshop, we do not have presuppositions and there are no correct answers. We are specifically seeking the learn from you.

3. SECURE INFORMED CONSENT

No one except the group leaders and the other group members will know that you took part in the study. The groups will be tape recorded with voices only. All discussions and activities will be transcribed (first in Kiswahili and then translated into English). The tapes will be destroyed after we have transcribed the information into written form. Note takers will write down opinions and what the group thinks during the sessions. We will not record your name or any other personal things about you during the groups. We ask that participants not reveal outside the group information they may have heard in the group.

Finally, tell participants that if they don't wish/no longer wish to participate in the study for any reason, they may withdraw at any time. Encourage them to ask any questions they have.

Do you agree to be interviewed

NOTE WHETHER RESPONDENTS AGREE TO INTERVIEW.

[ ] AGREES TO BE INTERVIEWED.

[ ] DOES NOT AGREE TO BE INTERVIEWED

Please record the number of people who do not agree.

TO BE COMPLETED BY INTERVIEWER

I CERTIFY THAT I HAVE READ THE ABOVE CONSENT PROCEDURE TO THEGROUP.

SIGNED: _____

4. ESTABLISH GROUND RULES

- Everybody's ideas have merit
- No judgment or discussion of other's ideas
- One person to speak at a time
- Ideas (contributions) are anonymous.

A) Acceptability of the Project

1. How to you describe the project implemented at Tegeruka by AMREF in collaboration with the District Council? Probe to know if they are aware about it?

2. Do you think this community was in need of such a project to improve MCH? Probe if it was well received or not and reasons why?

B) Knowledge, attitudes and practices towards improving MCH

1. What do you think needs to be done to reduce death of less than 5 years in your community?
2. What do you think needs to be done to reduce death pregnant mothers before and after delivery in your community?
3. What do people say about the project implemented by AMREF and District council at your community to improve MCH? Probe on its effectiveness how? Or why not?
4. What do people do differently at your community regarding preventing maternal death and children under-five when you compare with some years before the project and why? Probe, what do people used to do before and why?
5. What do you say about men participation in MCH services before and after this project?
6. What would you advice differently if the same project was going to be implemented somewhere else?

KI Guide: Introduce as above (KI/meeting with WE0, councilor, secretary and Chairperson of the health facility board)

A)) ***Stakeholders opinions on sustainability of the project***

1. What successes do you see in relation to the Tegeruka project
2. How can those successes be sustained in long term?
3. How do you describe our role to sustain this project in long run?
4. What improvements to you think needs to be done if similar project was to be replicated for sustainability

KI Guide: Introduce as above (KI/meeting with CHMT)

A) Knowledge, attitudes and practices towards improving MCH

1. What success do you relate with Tegeruka Project so far?
2. What activities do you think contributed to the success you see?
3. What do other service providers say about the project especially its effectiveness to improve MCH?
4. How are community members responding to the changes that have been done at this facility in terms utilization of its services?
5. How are men responding to support their partner's use of maternal health services especial PMTCT and MCH in general?
6. What do you think needs to be done to improve services for maternal health at this health facility?
7. What improvements to you think needs to be done if similar project was to be replicated for better results in maternal and child health?

B) ***Integration in the district health system structure?***

1. How Tegeruka activities have been integrated in the district health structure
2. Which Tegeruka activities have been directed adopted in the District health plans
3. What can be done better to facilitate integration and sustainability of Tegeruka activities
4. What improvements to you think needs to be done if similar project was to be replicated for better integration?