

BEST PRACTICES HAND BOOK 7 (2019)

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List of Abbreviations

AAS	Assistant Administrative Secretary
ADF	Agency Delegated Functions
ALAT	Association of Local Authorities In Tanzania
AMCOs	Agricultural Marketing Cooperatives
AMSDP	Agriculture Market Support Development Programme
ASDP	Agriculture Sector Development Prgramme
BEONC	Basic Emergency Obstetric and Neonatal Care
BLET	Bylaws Enforcement Technique
BOQ	Bill of Quantitates
BOT	Build Operate Transfer
BRELA	Business Registrations and Licensing Agency
CBD	Central Business District
CDO	Community Development Officer
CHF	Community Health Fund
CHMT	Council Health Management Team
CMA	Community Mobilization/Awareness Approach
CMT	Council Management Team
CRC	Convention of Child Rights
CVL	Central Veterinary Laboratory
D by D	Decentralization by Devolution
DANIDA	Danish International Development Agency
DC	District Council
DED	District Executive Director
DP	Distribution Points
HLGA	Higher Local Government Authority
ICG	Irrigation Comprehensive Guideline
IFAD	International Fund for Agriculture Development
IGA	Income Generating Activities
10	Irrigators Organization
IPPE	Integrated Post Primary Education
JICA	Japan International Cooperation Agency
JTI	Japan Tobacco International
LAT	Local Allocation Tax Grant
LED	Local Economic Development
LG	Local Government
LGA	Local Government Authority
LGRCIS	Local Government Revenue Collection Information System
LGRP	Local Government Reform Programme
LGTI	Local Government Training Institute
MEO	Mtaa Executive Officer
MILEPROMA	Mirerani Leather Processing and Product Manufacturing
MIVARF	Marketing Infrastructure, Value Addition and Rural Finance Support Programme
ΜΚUKUTA	Mkakati wa Kukuza Uchumi na Kuondoa Umaskini Tanzania
MoHCDGEC	Ministry of Health Community Development Gender Elderly and Children
MoU	Memorandum of Understanding
MoU	Memorandum of Understanding
MP	Member of Parliament
MSD	Medical Stores Department
ND	Newcastle Disease
NGOs	Non - Governmental Organizations

NHIF	National Health Insurance Fund
NIRC	National Irrigation Commission
NMB	National Microfinance Bank
O&OD	Opportunities and Obstacles to Development
TLO	On the Job Training
OVOP	One Village One Product Movement
PEDP	Primary Education Development Programme
PIDP	Participatory Irrigation Development Programme
PO – RALG	Presidents' Office, Regional Administration and Local Government
POS	Point of Sale
РОТ	Post Osaka Trainings
PPP	Public –Private- Partnership
RAS	Regional Administrative Secretary
RC	Regional Commissioner
RHMT	Regional Health Management Team
RRH	Regional Referral Hospital
RS	Regional Secretariat
SACCOs	Savings and Credit Cooperative Societies
SAP	Structural Adjustment Programme
SEDP	Secondary Education Development Programme
SHCCA	Stake Holder Collaboration and Contribution Approach
SIDO	Small Industry Development Organization
SUDP	Sustainable Urban Development Programme
TAHA	Tanzania Horticultural Association
TBS	Tanzania Bureau of Standards
TFDA	Tanzania Food and Drugs regulatory Agency
TFS	Tanzania Forest Services
TGA	Tree Growers Association
ΤΟΑ	Tanzania Osaka Local Government Reform Alumni
ТР	Transit Permit
TRA	Tanzania Revenue Authority
ULGSP	Urban Local Government Strengthening Support Programme
UNFPA	United Nations Population Fund
UWAMIMA	Umoja wa Wapandaji Miti Matembwe
VEO	Village Executive Officer
WAEO	Ward Agriculture and Livestock Extension Officer
WDC	Ward Development Committee
WEO	Ward Executive Officer

Foreword

Local Government Reforms in Tanzania are primarily focused towards effective Service Delivery by Local Government Authorities (LGAs) within the Central Government's Policy Framework. The reforms have attracted cooperation between the Government of the United Republic of Tanzania, Development Partners and many other stakeholders. Through this cooperation, the Local Government Reforms in Tanzania have successfully generated democratic Local Governments, rationalized local human resourcing, increased fiscal disbursements, improved local governance, increased local participation and increased local government autonomy in Service Delivery.

The Local Government Reforms in Tanzania have been implemented in a comprehensive approach that has involved learning Local Government Reform initiatives and implementation in other countries which led to designing an appropriate implementation modality for Tanzania. Since 2002 the Government of Tanzania through the President's Office – Regional Administration and Local Government (PO-RALG) and the Government of Japan through Japan International Cooperation Agency (JICA) have jointly conducted training on Decentralization reforms in Japan namely "Osaka Training". This training has been attended by selected PO-RALG Directors/staff, Regional Administrative Secretaries, Council Directors and other Local Government Reform stakeholders. Following Osaka Training, Regional Post Osaka Trainings (POTs) have been conducted to Assistant Administrative Secretaries (AASs) and Heads of Departments (HODs) from LGAs to share lessons learned during Osaka Training in Japan.

Both Osaka Training and Regional POTs have provided opportunity for Tanzanian Central and Local Government Staff to learn the Japanese Decentralization Reforms Experiences, select the best Japanese decentralization lessons and implement the lessons learnt within the Tanzanian context. The implementation of the lessons learnt from Japan has resulted into identifiable <u>"Best Practices"</u> by specific Regional Secretariats (RSs) and LGAs. This has created urgency for reporting the best practices in the form of a handbook to make other RSs and LGAs appreciate and learn from the local successful implementation and the secrets for success.

This Seventh Best Practices Handbook is a continuation of the joint efforts of PO-RALG and JICA to strengthen Decentralization by Devolution (D by D) in Tanzania. The Handbook provides the History of Osaka Training and the Best Practices in the following order; Chapter One summarizes the lessons learnt from Japan; Chapter Two focuses on Self Help Efforts for Improved Service Delivery and has Cases from Ludewa DC, Mbulu TC, Msalala DC, Dodoma CC and Mpwapwa DC. Chapter Three is on Participatory Service Delivery and has cases from Njombe TC, Njombe DC, Makambako TC, Kiteto DC, Singida MC, Iramba DC, Shinyanga MC and Kondoa TC. Chapter Four focuses on Local Economic Development with cases from Kiteto DC, Simanjiro DC, Mbulu DC, Singida DC, Mkalama DC, Shinyanga DC and Kishapu DC.

PO-RALG recommends the RS and LGA staff as well as all stakeholders of Local Government Reforms in Tanzania to read the handbook, appreciate the specific local initiatives, learn the secrets of success and use the available local opportunities to perform better in the D by D context.

ENG. JOSEPH M. NYAMHANGA PERMANENT SECRETARY - PO-RALG

Preface (TOA)

Cooperation between the two Governments (Tanzania and Japan) through Osaka Training since 2002 resulted into establishment of Tanzania Osaka Local Government Reform Alumni (TOA) in 2006. This Alumni is formed by all Regional Administrative Secretaries (RASs), Council Directors and all exparticipants of Osaka Training and POT. TOA endeavors to build capacity to her members in order to become champions of Local Government Reforms. Implementation of lessons learnt during Osaka Training has resulted into improved service delivery to the communities within the Framework of "D by D".

For the purpose of enhancing horizontal learning amongst stakeholders, TOA decided to publish a series of best practices reported by members in a reader friendly Handbook . This is the seventh handbook. TOA anticipates to issue more Handbooks in the future concurrently with continued implementation of lessons learnt from Osaka and POTs.

The completion of Best Practices Handbook 7 received support from various institutions and individuals. TOA would like to acknowledge and express gratitude to the PO-RALG for forging a Memorandum of Understanding with the Government of Japan, financing and allowing Tanzanian senior staff to attend training on Decentralization Reforms in Japan since 2002 to date. Secondly, TOA extends sincere appreciation to the Government of Japan through JICA for designing, supporting and funding the Osaka Training and POTs and production of this Handbook. TOA also would like to recognize and appreciate initiatives of the RASs and Council Directors in implementing the lessons learnt and their readiness to prepare detailed cases that appear in this seventh handbook.

TOA appreciates the contribution of Mzumbe University and Local Government Training Institute (LGTI) for providing consultants. Analysis and synthesis of the Best Practices in this Handbook 7 was done by Mr. Paulo F. Faty (Lecturer at Mzumbe University) and Mr. Ahmed Nassoro (Assistant Lecturer at the Local Government Training Institute – Hombolo) while lessons learnt in Japan were explored by Mr. Michiyuki Shimoda (Senior Advisor, PO-RALG). TOA deeply commends their work and thanks them all.

Lastly, TOA would like to extend appreciation to all PO-RALG staff, JICA staff and TOA leaders who participated in various meetings that improved and concretized this Handbook. It is not possible to list down all contributors to this work. However, TOA values all offerings made by various institutions and individuals.

Finally disclaimer; though many individuals and institutions have contributions in this Handbook, TOA and the analysis team remain responsible for errors and omissions that might be perceived by readers of this Handbook. However contents found in each case remain the responsibility of respective LGAs and RSs.

PROF. RIZIKI SHEMDOE TOA CHAIRPERSON

Preface (JICA)

Dear Distinguished Readers!

Implementation of D by D Policy in Tanzania has taken more than 15 years now with the objective to improve service delivery by devolving functions, responsibilities and resources from Central Government to Local Government.

Based on the above, JICA's cooperation has been geared to support implementation of this policy by focusing on strengthening local service delivery through LGA's capacity development as well as Sector development in the fields of Health, Agriculture, Water and Roads.

Since 2002, JICA in collaboration with PO-RALG has been conducting the training on Local Government Reform Programme (LGRP) which is called "Osaka Training." It targeted top management officials in Local Government Reforms i.e. RASs, Council Directors, PO-RALG Officials and Higher Learning Institutions, with the purpose of learning experiences of Japanese Local Government Reforms. On their return, the knowledge and experiences were shared during POTs (2003 – 2018). As a result, Tanzania – Osaka Local Government Reform Alumni (TOA) was established in a view to create a platform where members have opportunity to share experiences, good practices and challenges. JICA has been supporting the institutional building of TOA.

Implementation of lessons learnt from Osaka training resulted into a number of best practices presented from RSs and LGAs during POTs conducted in Njombe, Manyara, Singida, Shinyanga and Dodoma Regions in 2018. Through verification and analysis of these best practices, this seventh "Best Practices Hand Book" is finally produced. The Handbook verifies that we have to learn not only from other countries but also from many initiatives within the country.

I am happy if you learn some tips from this handbook and take small but concrete steps forward in improving implementation at ground.

We would like to explore the next Best Practices stimulated by the handbook and the training. We hope to strengthen the horizontal learning platform for field level in future and improved service delivery in Tanzanian communities.

NAOFUMI YAMAMURA CHIEF REPRESENTATIVE - JICA TANZANIA OFFICE

Chapter One

Introduction; Lessons Learnt from Japanese Experience

1.0 OSAKA TRAINING

This Handbook was elaborated by Tanzania Osaka Local Government Alumni Association (TOA). TOA is an alumni association of a training course offered by Japan International Cooperation Agency (JICA). The training is entitled "Country Focused Training Course - Local Government Reform Programme in Tanzania", but more popularly known as "Osaka Training". The Association is composed of all RASs, Council Directors, senior PO-RALG staff and all ex-participants of Osaka Training.

"Osaka Training" started in 2002. During the initial five years, all the RASs from 21 Regions of the country (at that time) together with two Council Directors of the respective Regions were invited. Also high officials of PO-RALG (Directors, Asst. Directors)¹ as well as the Secretary General of ALAT and some prominent academicians participated in the Course.

Due to the remarkable impact and outcome, JICA decided to continue with the same programme, widening its scope to three other African Countries that have been promoting or planning decentralization reforms, namely Kenya, Uganda and Zambia, in addition to Tanzania. Towards the end of 2018 a total of 213 Tanzanian reform leaders including RASs and Council Directors have directly benefitted from Osaka Training. Furthermore, those participants, after returning to their respective Regions, conducted local seminars called "Post Osaka Training" to share the experience and knowledge acquired in Osaka, inviting all the remaining Council Directors together with Head of Departments. Thus the beneficiaries of the said Training were expanded to more than 1,500, and the membership of TOA came to cover all the RASs and the Council Directors.

Based on various lessons learned in Osaka and Post Osaka Trainings, the participating LGAs elaborated Action Plans to improve their performance. Having more than 15 years of the history, it has been confirmed that there are a number of useful good practices emerging in many LGAs through implementing the above-mentioned Action Plans which could be worth sharing with others. It was therefore decided in TOA to verify and analyze such cases and compile this handbook, so that the LGA leaders can refer to such cases and apply any of them if they consider appropriate and feasible, with a view to improving their works.

Before going into the respective cases of good practice, however, we would like to see in this chapter why JICA decided to offer this training to Tanzanian reform leaders, what was the meaning of Osaka Training to Tanzania, and what kind of issues were discussed there.

¹ Including Hon. A. Mwanri (Deputy Minister) and Ms. M.K.Tarishi and Mr. H.A.Katanga (former Permanent Secretaries)

2.0 BACKGROUND OF OSAKA TRAINING

Why did JICA decide to offer such course, and what was the meaning of it to Tanzania?

2.1 JICA's Views on the Decentralization Support

JICA has some unique views on the governance support which may differ from other development partners. It has been observing that many strong interventions have been made in the developing countries by the development partners such as the Structural Adjustment Programme (SAP) and the governance support including decentralization reforms. However, it can be said that these programmes and reforms applied in the developing countries are almost the same as what are currently tried in the developed countries, irrespective of the great difference in the background and the conditions between the former and the latter. Also it is often observed that these reforms are promoted under a strong pressure from the donors, without ensuring endogenous development process and ownership of the recipient country.

Based on the bitter experience of failures in international cooperation of this kind, JICA has the following principles in carrying out the decentralization support:

- (i) There is no universal model that can be applied to all countries.
- (ii) Decentralization itself is not an objective, but a means to achieve something.
- (iii) Internalization and endogenous development through nationwide discussion is essential.
- (iv) How to ensure National Minimum Standard² is essential in designing decentralization reforms.
- (v) Decentralization Reform is a long process, which should not be treated as a mere "project".
- (vi) Too rushed decentralization reform will rather bring chaos. In any reform efforts for D-by-D, it is essential to secure enough conditions on the side of LGAs and local society to receive such huge responsibilities devolved.

2.0 The Big Challenge of Tanzanian LGRP Observed by the Formulation Mission in 2002

Upon request from the Government of Tanzania for a training programme on local government reforms in 2001, JICA decided to dispatch a mission to analyze the situation and formulate a training course with most adequate contents to address the important issues. When the mission visited Tanzania in November 2002, it observed the following serious challenges that Tanzanian LGRP was facing:

- (i) Huge and detailed Log Frame (more than 80 pages!)
- (ii) LGRP was being implemented with such a beautiful but rigid Log Frame defining all the details of activities. The mission observed that there was very little room left for flexibility to allow "trial and error" that is considered to be essential. The mission felt as if everything was predetermined and the Tanzanian Government was obliged to follow that rail without "deviation" and "going back".
- (iii) Prepared mostly with strong "assistance" from the Donor Group
- (iv) The common basket funding donors formed the steering committee together with the Government. Programme design was contracted out to external consultants and even implementation itself as well. The mission was worried that the Programme was elaborated without passing sufficient process of awareness building within the nation and consensus based on their own felt needs.
- (v) Danger in too much rushing to D-by-D

² National Minimum Standard is a concept that a minimum level of services must be secured even in poor remote rural areas just as in big cities.

The policy of D-by-D promoted by the Government seemed to the mission as if Tanzania was looking for almost the same type of model as the recent trend in the developed countries. A question was raised if the capacity and mind-set of LGAs as well as that of the Central Ministries were ready for such a drastic change. The mission observed the following challenges in this regard:

- Resistance from the Sector Ministries
- Lack of in-depth discussion over D-by-D in the society
- Not yet sufficient capacity development in LGAs to assume the devolved duties

2.3 Possible Utility of Japan's Experience in Nation Building and Decentralization Reforms – Message Given from Japan to Tanzania in Osaka Training

Having observed the above-mentioned situation of Tanzania, JICA considered that Japan's experience of her nation building and long decentralization reform process could be fairly relevant and useful for Tanzanian reform leaders to learn and review their own reforms.

Japan is a small Asian country outside the Western Civilization that started her nation building as a backward country and later achieved remarkable development. She has ample interesting experience of applying external models (Western models), which other donors do not have. (European Countries have been always the frontrunner at the center of the world and no need to learn from outside.) In fact, Japan started her nation building and development, trying to copy Western models, but failed at the initial stages. Since then, it was a long process of "trial and errors" until eventually reached the creation of her own unique model called "Half-Japanese Half-Western Model". Japan believes that this kind of creation process with strong ownership through repeated "trial and error" is very important for the Country's sustainable development.

This process model that Japan took for establishment of her local government system as well as decentralization reforms is quite different from the European model that many of the developing countries are currently trying to introduce. JICA thought that presenting such a "different model" could be useful by itself, since if they have only one model, it becomes the "absolute model", but when they have more than two, they can start comparing and see which part of which model is more suitable to their own situation, which is an important first step towards creation of their own model.

The following are just a few examples of the interesting learning points from Japanese model, among many:

(1) Very slow but steady reform process

Japan took 110 years since she started development of local government system and decentralization, and 55 years even counting from the start of major decentralization reforms after the World War II, before reaching eventual D-by-D which was realized in 2000.

The government tried to make sure that LGAs have acquired enough capacity before devolving functions, instead of rushing for institutional reforms of D-by-D.

This experience of Japan gives opportunities for Tanzania to think twice whether their speed is not too fast, and if at all they have to keep the current speed, then how to ensure adequate capacity development process of LGAs.

(2) Agency Delegated Functions (ADF)

In fact, during the above-mentioned 55 years, the government chose the modality of "delegation" called ADF as a transition measure, instead of jumping directly to "devolution". Because of this modality, Japan has been criticized by the Western countries for long that she is not appropriately decentralized, and eventually the government decided to go for real D-by-D in 2000, getting rid of ADF.

However, it is now confirmed that ADF has contributed significantly to healthy development of the LG system and to the successful realization of eventual D-by-D in the case of Japan, especially in the following aspects:

- Thanks to ADF, LGAs worked in close consultation with the Central Ministries concerned, and could develop their capacity through On-the-Job Training (OJT) with close technical backstopping from the Ministries. Whenever LGA officers face difficulties, they could consult with Ministry officials by phone, and the latter kindly helped the former to solve the problem together. All these were possible because the work was supposed to be under the responsibility of the Central Ministries but delegated to LGAs. Thus there was no resistance from the Ministries but cooperation, unlike many developing countries promoting D-by-D.
- The whole idea was to make sure that the limited available resources in the country could be mobilized to the maximum extent towards one direction, i.e. development of the nation, instead of fragmenting them and creating conflict between CG and LGAs.
- It was especially important at the initial stages where LGAs' capacity was weak. Without ADF during that time, LGAs could have neither performed their duties to serve for the people nor develop their capacity.
- Another important factor was "OJT", as mentioned above. Thanks to this process of OJT for 55 years, all the staff of LGAs as well as their organization itself could develop their capacity enough, receiving transfer of know-how and expertise from the Ministries, and were ready when the government decided for eventual D-by-D.

This experience of Japan poses a fundamental question to Tanzania on how to ensure reliable and effective capacity development process of LGAs while proceeding with D-by-D, making sure the maximum mobilization of the limited resources of the country and avoiding resistance from the Sector Ministries.

(3) Personnel Exchange System between CG and LGAs

In Japan, during the initial stages of the reform, the modality of personnel exchange between CG and LGAs was used quite often as one of the most effective means to a) fill the gap of qualified staff especially in the poor remote areas, and b) promote transfer of know-how and expertise from CG elite to weak and inexperienced LGAs staff in order to develop capacity of those LGAs.

The Government created a big pool of elite officials in Ministry of Local Government and assigned them to difficult LGAs in the most remote areas in order to help them. This secondment was normally for 4-5 years, after which they returned to their respective mother ministries. The more capable they are, the more remote and difficult LGAs they were sent to. But when they succeeded in performing well in those duty stations, they were promised a good promotion upon their return, which was an important incentive for the elites to go to such unattractive places with high motivation. Also, many LGAs sent their staff to the Central Ministries to work there, with a view to getting OJT on certain subjects that the respective LGAs are interested in.

After repeating several cycles of such personnel exchange, a lot of know-hows and expertise were transferred effectively from CG to LGAs, which tremendously helped the capacity development of LGAs in Japan. Now, LGAs in Japan are self-sufficient in their human resources without any need to depend on CG anymore.

It is obvious that if too rigid human resources decentralization is carried out without careful provision of countermeasures, it will create a serious gap of personnel in the LGAs in poor remote areas. It was for this reason that Tanzania decided to "recentralize" major part of the human resources management. However, it does not make much sense to promote D-by-D without human resources decentralized. Instead of "0 or 100", it is required to consider certain strategy on how to go about HR decentralization but avoiding at the same time the gap in rural areas, and ensuring a certain process to develop future capacity of such LGAs.

3.0 THE ISSUES RAISED AND DISCUSSED DURING OSAKA TRAINING

Due to space limitations, only a few most fundamental issues could be presented in the section above, among many messages given from Japan to Tanzania based on her own experience. Here, some other points will be itemized below with brief explanations.

3.1 General Issues

The following issues and questions were raised to be discussed during Osaka Training:

- (1) Importance of capacity development of LGAs as necessary preconditions for successful decentralization
 - Are there no risks of stagnation of the service delivery, decentralizing so much responsibility in such a short period?
 - How to cope with the situation where LGAs need to be equipped with enough capacity to assume all the devolved functions?
 - What about recruitment? How to secure qualified personnel in the LGAs of poor and remote areas?
 - How to fill the gap of know-how and experiences in LGAs and develop them? Is it not necessary to ensure some mechanisms of transfer of know-how and expertise, as well as technical backstopping from CG to LGAs? Is it not important to nurture collaborative relationship between CG and LGAs, instead of always looking for external support?

(2) Decentralization and Development

- In order to achieve socio-economic development of the country with very limited resources available, it is essential to seek for the best strategic mobilization of these available resources. (This is what Japan has been doing for her development.)
- How to manage the Country's development and decentralization together which are sometimes contradictory each other. How to make sure to avoid fragmenting the resources and conflict between CG and LGAs as well as among different LGAs?

(3) Decentralization and National Minimum Standard

How to manage between decentralization and National Minimum Standard? How to ensure the LGAs in poor remote rural areas to have as good capacity as those in rich cities in terms of service delivery to the people? (human and financial resources)

(4) Reality of the LGAs' Capacity for Service Delivery

A question was posed as to how many extension officers are there in one LGA including those who are deployed at Ward and Village levels, in order to let the participants realize what a harsh situation the Tanzanian LGAs are obliged to cope with. Compared to less than 100 in Tanzania, just taking one example, Nagano Prefecture³ in Japan which is rather smaller prefecture in rural area has more than 1,500 agricultural extension officers. Moreover, there are 77 lower LGAs within the said Prefecture, each of which employs 20-30 extension workers. It means the

³ Prefecture in Japan is somehow comparable to Tanzanian Districts in size. (Though in many cases, Tanzanian Districts are far bigger than Japanese Prefectures.)

farmers in Nagano Prefecture are enjoying the services provided by more than 3,000 LGA extension workers, compared to Tanzanian farmers who have less than 100⁴. Furthermore in Japan, there are a number of private companies that sell agricultural machineries, fertilizer, agrochemicals, seeds, etc. together with strong agricultural cooperatives, all of which provide a number of extension services and technical supports.

We should recognize the above-mentioned harsh realities, and start our strategy from there. We should not dream as if it is possible in Tanzania to realize as good service delivery as the industrialized countries with such a small number of staff to cover a huge area, if the Government is to do everything alone.

(5) Importance of people's self-help efforts, and collaboration between LGA and communities

- Because of the above-mentioned harsh reality, it is indispensable to make maximum use of people's potential for self-help efforts in order to implement better service delivery.
- It is JICA's belief that if people are properly guided and facilitated, they will be able to do a lot of things by themselves, including construction of primary schools, dispensaries and community roads, and maintaining them.
- In the case of Japan as well, at the initial stages of her development, the Government was too poor to construct primary schools, for example. It was the community people who contributed from their pocket and worked together to construct, and furthermore, looked for somebody who can teach and paid them their salary. That is why many of the schools at that time in Japan were not "public" but "private", which means "community owned schools". It was only after several decades that the government became well-off and started owning them as public schools.
- It requires a kind of mind-set change of the Government as well as people, from thinking that it is the government to provide all the services for people, into a perception that people can do a lot by their own self-help efforts and the government is to facilitate such process instead of implementing everything alone.

(6) Importance of defining adequate size of LG units, and develop innovative mechanisms to reach out from LGAs to communities

- From the above-mentioned requirement, it is crucial to develop much stronger mechanisms for LGAs to reach out to communities. In Tanzania, area covered by LGA is relatively big compared to that of Japan, so it is important to think how to bridge between LGAs and communities.
- From the viewpoint of nurturing strong sense of local autonomy among people, the LG unit should be small enough so that people can feel that it is their own. On the other hand, the LG unit has to be strong enough to provide enough level of services, which requires certain size of unit in terms of financial and human resources. These are two contradictory requirements.
- In order to give a good answer to the above contradictory question, the only solution is a multi-layer system from LGA to communities. In Japan, this multi-layer system is well functioning. But Tanzania also has a very well established system of District-Ward-Village-Kitongoji. This is very advantageous to nurture local autonomy and collaborative development endeavors between LGAs and communities. Furthermore, O&OD could be an

⁴ Moreover, Japan is not an exceptionally better-off country in this regard. To the contrary, Japan is the country that has the least number of public servants per population among the industrialized countries. It means U.K., France, Germany, Italy, etc. have even more government personnel!

excellent platform to consolidate that system and make it function.

3.2 Human Resource Management and Its Decentralization

As seen in the previous sections, Osaka Training had been rather warning the Tanzanian leaders during the initial few years to be careful about too rapid and drastic reform of D-by-D. However, as far as the human resource management aspect is concerned, the message became a bit different since it started observing the recentralization of the appointment authority of Council Directors and Head of Departments of LGAs as well as establishment of the Recruitment Secretariat for all the personnel of LGAs.

Japan did not go for D-by-D so quickly, keeping certain interventions of CG. In this sense, Japanese decentralization was not a perfect one for many years until 2000. However, as far as the human resource management is concerned, Japan made it completely decentralized from the very beginning of the reforms.

It was because human resource decentralization is the most fundamental basis for decentralization. In Japanese local government system, everything is decided and carried out within each LGA without any CG intervention right from recruitment, training, salary scale, transfer, promotion, till retirement. Japanese LGAs recruit new graduates every April according to their needs. After being recruited by one particular LGA, the employees will work for that LGA all through their life until retirement. There is no transfer from one LGA to the other in principle.

Furthermore, the Mayors are politicians elected by popular vote by the residents, and he/she will be the head of administrative branch of his/her LGA facing with the Council as the legislative branch. The technocrats will report to the Mayor and not to the Councilors, being represented and thus protected by the Mayor towards the Council and the Councilors.

In Osaka Training, the following three factors were emphasized as crucial elements to achieve the maximum human resource capacity of LGAs:

- 1) <u>Recruitment</u>
 - To recruit the best person apt for the organizational mission; and
- 2) <u>Training</u>

To train them towards achievement of the organizational mission (not for individual aims); and

3) Mobilization

To <u>ensure maximum mobilization (exploitation) of the full capacity of all the members</u> to achieve organizational goal

For those sakes, Japan considers it indispensable to decentralize the HR management so that each LGA can analyze its own situation, plan, recruit, train, assign, and mobilize its own personnel by itself. LGA staff should be someone who loves the area as well as the people there, works hard for the people, understands well about the situation of the area, and knows the people well and thus be able to work closely with the residents. These form the essence of decentralization. It is the experience of Japan that in those LGAs that are achieving remarkable success, there are officers who really work hard for the people and collaborate with the residents, and most of them were the ones who were born and brought up in the area and love their home town, together with the very strong leadership of the mayor who was also born there.

Another important element that makes Japanese LGAs stronger is their effective training of the staff. Japanese LGAs invest a lot on their staff through trainings as well as OJT which is given very strategically based on their institutional needs (not individual) and with longer perspective. It is possible in Japan because there is no transfer of staff to other LGAs and retention rate is so high, thus LGAs can invest

without fear of losing their staff after training them. To the contrary, in Tanzania there are frequent transfer of important officials from one LGA to the other and difficulties in retaining staff. Under such circumstances, the big challenge is how to ensure the training outcome to be maintained and led to improvement of LGA's performance, and how to make the LGAs to be serious about their staff capacity development despite such high possibilities of losing them after training. A question was posed if it is possible for Tanzanian LGAs to prepare and implement an effective staff capacity development strategy (plan) with longer perspective under such circumstances.

On the other hand, Osaka Training presented the issue of "team work" and mobilization of 120% capacity of the existing staff towards the same institutional goal. In Japan, there are several elements of HR management system that are carefully elaborated for that sake, such as:



- 1) deliberately developed salary scale with a view to avoiding corruption and making staff to work hard until retirement;
- 2) Japanese unique "late promotion system" to make everybody work so hard for years (exploit 120% of the capacity of everyone);
- Staff rotation system within the same LGA and accumulated evaluation system in order to make fair and objective evaluation to everyone as well as to identify capable staff who are apt to be promoted as Directors;
- 4) totally concentrated HR management function in Personnel Division to support 3) above;
- 5) Japanese unique working environment to facilitate "team work", supervision by bosses, and OJT by the supervisors, called "Big Roomism" (open office).

All that are explained in this section are provided in Japanese LGAs for the sake of ensuring the three crucial factors of HRM mentioned above, i.e. 1) Recruitment; 2) Training; and 3) Mobilization. Question was posed, under the current circumstances of Tanzanian LGAs, how to ensure the above-mentioned three elements.

3.3 Local Finance and Fiscal Decentralization

a) Financial Basis for LGAs

Figures (1) and (2) provide a symbolic overview of the situation of LGAs in Japan from financial viewpoint.

Figure (1) indicates how big the role played by Japanese LGAs is in terms of each sector service spending. Looking at the health sector, LGAs spend 94% of the total national expenditure while CG spends only 6%. In education, the proportion between LGAs and CG is 85% and 15%.

Considering the close correlations between amount of expenditure and volume of work, it can be analyzed that the Japanese LGAs are performing highly important part of the Government service delivery.

Oh the other hand, it is very important to note that such big amount of budget is <u>actually allocated</u> to LGAs to enable them to perform the heavy duties assigned (decentralized) to them.

What about Tanzania? In fact, looking at all the functions devolved to LGAs in Tanzania, the volume of works assigned to them is almost the same as those given to Japanese LGAs. Nevertheless, the budget allocated to LGAs was less than 3 trillion Shillings out of the total national budget of more than 11 trillion in 2011/12.



Another interesting comparison is about discretionary nature of the budget of LGAs. The Figure (2) shows composition of the revenue sources of Japanese LGAs. As can be confirmed there, 53% is from their own sources (local tax and fees/charges). Furthermore there is a <u>totally discretionary unconditional grant called "Local Allocation Tax Grant" (LAT Grant)</u>. LAT Grant is one <u>single block grant</u>. It is transferred from the Ministry of Finance into the <u>general account</u> of each LGA on the first day of <u>every quarter</u>. Calculating the amount of revenue from their own sources together with this LAT Grant, Japanese LGAs enjoy 75% of their budget at their discretion. This forms an important basis for Japanese LGAs to make their development plan realizable, counting on the sufficient and predictable budget every year.

Tanzanian participants reviewed the situation of their LGAs, and confirmed an unhealthy picture of the conditions that they were given, as shown in Figure (3).

Indeed it would have been still functional even in this manner if this 94% of grant were unconditional and discretionary. However in reality, it is composed of a number of different grants, many of which are conditional. Thus, even if the LGAs prepare a good development plans, it is so complicated to accommodate their priority projects because of this problem of conditional grants, which makes the development plans not easily realizable.

Furthermore, it should be remembered that the total budget allocated for all the LGAs is such a limited amount of 3 trillion Shillings out of 11 trillion. And that even this limited amount of just 3 trillion Shillings accounts for 94% of LGAs' total budget, which shows how limited their own source of revenue is.



Osaka Training urged the Tanzanian leaders that if D-by-D is to be promoted and much of the Government function is to be devolved to LGAs, corresponding amount of budget must be allocated, either in the form of own sources or unconditional discretionary grant⁵. If at all the appropriate budget allocation is not possible, then the functions should not be devolved to LGAs. Otherwise, it will be a logical consequence that the decentralized service delivery will be paralyzed and it is the citizens who will suffer eventually. As having been able to observe, in Japan when 85% of educational service delivery responsibility is decentralized, the corresponding amount of the budget is facilitated to LGAs. Otherwise it is not fair to LGAs and actually to the people.



b) Local Taxation for Sustainable Vigorousness of LGAs

In Japan, there is a clear philosophy behind the definition of local taxes allocated to each of the two layers of LGAs. (Prefectures as Higher LGAs and Municipalities as Lower LGAs⁶) Although Prefectures being HLGAs, are comparable to Tanzanian Districts in area-wise, as far as functions are concerned, it is the Municipalities that have similar responsibilities to Tanzanian HLGAs. In Japan, most of the basic service delivery is provided by the Municipalities since they are closer to the people, while Prefectures are mainly concerned with economic development since it requires a bit larger area to plan and implement strategically.

Based on the above-mentioned nature of the roles expected to the Municipalities, the following is the clear feature of the taxes allocated to the Municipalities:

As can be seen in Figure (4), Fixed Property Tax accounts for 45.3% of the total tax revenue, which is almost a half. Together with "Municipal Inhabitant Tax on Individuals" and "City Planning Tax", the share is getting more than 80% of their total tax revenue. Fixed Property Tax and City Planning Tax are imposed on the lands and buildings, which will not escape. As long as the lands and buildings are precisely registered, the tax revenue from those two sources is stably secured.

"Municipal Inhabitant Tax on Individuals" is like the poll tax (Development Levy⁷) abolished in Tanzanian. This tax source is also stable since all the residents are registered and LGAs know where they are. Now looking at the Tanzanian situation, most of the tax revenue sources are economic based ones, such as

⁵ In fact it is not recommended to promote a radical fiscal decentralization to give too much taxation authority to LGAs at this stage. Because it will make the LGAs in poor rural areas suffer since they don't have tax basis, though those strong LGAs in rich urban areas will enjoy a lot of revenue from their own sources. Therefore it is more realistic to make the grants unified in one single channel and totally unconditional and discretionary for the time being.

⁶ There are 47 Prefectures and about 1,742 Municipalities as of October 2012. Municipalities consist of <u>Cities, Towns and</u> <u>Villages</u>, which is a different classification from Tanzanian.

⁷ The only difference is that while the latter is imposed the same amount equally to everyone, the former is imposed according to the income level of the household. If there is no income or not up to a certain level of income, the family members of that household do not have to pay this tax.

Produce Cess (23%), Service Levy (18%), Guest House Levy (3%), License (10%) and Fees & Charges (17%), which fluctuates in accordance with the economic situation of the area, while the Property Tax accounts for only 8%.

Osaka Training urged the Tanzanian leaders that if LGAs are expected to provide needed services in a constant and stable manner, it is fundamental to develop a stable taxation system. From her proper experience, Japan believes that without putting emphasis on those stable tax sources like Property Tax and Pole Tax, it is not possible to expect much for LGAs to perform. In this context, it is critical to establish an accurate land register system as well as the resident registration, which will help a lot for the entire Country not only to have more revenue, but also for many other purposes.

In this regard, it is worth mentioning that there are some very interesting and encouraging practices of this kind in Tanzania already as the case of Mtwara Mikindani and Kinondoni Municipals.

3.4 Local Economic Development – Japan's Interesting Experience of "One Village One Product (OVOP)" Movement

Local economic development has been always major concern of the Council Directors of Tanzania. In this regard, there is a World famous experience in Japan called "One Village One Product (OVOP)" Movement, originated in Oita Prefecture that used to be one of the poorest Prefectures in Japan at that time. This experience could be very relevant and useful to Tanzanian rural development if it is properly interpreted and applied to Tanzanian context.

(a) What is OVOP?

OVOP is a collection of local development initiatives promoted by leaders of the respective communities in Oita Prefecture, who love their community and were worried about the poverty there. Although such individual practices had been existing here and there in the Prefecture since 1960's, OVOP movement itself was officially initiated in 1979 by Dr. Morihiko HIRAMATSU, the then Governor⁸ of the Prefecture by identifying such cases and promoting them.

Talking about Dr. Hiramatsu, he had been a highly promised elite official of the then Ministry of International Trade and Industry (MITI) which was the strongest Central Government Ministry, but decided to go back to his home prefecture since he was worried about the situation of the prefecture that was remaining one of the poorest in Japan at that time. When he won the election and assumed office of the Governor, the first thing that he did was to visit all the villages in the Prefecture. During these visits, he found various spontaneous but precious endeavors for development in the villages. He was moved at the fact that there were such good practices of local development spontaneously pursued by the villagers with passionate local leaders, and that those cases had been unknown to the government. He appreciated their efforts, and encouraged them. For those villagers many of whom had never even been out of their own village, it was really an encouragement that such a big man visited their village and admired what they had been doing. They had never imagined that what they were doing was something special and valuable. Since his visit, such endeavors of the villagers became more and more enthusiastic being proud of themselves.

⁸ The post of Governor of the Prefecture is the leading post of Japanese Higher LGAs equivalent to the Municipal Mayors for Lower LGAs (See "3.2. Human Resource Management and Its Decentralization" for the Mayors.)

In his part, Dr. Hiramatsu thought it an important role of the Prefectural Government to encourage and promote this kind of precious initiatives of the villagers to improve their life by themselves, and widely share such good practices with all the other village leaders in the Prefecture.

The core feature of each case of OVOP is to produce some unique products (including tourism), and achieve local development, using existing available resources in the village. However, even more important element in this movement was that: through the concrete experience of endeavors of their small local economic development activities, the villagers consolidated their self-organizing capability; were empowered; and strengthened the local autonomy in the village. The important fact here is that experiencing success and failure (and overcoming it), the community not only achieved the economic success but also got empowered and became stronger through the process. It is fundamental to note this fact in understanding the OVOP Movement. Because to get one time success in certain business is not all that difficult with strong injection from outside, but when they encounter some problem later, they will not be able to overcome it if they have not been empowered through the past process to solve problems by themselves.

In this sense, it is very interesting to observe that in most of the cases of OVOP in Oita, they went through the following process:

- Before OVOP, the villagers were poverty stricken, given up hope to change, envious and jealous even among themselves, and thus no collaboration among them to improve their life together. However, with the experience of OVOP, they started recognizing "Yes, we can if we want!" This was a remarkable process of mind-set change.
- Based on the above-mentioned mind-set change, they accumulated experience of collaboration within the community, sharing the common challenges and experience of overcoming them together. This process made them to be organized better and better.
- Through the same process, they also strengthened the relationship with outside supportive organizations including LGA and NGOs.
- Together with all the above-mentioned empowerment, the community achieved a tangible outcome of economic development.

(b) What did Dr. Hiramatsu do as the Prefectural Governor?

First and foremost, it should be clearly noted that OVOP was in no sense a "Top-down" programme that Dr. Hiramatsu created and told people to do something. Unfortunately, most of the developing countries that were interested in OVOP and tried to introduce it in their countries misunderstood this point. They just looked at the economic success of OVOP and promoted as a national policy giving instruction with top-down approach to each village to produce something that can be sold nationally or internationally. To the contrary, what Dr. Hiramatsu did in Oita Prefecture was, first of all, to visit all the villages, identified the already existing precious endeavors, admired and encouraged them.

Secondly, he informed the other villages and their leaders of those good practices so that they get inspired and start thinking of their own development using available resources in their respective areas, instead of complaining that they have nothing in their village and giving up hope. Thirdly, when he identified good products in some villages, he helped them to get market in and outside the Prefecture. Using his know-how, experience and connection developed since he had worked as a high rank official of Ministry of International Trade and Industry, he promoted these products nationwide. Fourthly, he promoted exchange of experience among leaders of respective villages so that they can learn from and

get stimulated each other (horizontal learning, not vertical). He established "*Toyonokuni*⁹ Human Resource Development School¹⁰" for the village young leaders to get together and learn from each other. This stimulated the leaders so much which led to emergence of a lot more of OVOP cases.

As can be seen above, OVOP in its essence was a movement composed of various spontaneous local development attempts which were identified by the LGA, appreciated and encouraged. And the LGA played a role of "facilitator" and not "implementer" or "instructor". What Dr. Hiramatus did was not to tell the villagers what to do and lead the movement, but respected their initiatives and ownership, and accompanied their efforts. Osaka Training emphasized this aspect of OVOP, and its close relevance to the situation of Tanzania, believing that there must be such spontaneous development endeavors in Tanzanian villages with good leaders who are concerned about their home. It could be highly effective for Tanzania to encourage such efforts and give them opportunities of horizontal learning. Osaka Training urged the Tanzanian leaders that they should not think there is nothing in their villages. There must be good practices but still unknown to them. They should start trying to identify such cases, encourage, and share with others. It would be much more effective than learning from outside or from textbooks. It is also from this viewpoint that compilation of this Handbook itself was decided.

3.5 Other Issues

Due to space limitation there are more issues that are important and relevant to Tanzania which could not be covered. These are the experience of Minamata ("Minamata Disease" and recovery from that tragedy); participatory local development planning; urban planning; land use and land adjustment, Japan's experience of economic development and roles played by LGAs, etc. Concerning the experience of Minamata, Osaka Training is putting a lot of emphasis on its importance, and believes that the developing countries have a lot to learn from there.

4.0 FURTHER DEVELOPMENT AFTER OSAKA TRAINING THAT LED TO PUBLICATION OF THIS HANDBOOK

As described in Section 1 above, Osaka Training was conducted exclusively for Tanzania during the first five years (2002 – 2007), and continued for another six years extending its scope to three other countries (2008 – 2012). The most remarkable incident during these eleven years was the establishment of its own alumni; TOA. It is a World exceptional and exemplar case to have special alumni for one particular training course and that covering all such important leading stakeholders of the reform as the RASs and the Council Directors together with high rank officials of PO-RALG. It was also a pleasant surprise even for JICA that is offering thousands of training courses all over the country.

Moreover, TOA started a series of seminars and workshops such as Post Osaka Trainings and Post Regional Workshops to share experience of the member LGAs. These opportunities, not only serve for experience sharing among the member LGAs, but have become a rare arena to discuss and exchange opinions about the reality of D-by-D in the field and challenges of the reform implementation that they are facing. So far, there is no organization of this kind in Tanzania, composed of the top technocrats of LGAs and RSs. Nonetheless ALAT exists, but the main actors in this association are the Council Chairpersons who are politicians and not bureaucrats. In this sense, TOA has an interesting possibility to serve as a national association of all the top management of LGAs and RSs who are the expert practitioners of D-by-D, struggling in the reform implementation in the frontline every day. Their

⁹ "Toyonokuni" is a traditional name of the area of Oita Prefecture

¹⁰ It is called "school" but there is no physical facility. It is a sort of workshop type training programme for the leaders to get together.

collective suggestions and recommendations could be very useful elements for more successful reform implementation.

Tanzania has already accumulated more than one decade of experience in practicing D-by-D in each LGA. There must be a number of interesting initiatives and useful experiences in many LGAs all over the Country that are worth sharing with others. Japan believes that this kind of horizontal learning from such cases would be much more effective than vertical learning from outside, based on her own experience such as OVOP Movement described in 3.4 above. This Handbook was compiled with the above-mentioned background and considerations. It is a hope of TOA and Osaka Training that it will contribute to improvement of the performance of many LGAs, stimulating each other, and further good practices coming out, which leads to eventual success of D-by-D in this Country.

Finally, it is worth mentioning that, based on all remarkable outcomes of Osaka Training in Tanzania described in this chapter, JICA decided to continue Osaka Training for five more years (2013 -2017) concentrating again on Tanzania with a special view to supporting TOA activities and its institutional building. Thus, more and more Tanzanian reform leaders have been benefitting from Osaka Training to contribute to better implementation of D-by-D Reform of the Country.

Chapter Two

Community Self-Help Efforts for Improved Services

Self-help approach is a new paradigm in the field of rural development, whose main goal is rural development. Specific objectives of the approach are to increase the well-being of the poor people, and provide infrastructural facilities. It is a voluntary and self-managed group of people belonging to similar socio-economic characteristics, who come together to initiate ideas that will promote sustainable development. The self-help approach of rural development in the form of undertaking economic programmes provides employment, infrastructure that a community can provide for themselves, acquainted with skills and occupational diversification.

Self-help efforts refer to attempts by the communities to address challenges (felt-needs) facing them socially and economically without waiting for major interventions from the Government. Self-help efforts involve determination to solve community problems through community reorganization, participation and implementation. In all these cases the community itself feels the need, plans on how to meet the need, searches for local resources required to achieve the need, organizes itself into implementation groups and implements the project.

In several occasions Self-help refers to the formation of local voluntary association, in which members share common interests, organize and coordinate programmes with the sole aim of improving the socio economic wellbeing of their entire community. Studies reveal that groups in local communities over years have successfully organized themselves to construct roads, health centers, bridges and houses, cultivate farms, offer scholarships, and establish industrial/commercial institutions among others. Evidence of these has led to the multiplication and expansion of both membership and self-help activities in rural communities.

In Tanzania, self-help efforts and community participation have been common due to historical social and economic ideology of self-reliance. Since independence communities in their villages were urged to live in communities and practice cooperative methods towards solving their own problems. At the peak of this ideology during the 1960s and 1970s and especially after the Arusha Declaration, communities designed several projects and implemented them in terms of construction of schools and dispensaries, digging of water wells and charco dams, paving roads and practicing cooperative agriculture.

Although these practices declined during the 1990s towards the new millennium due to claims by the government that it can provide all services, there are communities that have recently practiced intensive self-help efforts in construction of roads, dispensaries, primary school classrooms and government buildings; all aimed at improving service delivery. In this chapter, five best practices are presented from Ludewa DC, Mbulu TC, Msalala DC, Dodoma CC and Mpwapwa DC.

Ludewa DC best practice is about Self Help Efforts in Construction of Potable Water Infrastructure in Itundu Village which experienced severe shortages of water. Villagers had to walk long distances up to 5km to water points making women spend up to 8 hours per day fetching water. The main objective of the initiative was to increase availability of water in Itundu Village and establish new sources of water in order to construct gravity water infrastructure. Strategies used to achieve the objectives include awareness creation, establishment of contributions, formation of water committee, construction of water intake, construction of main line, rehabilitation of existing distribution points and obtaining of water use permit and certificate of quality. The initiative has witnessed completed and functioning water infrastructure, improved water services, women empowerment, increased water supply in households, elimination of water borne diseases and emergence of new income generating activities. The Committee continues to encourage people to connect water to their residences for increasing revenue. Itundu village success is based on transparency and strong leadership of the Village water committee. The project became very successful as it was a felt need of the Itundu Village community.

Mbulu TC best practice elaborates on Nambis Ward Self Help Efforts in Construction of Hhaynu Secondary School. The Council used to experience congestion of pupils at Murray Secondary School due high performance from all 4 Primary Schools in the catchment area. Nambis Ward community aimed at reducing pupils' congestion from 100 to 40 per stream at Murray Secondary School by establishing Hhaynu Secondary School. The strategies to attain this target included approval of proposals, selection of implementation committee, land acquisition, community sensitization, request for drawings and guidelines, cash contributions, establishment of bylaws and mobilizing contributions from various stakeholders. The Nambis Ward community has realized availability of school infrastructure, a functioning Hhaynu Secondary School, increased enrolments and a motivated and united community. For sustainability purposes the community has planned to continue with construction projects and plant trees to make the school green and beautiful. The underlying reason for success of this project is transparency and accountability.

Msalala DC initiative shows Community Self-Help Efforts in Establishment of Segese Secondary School as Segese Ward had only one secondary school called Mwalimu Nyerere Secondary School which was overcrowded. Msalala DC aimed at improving the quality of education through establishing a new secondary school to provide wider chance for pupils to access quality education. The strategies adopted included sensitization and awareness creation, formulation of construction committee, resources mobilization; purchase of land for construction of school infrastructure, solicitation of funds and securing technical support from the Council. Segese Ward has realized improved teaching and learning environment, increased pupils' enrollment and improved collaboration between stakeholders. The Council continues to set development budget annually while increasing the number of staff and education equipment for the school. The secret behind this success rests on good relationship between Msalala DC and Segese Ward leadership.

The City Council of Dodoma best practice narrates on Chang'ombe Business Community Initiative in Market Construction. Chang'ombe Ward is the most populated Ward in the Council which had many informal markets established around residential areas. The main objective of this initiative was to establish a modern market within the Ward with sufficient facilities to accommodate all informal markets. To achieve this, the Council engaged in organizing decision meetings, acquisition of land at Chang'ombe D, formulation of joint supervision committee, sensitization and awareness creation, preparation of market drawings and actual construction of market premises. Currently, Chang'ombe Ward has a newly established market which is a unique model of joint efforts of community and Government in solving prevailing problems. The market structure accommodates 700 business

individuals running shops and 155 stalls for fruit and vegetable vendors while creating employment opportunities and improved living standards. The Council is focused to conducting periodic arrangements for maintenance of the market infrastructure. The secret of success for this initiative is strong and committed leadership of the Council, Msamaria Street Chairperson and Chang'ombe WEO.

Mpwapwa DC best practice shows Self Help Efforts in Establishment of Matuli Satellite School. Before 2001, Matuli village faced challenges in provision of primary education. Pupils had to attend school at Manghaliza Primary School located 5km away from the village. To achieve the objectives the objective Matuli Village had to engage in community sensitization and motivation, acquisition of land, formation of construction committee, establishment of contributions and actual construction of school infrastructure. Currently, school infrastructure is in place as the Community and the Council has managed to construct six classrooms with desks, four pit latrines and one teacher's house. For sustainability purposes, there is continuous community sensitization and awareness creation to ensure people participate in maintaining the school. The initiative was successful as it was a felt need of the Community; the community realized their vulnerability as a peripheral sub village so they had strong desire and commitment to complete the project.

LUDEWA DISTRICT COUNCIL



SELF HELP EFFORTS IN CONSTRUCTION OF POTABLE WATER INFRASTRUCTURE



Experience of Itundu Village

1.0 INTRODUCTION

Ludewa DC is one of the 6 Councils in Njombe Region found between Latitude 9°30 and 10°30 South and Longitude 34°35 and 35°10 East. It borders Njombe DC to the North, Makete DC to the North West, Songea DC to the East, Mbinga and Nyasa DCs to the South and Lake Nyasa to the West. Ludewa DC has a total area of 8,397km²; 2,072km² are covered by water and 6,325km² are dryland with mountains, forests and valleys. Area suitable for agriculture is 4,650km² out of which 3,444km² are cultivated. According to 2012 Census, the Council has a population of 133,218; male (63,442) and female (69,776) with annual growth rate of 0.8%. The Council has 5 Divisions, 26 Wards, 77 Villages and 352 Vitongoji with 30,164 households.

The major ethnic groups in the Council are Pangwa, Kisi and Manda. Pangwa people are found in the Northern part of the Council engaging in agriculture and animal husbandry while Manda and Kisi tribes are found along Nyasa lakeshores engaging in fishing and livestock keeping as their main economic activities. A significant part of the population depends on streams as major source of water for domestic use.

2.0 PROBLEM

Water is the most important resource to support livelihoods. Lack of water may lead to stagnation of social and economic wellbeing of people. During the 1980's DANIDA in collaboration with the community constructed a water scheme for Itundu Village. The DANIDA project was meant to serve the population of about 2,000 in Itundu Village. Between 1990 and 2010 the population in the village increased to 4,471 with 1,135 households while village water infrastructure remained the same. As a result, villagers started to experience severe shortages of water.

Shortage of water created several secondary problems in Itundu Village. Villagers had to walk long distances up to 5km to water points making women spend up to 8 hours per day fetching water. Women had to wake up early in the morning (04:00AM) everyday; a practice that prevented them from engaging in economic activities. Similarly, domestic violence cases were experienced due to beliefs by husbands that women spent more time fetching water than expected. The village office received 6 cases associated with the problem of water. Pupils, on the other side, spent some school time fetching water before attending schools. Some households incurred high costs in fetching water using motorcycles (Bodaboda) in which TSZ 2,000 were paid per bucket. Some households depended on water from unsafe streams and boreholes which caused prevalence of water borne diseases such as typhoid and cholera. This was reported by Dr. Bosco Nyongeza, medical officer in charge of the Mlangali Health Centre within Itundu Village.

3.0 OBJECTIVE

Access to potable water is crucial for human survival and is essential for socioeconomic development, poverty and health problems. The national water policy of 2002 aims at ensuring that beneficiaries participate fully in all stages of water resource development. The policy recognizes the fundamental but intricate linkages between water and socioeconomic development, including environmental requirements. The emphasis in water policy is that each household in Tanzania should access potable water within less than one Kilometer during the dry season while the National Development Vision 2025 emphasized on universal access to potable water within 400 meters.

The main objective of the initiative was to increase availability of water in Itundu Village. Specifically the initiative intended to;

(i) Establish new sources of water and construct gravity water infrastructure.

- (ii) Increase water supply to fulfill the needs of population by constructing more distribution points.
- (iii) Reduce time spent in fetching water from 6 hours to less than 15 minutes.
- (iv) Reduce distance covered to water points from 5km to 400m as per National Water Policy.
- (v) Eliminate water borne diseases.

4.0 IMPLEMENTATION STRATEGIES

In 2016 the Village Council realized that the problem of shortage of water in the village would worsen and persist if immediate measures were not sought and implemented. The Village Council meeting was held to discuss the matter and make decision. Through this meeting; it was agreed that the problem be shared with all villagers. The Village Chairperson called for a Village Assembly to allow for rich discussions, collective decision making and participatory implementation. In the Village Assembly, community members realized the severity of the problem and established a fact that unless they take immediate actions, the problem of water will always remain and hassle the villagers. The meeting also deliberated on the source of water and decided on mechanisms of engaging community members, business people and the diaspora in project implementation. To realize the objectives set in this initiative the following strategies were implemented.

Awareness creation; to create adequate understanding of the problem and mobilize all villagers awareness sessions were prepared and implemented through meetings Kitongoji level. The Kitongoji Chairpersons in collaboration with Village Council members informed community members on the need for safe and clean water in each Kitongoji within the Village. There are 5 Vitongoji in Itundu Village. The awareness meetings aimed at sensitizing communities to realize the problem and mobilize readiness for participation in resolving the problem. The Villagers agreed to collaborate with Village Council in the whole process of project implementation. Minutes of each meeting were prepared and submitted to the District Council Director and the District Commissioner's Office.

Establishing contributions; The Village Council organized a Village Assembly in order to discuss process of implementing construction works for water infrastructure. This assembly decided that all villagers contribute cash amounting to TZS 50,000 per person while the retired officers, government employees and business people were requested to contribute TZS 80,000. In order to stimulate people to contribute; the Village Council Members and prominent people in the village decided to contribute in full on the same day the resolution was passed. The meeting also endorsed a resolution to engage diaspora to contribute to development activities taking place at their home land. A list of business people, diaspora and households was established and communication with regards to cash and material contributions was made. In order to ensure compliance, a grace period of six months was provided for each stakeholder to be able to pay the amount required in installments. Since it was a felt need of the community, 719 out of 725 households complied and contributed on time while the rest 6 households were forced to pay.

Establishment of water committee; a committee of 10 members was established (2 members selected from each Kitongoji). The committee was tasked with duties related to making follow ups of contributions, establishing costs of the project and determining water source where the intake was to be constructed. The committee identified a water source in Salale in Igongwi mountain ranges. The source was selected because of its potential to support flow of water (Gravity water) to Itundu Village.

Purchase of land for construction of intake at Msimbwe Village; since water source was in another village (Msimbwe Village), the Itundu Village Council had to communicate with Msimbwe Village Council to establish collaboration on how to share water resource. It was agreed that Itundu Village Council

purchase land for construction of water infrastructure (Intake) in Salale within Igongwi Mountain ranges. The land was purchased at a cost of TZS 1,000,000 which was paid in installments.

Construction of the intake; the construction of intake was done by the local artisans (*fundis*) who had knowledge and experience in construction of water infrastructure. At this point there was no technical assistance from the Council. People organized themselves in construction work by collecting building material such as stones, sand and gravel. The industrial materials such as cement and wire mesh were purchased through money collected by the water project committee.



Construction work on progress

Purchase of water pipes; the construction committee surveyed prices and quality of pipes in Njombe town and in Dar es Salaam City. It was decided that pipes be purchased in Dar es Salaam because it was cheaper compared to prices in Njombe town. A business man, Mr. Mendrad Chapemba who owns hauling trucks volunteered and paid for transportation of pipes from Dar es Salaam to Itundu Village. This shows how every stakeholder was committed to the initiative and valued implementation of the project for Itundu village and all its Vitongoji.

Construction of main line and rehabilitation of existing distribution points; Villagers organized themselves at Kitongoji level to participate in excavation of a 9km trench from the water intake to the village. The exercise of digging trenches and laying down pipes from the intake to the Village (9km long) was implemented by the all villagers as agreed in decision making assemblies and Kitongoji meetings. Vitongoji Chairpersons were tasked with the role of organizing and supervising Vitongoji residents to fully participate in excavation and pipe laying activities. This implementation included construction of new water points and rehabilitation of existing distribution points which were constructed during DANIDA project.

Seeking government assistance; the Village Council deliberated on developing a technical proposal to request the government to assist the completion of Itundu water project. Fortunately, during that time, there was a visit of the Deputy Minister for water Eng. Kamwela which provided an opportunity for the village to present the proposal and request the minister for assistance. The Minister directed the District Council to allocate budget to support the Community initiative. The Council provided TZS 50,000,000 to support completion of the water project.

Obtaining water use permit and certificate of quality; the Village Council requested water use permit from Lake Nyasa Basin Authority in which the Village Council consulted the authority, explained the need for using water from Igongwi Mountain ranges and acquiring permit to use water as required by the law. The Village Council secured this water use permit and pays TZS 100,000 every year to ensure sustainability of water availability and avoid confrontations with Lake Nyasa Basin Authority. Another important step was to test the quality of water. This required a procedure to conduct laboratory tests in which a sample of water was taken to National Laboratory for a test on its quality for human consumption. The responsible authority, the Chief Chemist issued a certificate of quality of water for use by Itundu Villagers.

5.0 RESOURCES

Ludewa DC and Itundu villagers used various resources to make implementation effective. Human resources deployed in various modalities include members of Village Council who initiated and championed the initiative, Village Chairperson Mr.Maiko Ang'ala who encouraged the community to participate fully in project implementation and water technician Mr. Athanas Munge from the Council who assisted in designing and construction of distribution points. Local *fundis* as well contribute significantly in construction of the water intake and distribution points. The villagers used physical resources such as stones, sand and land.

All Financial Resources used to complete the Itundu water project amounted to a total of TZS 277,550,000/= and originated from various stakeholders as shown in table 1 below.

SN	ACTIVITIES	AMOUNT (TZS)	FUND SOURCE
1	Survey and Design	2, 384,800	Community
2	Purchasing pvc pipes and fittings	50,000,000/=	Council/Ministry of water
3	Purchasing materials (pvc pipes and fittings)	165,000,000/=	Community
4	Intake construction	12,000,000/=	Community
5	Main line construction (Excavation of trench) 9km.	24,000,000/=	Community/in kind
6	Skilled labor and unskilled labor for pipes fittings, laving and backfilling.	2,615,200/=	Community
7	Rehabilitation of existing domestic points	2,000,000/=	Community
8	Transportation of industrial materials	9,000,000/=	Community
9	Collection of local materials	11,000,000/=	Community
	TOTAL	277,550,000/=	

Table1. Financial Resources

6.0 RESULTS

Ludewa DC and Itundu Village Community aimed at improving access to adequate and safe water within the village and vitongoji, improve sanitation and hygiene services for the community and obtain sufficient water for domestic purposes. Clean water in close proximity frees up time for more productive pursuits that has implications for broader economic as well as social development. Improving water and sanitation services and hygiene practices reduces morbidity rates related to water borne diseases hence strengthening individual productivity by more engagement in economic activities. Availability of adequate water supply of good quality reduces time spent in fetching water, increases health standards and ensures favorable environment for increased children's school attendance. Ludewa DC and Itundu Village community achieved several results from implementation of water project. The achievements are described below.

Completed and functioning water infrastructure; the Village has water infrastructure including the intake and 127 distribution points constructed in main centers and vitongoji. In addition, all service

institutions such as Health Center and primary schools have distribution points which provide promptly water needed for use by people and cleanliness.



Water intake at Igongwi Mountain ranges

Improved water services; as per emphasis by National Development Vision 2025 on universal access to safe water that residents must access water within 400m, residents in Itundu village are now accessing water within a distance of 400m compared to 5km before implementation of this noble project. The project has saved a lot of time as now Itundu villagers use 15 minutes to reach distribution points compared to 6 hours that were spent.

Women empowerment; as a result of the project, women have gained sufficient time to engage in economic activities which has improved the incomes and status. The water initiative has eliminated cases of domestic violence that occurred due to problem of water.

Other results include;

- (i) Increased water supply in households in which a total of 127 distribution points have been installed (76 in private households and 51 for public use).
- (ii) Elimination of water borne diseases. This is a result of availability of quality water certified by National Chief Chemist.
- (iii) Increased and new income generating activities such as car wash and cultivation of vegetables.



A distribution point

7.0 SUSTAINABILITY STRATEGIES

Itundu Village under supervision of Ludewa DC water department has established a very strong Village Water Committee which ensures that every household fetching water at distribution point pays TZS 4,000/=per year while Households which have installed water pipes pay TZS 4,000/= per month. The village has collected TZS 500,000/= as payments of water bills and the collections are used for paying

Local *fundis* and procuring pipes and fittings for repair and expansion of the project. The Committee continues to encourage people to connect water to their residences for increasing revenue. Costs for new connections are TZS 15,000 as fees and payment of 4,000 as a monthly bill. Individuals purchase the pipes and all items necessary for water connection. These strategies are intended to sustain and expand the project in the future.

8.0 SECRET OF SUCCESS

Itundu village success is based on transparency and strong leadership of the village water committee. During implementation, the committee produced income and expenditure reports to the community to show trends of collections and usage. Other secrets include village members' solidarity and commitment to the project, community sensitization on the importance of the project made by the village leaders and availability of water sources nearby the village. The project became very successful as it was a felt need of the Itundu Village community.

MBULU TOWN COUNCIL



NAMBIS WARD SELF HELP EFFORTS IN CONSTRUCTION OF HHAYNU SECONDARY SCHOOL



Experience of Nambis Ward

1.0 INTRODUCTION

Mbulu Town Council is one of 7 Councils of Manyara Region which was established in 25th September 2015. Mbulu TC is found in North Eastern Tanzania bordering Karatu DC to the North and East, Babati DC to the South and Mbulu DC to the West. The Council has an area of 1891km², with population of 146,527 in which 74,112 are male and 72,415 are female with population growth rate of 3.8%. The Council has 3 Divisions, 17 Wards, 34 Villages, 153 Vitongoji and 58 Mitaa.

Mbulu TC is predominately dependent on agrarian economy. The main occupation of the inhabitants is farming and livestock keeping. About 85% of the population engage in agriculture and livestock keeping. Apart from agriculture and livestock activities inhabitants also engage in activities such as beekeeping, fishing, trading and operation of small-scale industries.

Mbulu TC has 57 primary schools (54 government and 3 private). These primary schools are the sources of pupils supposed to be enrolled into form one in 14 Secondary Schools including Hhaynu. Before 2018 there were only 13 Secondary Schools to accommodate all pupils from all 54 primary schools. Currently the Council has 54 Primary Schools and 14 Secondary Schools.

2.0 PROBLEM

Before 2018, pupils from Nambis Ward were enrolled at Murray Secondary school in Murray Ward. The National directive is for each Ward to have its own secondary school. The situation of two wards having one secondary school led to several problems.

- (i) 200 pupils from Nambis Ward who enrolled in Murray Secondary School from 1997 to 2018 were compelled to walk long distances of up to 8km daily to school.
- (ii) Geographical location and nature of land scape forced pupils to remain at home during rainy season. Almost 35 pupils were affected by seasonal floods due to lack of bridges over various rivers and streams.
- (iii) Congestion of pupils at Murray Secondary School due high performance (100%) from all 4 Primary Schools in the catchment area. All standard 7 pupils were selected and enrolled at Murray Secondary School; as a result the school class ratio which is 1:40 was seriously surpassed; which mean 1 classroom was forced to accommodate about 80-100 pupils which affects learning and teaching environment culminating into poor academic performance.



Murray Secondary School infrastructure

3.0 OBJECTIVE

Secondary Education in Tanzania is designed to consolidate and broaden the scope of baseline ideas, knowledge, skills and principles acquired and developed at the primary education level. It is recommended by the government so as to enhance further development and appreciation of national unity, identity and ethic, personal integrity, respect for and readiness to work, human rights, cultural and moral values, customs, traditions and civic responsibilities and obligations.

Secondary education promotes the development of competency in linguistic ability and effective use of communication skills in Kiswahili and in at least one foreign language, provides opportunities for the acquisition of knowledge, skills, attitudes and understanding in prescribed or selected fields of study, prepares students for tertiary and higher education, vocational, technical and professional training, inculcates a sense and ability for self-study, self-confidence and self- advancement in new frontiers of science and technology, academic and occupational knowledge, and skills and prepares the pupil to join the world of work. This being the case anyone who loses the opportunity to attend secondary education which is substantially subsidized by the Government, eliminates most chances of personal progress. For these reasons the Nambis community decided to ensure that their children get quality education closer to their villages.

In the end of 2012, the Nambis community made a stern decision to construct own secondary school. This was intended to improve teaching and learning environment by constructing Hhaynu Secondary School. The specific objectives were;

- (i) To reduce pupils congestion from 100 to 40 per stream at Murray Secondary School by 2018.
- (ii) To increase pupils enrolment at Hhaynu Secondary School to 100% capacity.
- (iii) To reduce walking distance from 8km to 4km daily to school.

4.0 IMPLEMENTATION STRATEGIES

Decision making; in 2012 the idea from Nambis Community to build their own Secondary School was discussed in Council Steering Committees, in which the debate was to allocate a proper place for the School. For that matter the Council recommended that the two villages in Nambis Ward build own secondary school. This was initiated by the Mbulu DC as Mbulu TC was not established yet. The two villages that were severely affected by pupils walking 8kms to Murray Secondary School were Kwermusl and Amowa. The proposal was discussed in a joint meeting of Amowa and Kwermusl Villages Chairpersons and Village Council members and agreed to take the problem and make it as agenda in the next Village Council meetings in respective villages.

Approval and selection of implementation committee; the Village Council meetings discussed and agreed to construct a new school within their area. To achieve this, School Construction Committee was established comprising 14 members from Kwermusl Village and 13 members from Amowa Village. Among members of the committee are retired officers with knowledge and varied experiences in project management and implementation. The Committee was tasked with activities of establishing the costs of building a secondary school, identifying a suitable area for building the school, land acquisition procedure and sensitizing the community on contributions.



Committee vice Chairperson and Members

Land acquisition; the construction committee negotiated with local land owners and made land exchange. The school therefore is constructed on the land which was obtained by exchanging land initially owned by a number of families who were compensated with Village land situated at Dawi area in Kwermusl village. This arrangement was necessary because the site was suitable for school construction both by its location and geographical terrain.

Community sensitization; the community was sensitized through meetings and discussions. The Villagers of Amowa and Kwermusl Villages jointly held a meeting to discuss ways and technicalities of making contributions to achieve the goal according to the committee action plan for project implementation. In addition, influential persons like MP and DED were invited in a Joint Village Assembly to sensitize the community at large.

Request for drawings and guidelines; in September 2014, Amowa and Kwermusl villages invited Council officers to provide school construction specifications according to the Ministry of Education, Science and Technology guidelines. Officers invited included the District Education Officer for provision of maps and Sector drawings and the District Engineer who is responsible for setting out foundation, checking dimensions on ground in compliance with drawings and specifications, excavation of foundation and provision of schedule for monitoring and supervision. The Council Chairperson and District Executive Director were also invited into the construction site to spearhead mobilization efforts.

Cash contribution and construction stages; it was decided that each household contribute TZS 382,000 in 5 phases. In phase I (in 2014-2015) TZS 150,000 for classrooms building, toilets and teachers houses, phase II TZS 32,000 for 3 laboratory rooms, phase III TZS 60,000 for administration block, phase IV, TZS 40,000 for completion of 2 teachers houses and phase V TZS 100,000.00 for building 2 classrooms and 3 teachers houses.

Participation in kind; participation in making bricks, collecting stones, aggregates and sand was designed in such a way that each household was required to prepare 300 bricks at the building site. The rest local materials were collected in terms of Vitongoji and transported to the building site. These strategies reduced the usage of cash to purchase local materials.

Establishment of bylaw; the joint village meeting laid down bylaw that was used to deal with defaulters of development initiatives. Fortunately the bylaw was not used as all citizens were sensitized to the point that there were no defaulters. This indicates the school was a felt need of the community.

Establishing phases of implementation; phase I (2014-2015) involved construction of classrooms, toilets and teachers houses. Phase II involved construction of 3 laboratory rooms (to lintel level) (2014-2015), phase III construction of the administration block to completion stage (2017), phase IV completion of 2 Teachers houses (2017-2018), roofing of 1 Teachers house (2019), roofing of three laboratory rooms (2018). Phase V covered construction of 2 classrooms to completion stage (2018-2019), construction of 2 teachers houses to completion stage (2018-2019), construction of 1 teachers house to lintel level (2019). All school buildings are constructed in compliance with the standard and specifications as prescribed by the Ministry of Education. Designs and BOQs were prepared by Council Engineer.

Fund raising; in 2015 and after the establishment of Mbulu TC, the role of monitoring and supervision of the project was undertaken by the Town Council management in collaboration with Hhyanu Secondary school construction committee. The Town Director organized fund raising event to mobilize funds for roofing the three laboratory rooms. A total of TZS 5,000,000.00 was collected.
Mobilizing contributions from various stakeholders; the school construction committee requested stakeholders to make contributions to support the parents' initiative. Several stakeholders adopted the request. The Mbulu Town MP contributed 100 iron sheets for roofing teacher's houses, a friend of Mbulu TC one Mrs Teun Van Daig contributed 1000 Euro for making 40 desks and chairs and 2000 Euro for purchasing of books.

Registration of the school; in 2017 the Council started procedures of registering the Hhaynu Secondary School. On 17th December 2017 the school was registered. Immediately after registration the Council allocated 4 teachers to start running the school and 93 form 1 pupils were enrolled in January 2018.

5.0 RESOURCES

In collaboration with Mbulu TC and stakeholders, the communities of Amowa and Kwermusl Villages jointly used significant amounts of financial and human resources. Table 1 below summarises the resources in terms cash, labour and social capital.

No	Source of Fund	Amount	Percentage
1.	Community (cash)	256,300,000.00	61.9
2.	Physical labour (in kind)	101,190,000.00	24.4
3.	Social Capital (Timber from family tree plantations)	56,000,000.00	13.5
	TOTAL	413,490,000.00	100

Table1; Resources

6.0 RESULTS

In 2012 Nambis Ward community made a stern decision to construct own Secondary school intended to improve teaching and learning environment by establishing Hhaynu Secondary School. In September 2014 construction of school buildings was initiated. Below are the results that were documented in February 2019.

Availability of school infrastructure; by the end of 2017 the Villagers of Amowa and Kwermusl had completed 4 Classrooms, an administrative block, 2 teachers houses, girls and boys latrines with 20 stances, and Staff latrine. 3 laboratory rooms and 1 Teachers house were in different completion stages.



Four completed classrooms



Boys' latrines (10 stances)

Girls' latrines (10 stances)

Functioning Hhaynu Secondary School; the School is registered with registration No S 5008 and is operating with 85 form 1 pupils, 9 teachers and 4 supporting staff. Construction of Hhaynu Secondary School has created major improvements; pupils have a school to attend within their vicinity, long walking distance to and from Murray Secondary School has been reduced from 8km to less than 4km, congestion that existed at Murray Secondary School has been reduced from over 100 to 40 and dropout cases have been minimized.

The School has standard administration block as well as Houses for Head Teacher and two other teachers. These buildings are important as they provide conducive working environment and stimulate the morale and motivation for teachers to work hard and commit most of their time assisting pupils towards quality education and standard life skills.



Administration block

Teacher's houses

Increased enrolments; construction of Hhaynu Secondary School has provided a room for the Council to increase enrolment of pupils from Kwermusl, Amowa, Hhayloto and Gwaami villages. It was expected that in March 2019 enrolments would rise to 200 pupils.

Hhaynu Secondary School has become a model school; Nambis Ward has 4 villages namely Kwermusl, Amowa, Hhayloto and Gwaami. Construction of Hhaynu Secondary School using participatory and self-help approaches has influenced Hhayloto and Gwaami villages to construct secondary school (Nambis) closer to their villages, hence construction of Nambis Secondary School is at final stages.

Motivated and United community; the Nambis Ward Community and the two villages of Amowa and Kwermusl have become bound together and inspirational to each other. The participation in the construction project, regular meetings and the operations of construction committee has created a sense of unity and a belief that "we can".

7.0 SUSTAINABILITY STRATEGIES

Mbulu TC and Nambis community are determined to continue with the initiative until the school is adequate for accommodating Form I-IV pupils. Hence the Amowa and Kwermusl villages are set to

continue with household cash contributions and participation in kind until satisfactory completion of the project.

Construction is ongoing; Construction of 2 classes, 2 staff houses and 3 science laboratories composed of three rooms Chemistry, Biology and Physics are at roofing stage to be completed by end of 2019.



4 unfinished classrooms

3 unfinished Science Laboratory rooms

For sustainability purposes the community has planned to plant trees to make the school green and beautiful. After some years the trees will provide a source of income and that can be used for maintenance and improvements of school infrastructure.

The Amowa and Kwermusl villages intend to make the school one of the best schools providing quality education, best learning environment and leading in performance. The villagers plan to construct hostels for boys and girls, library, an assembly hall, computer rooms and adequate number of teachers' houses. In addition, the Amowa and Kwermusl Community is soliciting for stakeholders who will speed up the process of completing both ordinary and advanced level schools.

8.0 SECRET OF SUCCESS

Nambis Ward community decision to construct own Secondary school was intended to improve teaching and learning environment by establishing Hhaynu Secondary School. One of the underlying reasons for success of this project is transparency and accountability. Progress reports of school construction were prepared and submitted to the Village Assembly after every three months of implementation for discussions and the deliberations on the way forward.

Every individual in the Amowa and Kwermusl Community was ready for the change and willing to make contributions voluntarily. A community of the same ethnic group has been a driving force to success.. Solidarity culture that exists among Iraq people also contributed greatly to fulfilment of this goal; last but not least availability of tree plantations, stones and sands supported completion of the project. Other factors include conducting fund raising events, solicitation of stakeholders and strong project implementation committee.

MSALALA DISTRICT COUNCIL



COMMUNITY SELF-HELP EFFORTS IN ESTABLISHMENT OF SEGESE SECONDARY SCHOOL



Experience of Msalala DC

1.0 INTRODUCTION

Msalala DC is one of the 6 Councils in Shinyanga Region. The Council was established in July, 2013. The Council covers an area of 2,635.52km² which is equivalent to 5.2% of the total area of Shinyanga Region and is located between Latitudes 3^o 13'' and 4^o 12'' South and Longitude 32^o 13'' and 33^o West. The Council has 2 Divisions (Msalala and Isegehe), 18 Wards, 92 Villages and 389 Vitongoji. According to 2012 Census, the Council has a population of 331,852 of which 159,289 (48%) are male and 172,563 (52%) are female with annual growth rate of 3.7%. The population density is estimated at 95 persons per km². The high growth rate is attributed by many factors including immigration due to micro mining activities and high birth rates. Major ethnic groups are Sukuma, Sumbwa and Nyamwezi. Others are Ha, Hangaza and Dakama.

The Council is dominated by extensive plains which cover almost 80% of area while 13% is valley dominated and 7% is hilly area. The rainy season is characterized by two- week to one –month dry spells, being most marked in January and February. The average annual rainfall ranges between of 750mm-1030mm.Temperature is relatively constant throughout the year with mean daily temperature ranging between 21°C to 26°C. Generally the Council lies between 345m and 958m above sea level where Chella hills are the highest point in the Council.

The economy of Msalala DC depends mainly on agriculture, livestock keeping, mining and small businesses. About 85% of the people depend on agriculture and livestock keeping as their mainstay. The total arable land (482,320ha) is utilized either for crop production or grazing. Farm sizes vary from 0.4 to 20ha per household. The main crops grown include maize, paddy, groundnuts, cowpeas and cotton. The Council is the main paddy producer in Lake Zone where 40% of all paddy comes from Msalala DC. Mining (both large and small scale) is another main economic activity.

The Council has 43 primary schools and 15 secondary schools with 156 classrooms. Meanwhile Segese Ward has 5 primary schools and 2 secondary schools having 16 classrooms. The Department of Secondary Education has a role of ensuring quality secondary education is provided to pupils and organize Integrated Post Primary Education (IPPE) through supportive and supervision of national directives and policies.

2.0 PROBLEM

In order to acquire quality secondary education, teaching and learning environment must be conducive and friendly to allow pupils interact freely during learning processes. Overcrowded classrooms, lack of desks and teaching facilities may result into ineffective teaching, pupils' drop out and poor performance in examinations. In 2013 Segese Ward had only one secondary school called Mwalimu Nyerere Secondary School; the school was overcrowded due to large number of pupils enrolled from different primary schools within and from neighboring Ward of Mega which had no secondary school. Pupils enrolled were 8,305 more than the capacity of the school (5,000 pupils).

Apart from increased enrolment, school infrastructure was inadequate; classrooms were overcrowded leading to poor teaching. Student-classroom ratio stood at 80:1, student pit latrine ratio was 60:1 for boys and 50:1 for girls against the standard latrine ratio of 25:1 for boys and 20:1 for girls. Other problems which faced Mwalimu Nyerere Secondary School were inadequate furniture (desks and tables), insufficient and delays of budget (funds) allocations from the Central Government affected

implementation of planned activities. Other challenges included shortage of science teachers and low understanding of community on importance of education led to poor contributions to education related projects. These challenges contributed into increased dropouts and low attendance.



Overcrowded classroom at Mwl Nyerere Secondary School

2.0 OBJECTIVES

Secondary Education in Tanzania is designed specifically to consolidate and broaden the scope of baseline ideas, knowledge, skills and principles acquired and developed at primary education level, enhance further development and appreciation of national unity, identity and ethics, personal integrity, respect for and readiness to work, human rights, cultural and moral values, customs, traditions and civic responsibilities and obligations and prepare students for tertiary and higher education, vocational, technical and professional training. With this background, Segese community in collaboration with Msalala DC aimed at improving the quality of education through establishing a new secondary school to provide wider chance for pupils to access quality education. The Community and Council at large intended to provide conducive environment for teaching and learning by constructing infrastructure such as classrooms, pit latrines and new laboratories for science subjects and creating sense of Community involvement in fostering education development.

4.0 IMPLEMENTATION STRATEGIES

The idea of constructing Secondary School started in 2013. Segese Ward Councilor Hon. Joseph Manyara introduced the idea to Ward Development Committee (WDC) meetings. The idea was discussed and decisions were shared to the Council for further actions. At the Council level it was agreed that the community construct buildings up to lintel level and Council assist in roofing and finishing. In order to realize this, several strategies were adopted as discussed below.

Sensitization and awareness creation; sensitization and awareness creation to community members was necessary to create common understanding. This was made by the Councilor, Ward Education Officer and members of Village Councils at Vitongoji and Village meetings. During Village Assembly meetings the ides and proposal to establish a new Segese Secondary School was shared and accepted by the villagers. Deliberations reached included securing land, establishing construction committee and mobilizing resources through contributions.

Formulation of construction Committee; a committee of 10 members was formed to coordinate all activities related to establishment of Segese Secondary School. Members of committee were selected from five villages of the Ward. The construction committee was responsible for formulating budget proposal, establishing number of households, determining and collecting cash contributions from stakeholders and supervising construction works. The budget proposed was TZS 45,448,000 while

number of households identified was 3,666. However, only 2,511 households were identified as capable to contribute for the initiative.

Resources mobilization; the Councilor mobilized community members to contribute in cash and in kind. He received support from the majority and people proposed the amount to be contributed by each household. There were three categories of contributions; stakeholders who are economically well off had to contribute TZS 200,000, these included progressive business people. People with small shops in the village centers were required to contribute TZS 50,000 each and the rest of villagers had to contribute TZS 8,000 per household. Thus progressive business people contributed TZS 8,688,000, owners of small shops TZS 3,000,000 and community members TZS 14,151,000. Apart from cash contribution, community members and stakeholders contributed sand (76 trips), stones, bags of cement (279) and corrugated iron sheets (30).

Purchase of land for construction of school infrastructure; a piece of land (5ha) where a new secondary school was constructed was purchased at price of TZS 3,800,000 from contribution made by community members. The land was initially possessed by a person from Busungo Village within Segese Ward. Thereafter, the construction work was implemented by the community using local *fundis*.

Solicitation of funds from the Council; in addition to contributions made, the Councilor requested funds from the Council in which TZS 5,200,000 was allocated from Constituency Development Fund. In addition, the Council provided TZS 53,000,000 for roofing and TZS 29,693,000 for finishing.

Securing of technical support; the Council provided technical support in terms of drawings, BOQs, supervision and monitoring of construction activities. Community participated in making concrete blocks, collecting building materials and supporting local *fundis* in construction process. In 2015, 4 classrooms, 2 latrines with 10 stances, one teachers' house and 3 laboratories were constructed and other 2 classrooms were constructed in 2016. After completion of construction works, the former Mwalimu Nyerere Secondary School provided desks, tables and chairs and the Council purchased 276 additional desks. In 2015, the Council allocated 7 teachers, education materials and inaugurated the school even before registration to relieve the pupils from overcrowded classrooms in Mwalimu Nyerere Secondary school.

5.0 RESOURCES

The work of constructing new classrooms for a new secondary school in Segese Ward involved different resources.

- (i) Human resource; Segese Community was strongly committed to contribute labor, ideas, time, material and cash.
- (ii) Physical resources included land and building materials.
- (iii) Financial resources; cash TZS 31,039,000 contributed by Segese Ward Community and TZS 87,893,000 by the Council.

6.0 RESULTS

Segese Ward Community efforts in building a new secondary school made remarkable change in education sector. The school has been established with the following facilities; 10 classrooms, 3 laboratories, 8 pit latrines for pupils, 2 pit latrines for teachers and 1 teacher house. It has increased the number of secondary schools in the Council from 14 to 15 and number of classrooms from 146 to 156. The photo below shows new Segese Secondary School.



Segese Secondary School

Improved teaching and learning environment; the teaching and learning environment in Segese Ward has been improved. Pupils' classroom ratio has improved from 80:1 to 55:1 and classrooms are no longer overcrowded. The Council has increased number of teachers from 7 in 2015 to 23 in 2019. This has increased the morale of teachers and pupils to attend school.

Increased enrollment; the new Segese Secondary School has enrolled 729 pupils out of which 425 are boys and 301 are girls. The School enrolls pupils from other nearby Wards (Shella and Mgani). This situation has created happiness among parents as their children attend school constructed through own efforts.

Improved collaboration; collaboration among community members in development activities has increased after being able to construct the school infrastructure. Community members have plans to construct more classrooms, teachers' houses, and administration block and participate in other development activities undertaken within their areas.

7.0 SUSTAINABILITY STRATEGIES

Segese Community has plans to ensure the initiative is sustainable and performing to standards required by implementing the following strategies;

- (i) Continue to contribute resources for construction of additional 4 classrooms and administration block.
- (ii) The Community has established a school board which is tasked to constantly ensure that the school runs smoothly.
- (iii) The Council continues to set development budget annually while increasing the number of staff and education equipment. These will build the capacity of the school and raise it to fully registered secondary school as currently it is operating as a satellite secondary school for Mwalimu Nyerere Secondary School. The registration process will cement the completion of establishing Segese Secondary School.

8.0 SECRET OF SUCCESS

The secret behind this success is laid under good relationship between Msalala DC and Segese Ward leadership. The Ward Councilor used to prepare different meetings where he invited the District Executive Director to appreciate the work done by the villagers. Leadership skills possessed by Ward Councilor and his ability to mobilize people to commit resource for public development remains a pillar of this success. Without his effort it is obvious that the construction of the new secondary school in Segese Ward would be impossible.

THE CITY COUNCIL OF DODOMA



CHANG'OMBE BUSINESS COMMUNITY INITIATIVE IN MARKET CONSTRUCTION



Experience of Dodoma CC

1.0 INTRODUCTION

The history of Dodoma City can be traced back before colonialism when the area was a popular passage route for the seasonal migration of wild animals from north circuit (Arusha) to southern corridor (Mikumi) currently Mikumi National Park. In the course of animal passage a historical incidence occurred when a group of elephants submerged in the wet land near Mazengo Secondary School. The act of submerging in the wet land is known as *Idodomya* in Gogo language. This historical manifestation is what came to be the origin of the name Dodoma.

Dodoma City Council is a National Capital under the Presidential Decree No.320 of 1973. It is located at the South Eastern end of Tanzania Central Plateau at an elevation of 1,200m above sea level between Latitudes 6.00° and 6.30° South, and Longitudes 35.30° and 36.02° East. The City is located at the central part of Tanzania on vital central railway line and on major crossroads of the National East West trunk road and the Great North Road (Cape Town to Cairo). Dodoma CC shares borders with Bahi DC to the West and Chamwino DC to the North, East and South. The City has 4 Division, 41 Wards, 170 Mitaa, 18 Villages and 89 Vitongoji. According to 2012 Census, the Council has a population of 459,350 whereas 222,978 are male and 236,371 are female.



Administrative Map of Dodoma CC

Land area of Dodoma CC is 2,769km² with radius of 30-40km from each direction. It is the smallest Council in Dodoma Region representing 6.3% of the total area. The climate is semi-arid, characterized by a marked seasonal rainfall distribution with long dry (April to November) and short wet (December to March) seasons and an average annual rainfall of 550 - 600mm per year. The City has moderate drainage soils with Savannah vegetation mainly dominated by Baobab trees and Acacia wood lands. The average temperature varies from 20° C in July to 30° C in November.

Economically, about 75% of people's income in the City is generated from agriculture and animal husbandry. 25% of the population engage in petty business such as retail shops, carpentry and food vending. Other activities include small and medium industries, consultancy and construction work. Main industrial products are wine, mattresses, furniture and mineral water. Others include honey, wax and herbs from forests.

2.0 PROBLEM

In common understanding, a market can be defined as a place where commodities are bought and sold at retail or wholesale prices. Thus, a market place is thought to be a place consisting of a number of shops and stalls for selling various types of goods. Most markets rely on sellers offering their goods or services in exchange for money from buyers. Chang'ombe Ward is the most populated Ward in the Council with a population of 26,122 (10,020 male and 16,102 female) compared with average population of 11,203 per Ward. The Ward being the most populated, many informal markets were established around residential areas. These markets lacked basic facilities like toilets, clean water, electricity, and dump site which led to spread of market wastes (garbage) around residential areas. The places were dirty and congested with risks of diseases and air pollution. Outbreak of diseases like cholera and typhoid were common especially during rainy season. Unorganized market led to failure of the Council to collect revenue (market fees and business license). This situation prompted the Council in collaboration with Chang'ombe Business Community to plan, design and construct a large new market to carter for the community needs.

3.0 OBJECTIVE

The main objective of this initiative was to establish a modern market within the Ward with sufficient facilities to accommodate all informal markets around residential areas. Specifically, the initiative intended to;

- (i) Locate specific area for construction of an improved market with all amenities and facilities such as water, toilets, electricity and dump site.
- (ii) Involve community in the construction and running of the market
- (iii) Improve environmental sanitation services
- (iv) Increase number of business individuals hence creating employment opportunities.
- (v) Improve and increase accessibility of loading and offloading of luggage in the Market.
- (vi) Increase Council revenue through market and business license fees.

4.0 IMPLEMENTATION STRATEGIES.

Implementation of this initiative began with community itself. Community members were not happy with air pollution around their residential areas caused by decomposed garbage. In 2015 community members presented to Mtaa Chairperson, grievances about environmental pollution caused by Msamaria Market and requested it to be demolished or shifted to another area far from their homes. The Chairperson presented these complaints to Ward Office in which members of Ward Development Committee (WDC) discussed and decided to report to the Council further actions. The Council, Chang'ombe Ward and the Business Community jointly adopted strategies elaborated below.

Organizing decision meetings; in 2015, WEO organized meetings between business community and Council officers to discuss challenges and decide on establishment of a new market. In this meeting WEO was tasked to identify open area suitable for the market. The business community was requested to participate in market construction through cost sharing mechanisms and formulate a joint construction committee for supervision of construction works.

Land Acquisition; land at Chang'ombe D center was identified and process for acquiring it was made. The Council agreed to redefine land use of proposed area from being open space to market place.

Formulation of joint supervision committee; the committee was formed and constituted members from the City Council including Council Director, City State Attorney, Town Planner, City Engineer, Trade Officer, WEO and Chairperson of Msamaria Mtaa. On the other hand, the business community had 17 representatives including Chairperson, Deputy Chairperson, Secretary and Treasurer. The role of the committee was to provide advice and sensitize the community to collaborate in establishment of a new market.

Sensitization and awareness creation; this was conducted to general public and business community through various meetings. Awareness creation focused on importance and benefits of a new market and collaboration needed towards realizing it. The community was sensitized on benefits which include improvement on hygiene and sanitation, placement of waste disposal facilities, availability of storm water drainage system and procession of proper business place trusted by creditors.

Preparation of market drawings; The Town Planner marked the market boundaries and prepared drawings for proposed shops' premises surrounding the market. Drawings were handed to WEO; each individual who wanted to construct business premises was supposed to obtain the approved drawings from WEO. The purpose was to ensure uniformity in construction for beautification of market and allow space for other market facilities.

Construction of market premises; it was agreed that premises surrounding main market be constructed by members of business community for which 654 members were identified and allocated pieces of land for construction of shop premises. The construction work was done by local *fundis* employed by owner of the premises under the supervision of the Council Engineer. One of the conditions agreed was that, construction costs should not exceed TZS 3,750,000. After completion of construction works, each business owner become a tenant and had to pay 40% of the agreed monthly rental charges to the Council for 11 years. The remaining 60% was used to cover construction costs for the whole period of 11 years and later operators will have to pay 100% of the rent. The main market that is used for vegetables and fruits was jointly constructed by the Council and the business community. All 155 vendors were each required to contribute TZS 150,000 for construction of the main market structure.



Front view of Main Market structure and stalls for vegetables vendors

5.0 RESOURCES

Construction of Chang'ombe Market involved several resources including Financial, Human and physical resources. Financial resources amounting to TZS 45,564,800 were used as shown in table 1 below.

S/No	Type of Contribution	Source of Contribution	Amount
1	Building materials	Business Community	20,956,800
2	Building materials	Hon MP	3,995,000
3	Building materials	City Council	1,298,000
4	Cement, Gravels, and Iron sheets	Hon MP	10,975,000
5	Iron sheets and Timbers	City Council	2,320,000
6	Installation of electricity and water	City Council	6,000,000
		TOTAL	45,564,800

Table 1. Financial Resources

Human resources included officers from the Council, Ward and Community Members who jointly participated directly in contribution and construction works while physical resources was land area for the market.

6.0 RESULTS

Construction of New Chang'ombe Market created positive results to the City Council and the business community. The newly established market is a unique model of joint efforts of Community and Government in solving prevailing problems. Other results include;

- (i) A market structure accommodating 700 business individuals running shops and 155 stalls for fruits and vegetables vendors. The market also accommodates more than 70 food vendors.
- (ii) Improvement in availability and accessibility of basic services in the market. These include toilet facilities, water supply and electricity service.
- (iii) Improvements in environmental health and sanitation management services within the market and therefore prevent the possibilities of outbreak of epidemic diseases like cholera. There are skip bucket containers for solid waste disposal and storage.
- (iv) The City Council has allocated a permanent Assistant Health Officer in charge of Market Health, Environment and Sanitation issues.
- Improvement in collection of Council revenues from market fees and from business license.
 Fruits and vegetables vendors pay TZS 4,000 per month while shops operators pay TZS 50,000 per month to the City Council.
- (vi) Creation of employment as a result in increase in number of vendors and service providers hence increased employment opportunities and improved living standards.
- (vii) Establishment of a new bus terminal for the buses operating to and from Kondoa and Chemba Districts leading to increase in number of customers. It is estimated that there are 50 commuter buses nearby the market every day.
- (viii) Presences of Chang'ombe market with organized operator facilitated collection of contributions for completion of science laboratory in Chang'ombe Secondary School and Ward Office.
- (ix) The market is currently used as a model in construction of other markets within the Council. For example establishment of Kikuyu and Bahi bus stand markets used the same drawings and approaches.

7.0 SUSTAINABILITY STRATEGIES

Chang'ombe Ward Community in collaboration with the City Council have set several strategies to achieve long term results to ensure sustainability. These are;

- (i) Periodic arrangements for maintenances of the market infrastructure.
- (ii) Continuous investments in improving the market from the revenue collected.
- (iii) Plans to install fire detecting devices and provide education to business community and the public on how to deal with fire hazards in the market.

8.0 SECRET OF SUCCESS

The secrets of success in this initiative include;

- (i) Strong and committed leadership of the Council, Msamaria Street Chairperson and WEO.
- (ii) Extraordinary individual efforts were committed by Ward Councilor and MP of Dodoma Urban in mobilizing people to implement the initiative.
- (iii) Readiness and commitment of business community in contributing financial and material resources.

MPWAPWA DISTRICT COUNCIL



SELF HELP EFFORTS IN ESTABLISHMENT OF MATULI SATELLITE SCHOOL



Experience of Mpwapwa DC

1.0 INTRODUCTION

Mpwapwa DC is among 8 Council of Dodoma Region. Other Councils include Bahi, Chamwino, Kondoa, Mpwapwa, Chemba DCs, Kondoa TC and Dodoma CC. The Council lies between Latitudes $6^{0}00''$ and $7^{0}30''$ South and Longitude $35^{0}45''$ and $37^{0}00$ East. The Council shares borders with Kilosa DC to the East, Kongwa DC to the North, Kilolo DC to the South and Chamwino DC to the West. The Council has an area of 7,379km² which is 18.1% of total area of Dodoma Region with 4 Divisions, 33 Wards, 113 Villages, 575 Vitongoji and 1 Township with 18 Mitaa. According to 2012 Census, the Council has a population of 324,681 whereas 156,783 are male and 167,898 are female with annual growth rate of 2.1%. Dominant tribes in the Council are Gogo followed Hehe, Kaguru and Bena.

The area is predominantly arid with spontaneous mountain chains especially in the southern and western parts elevating between 915 to 1,200 meters above sea level. The Council has a dry savannah type of climate characterized by average temperature of 27° C. Short rain season starts December to April ranging between 600 – 700mm per annum and 1,200mm per annum in mountainous areas like Kiboriani, Wotta, Lufu, Mbuga and Mang'aliza.

Major economic activities in the Council include Agriculture and livestock keeping which employ about 90%, small and medium scale businesses 7%, small scale industries 1% and office works 2% of the total population. Crops grown are maize, millet, groundnuts, beans, rice, sweat potatoes, onions and sunflower. It is estimated that agricultural sector contributes about 48% of the total Council GDP.

Mpwapwa DC has 122 Pre-primary schools, 115 primary schools, 956 teachers and 24 Public Secondary schools with 234 teachers. Literacy rate is estimated to be 53%.

2.0 PROBLEM

Inadequate number of Primary Schools, distance and geographical hindrance to reach schools are the major problems in many villages of Tanzania. The Convention of Rights for Child (CRC) of 1990 states that "Children's right to education is one of the tenets of the convention". The convention goes further by stipulating some key issues in attaining education at any level, that children should not only have the opportunity to enroll in school but also should complete the required school level. Mpwapwa DC experienced pupils drop out from schools, late enrolment and late school attendance. Some of factors that contributed to this include long walking distance to schools and difficult geographical location of schools. In some cases children faced difficulties in attending classes and hated school during heavy rainfall, storm and threats of wild animals and snakes.

Matuli Village of Manghaliza Ward is located 120km away from Mpwapwa town. Before 2001, Matuli village faced challenges in provision of primary education. Pupils had to attend school at Manghaliza Primary school located 5km away from the village and spent more than 2 hours walking to school every day. Long distances through forests and presence of hooligans along the way led to problems such as raping and early pregnancies. Between 1995 and 2000, 5 pregnancy cases were reported. Similarly, during 1990s 3 cases of pupil deaths because of heavy rainfall while on the way to school were reported. Despite the fact that primary education is mandatory for all children aged 7 years and above, more than 60% of Matuli village children were not enrolled into pre-primary and primary school. Out of the remaining 40% who were enrolled, 15% dropped out of school due to challenges mentioned above.

3.0 OBJECTIVE

The main objective of this initiative was to improve learning and teaching environment by establishing Matuli Satellite School. Specifically the initiative intended to;

- (i) Construct school infrastructure such as classrooms, toilets, and offices to accommodate pupils and teachers.
- (ii) Reduce or eliminate school dropouts.
- (iii) Reduce walking distance to school.
- (iv) Improve accessibility to education services.
- (v) Reduce or eliminate risks associated with long distances to school.

4.0 IMPLEMENTATION STRATEGIES

Existing primary and secondary schools in Mpwapwa DC experienced shortages of school infrastructure. The central Government through PEDP and SEDP in collaboration with the Council have been supporting community initiatives in the construction of school infrastructures mainly classrooms, teachers houses, laboratories, hostels and toilets. However, the Construction of Matuli Satellite School was implemented without major interventions from the Government.

Initiation of the initiative; primary school construction is not an easy task to low income community especially in rural areas and specifically a peripheral village. The construction of Matuli satellite school was a bit different. People were extremely motivated and felt a need to get involved in construction. The initiative to construct a satellite school was started by citizens themselves. This voluntary practice is commonly called WANYAHUSI in Gogo language. The idea came from Mr. Mariani Munyi in 2000. He started initiating his idea by sharing with key people including famous elders in Matuli village, religious leaders, and Village Council members and nearby residents. Mr. Munyi said "....I believed it will come true, one day we will rescue our children from this huge burden of walking more than 5kms to school... to others it is like a night mare but to me.... is like a never ending story until the case is solved, unbelievable.... finally we made it 6 classrooms, 04 Pit latrine and 2 staff house to date".

Community participation and motivation; one major strategy employed was to involve each community member to participate in the process regardless of financial status of individuals. Information was spread to all households within Matuli Village. This unity brought positive motivation and self-decision to participate in the construction process. Emulating self-reliance model, the Matuli community harnessed multi-directional strategies to achieve the goal of constructing a primary school.

Community Sensitization; implementation of the initiative started in 2001 by conducting public and influential leaders meetings. Village and Vitongoji leaders were key persons in the process. Influential leaders including tribal leaders were given the role of community sensitization, awareness creation and encouragement of the villagers to participate fully in project implementation. Similarly, various meetings were held at Vitongoji level, Village Council and Village assembly to discuss and raise awareness to community members and stakeholders to feel the problem of lack of primary school in the village and challenges pupils encountered. Following a number of meetings and awareness created, the community agreed to participate fully in contributing cash, making bricks and participate in construction works.

Acquisition of land; land for construction of school infrastructure was obtained from community members. In 2003, Agnes Haliyake Mdede and Isdory Yotham Dama who also felt the need to have school for the children decided to offer pieces of their land without compensation. The total land area was 7 acres, sufficient for construction of classrooms, offices, toilets, teachers' houses and playing grounds for the pupils.

Formation of construction committee; villagers realized that the Village Council is tasked with many routine activities and that they could not be effective to supervise construction works. It was decided to form special construction committee to avoid any unnecessary delays. The committee of 8 members was formed with gender consideration and representative from every Kitongoji at Matuli Village. The committee was given Terms of Reference to lead daily activities. Among roles of the committee were collecting contributions from community members, management of funds and supervision of construction works.

Establishment of contributions; villagers agreed to contribute TZS 10,000 from each of 300 households. Apart from cash contribution it was decided each Kitongoji to contribute 5,000 bricks. Vitongoji Chairpersons were tasked to organize people to make brick in order to raise 35,000 bricks that were required. Brick making and collection of contributions was accomplished in 2003.

Construction of Classrooms, toilets and teachers' houses; construction works started in 2004 and by 2010 6 classrooms, 4 pit latrines, teachers house and one office were complete and pupils were enrolled. During construction, community members participated in collecting building material such as sand, stone and fetching water. Cash collected was used to buy industrial materials. The Member of Parliament provided 140 iron sheets to support community efforts. However, the school is not yet registered and it operates as a satellite school of Manghaliza Primary School.

5.0 RESOURCES

Resources used include Financial, Physical and Human Resources; Financial Resources included TZS 50,000,000 from community contributions. Physical resources include 7 acres of land, 50 desks provided by the Council and 140 iron sheets provided by Member of Parliament. Human resources included community members, Village leaders who organized people to accomplish construction works and the workforce from the village.

6.0 RESULTS

Implementation of this initiative led to the following results;

School Infrastructure in place; the Community and the Council managed to construct six classrooms, four pit latrines, one teacher's house and 50 desks at Matuli satellite school. Presence of infrastructure and furniture has improved teaching and learning environment and created a new education journey to Matuli children leading to an elite generation.



Matuli Primary School infrastructure

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Reduced walking distance to school; the walking distance to school has been reduced from 5km to less than 1km leading to increased morale of pupils to attend school and reduce dropout from 60% to less than 10%. Risks that pupils experienced on the way to and from school have been eliminated.

Decrease illiteracy; illiteracy rate in village has decreased as many school aged pupils enroll and attend school. Likewise, the community has been empowered to accomplish other development projects. Community realized that through self-help efforts they are able to accomplish many other development initiatives. The community has learnt that their lives and development are in their hands. Photo below show the happy community members in front of classrooms.



Motivated Community

The community has established a school farm to produce maize for provision of porridge to all pupils everyday while in school. The parents/guardians participate in farm preparation, sowing and weeding. The photos below show school maize farm.



Matuli school maize farm

7.0 STRATEGIES FOR SUSTAINABILITY

Community involvement in generating ideas on project preparation, implementation, monitoring and evaluation has impacted the capacity to engage in development and sense of ownership leading to sustainability of development initiatives. In order to enhance sustainability of the results of this initiative, the following strategies are in place;

- (i) There is a continuous community sensitization and awareness creation to participate in maintaining their school.
- (ii) The community has a plan to construct more school infrastructure to meet requirements for school to be registered.
- (iii) The Council provides technical support to ensure qualification for registration.

8.0 SECRET OF SUCCESS

The initiative was a felt need of the Community; the community realized their vulnerability as a peripheral sub village so they had a desire and commitment to do it. Likewise, strong leadership of Vitongoji and Village leaders in organizing the community made the initiative to be implemented smoothly. Strong cooperation from Village to Council level, commitment of key people in the community motivated individuals to accomplish the project. A daring heart of one man in the village to share his ideas with village leaders and other community members served as catalyst to completion of this initiative.

Chapter Three

Participatory Service Delivery

Service delivery is an essential function in the relation between governments and citizens. Service is a system or arrangement that supplies public needs. Helmsing (1995) defines service delivery as a deliberate obligatory decision by the elected or appointed officials to serve or deliver goods and services to the recipients. Service delivery is a continuous, cyclic process for developing and delivering user - focused services. It involves user engagement that is, identifying users and understanding their needs. Service delivery also requires service design and development process among users, providers, suppliers, and partners in creating, designing, developing services and ensuring user needs are met. Ultimately, service delivery is about producing, disseminating, and communicating the services that are fit for purpose and relevant to user needs. In service delivery there is always a need for evaluation and improvement process to collect user feedback and performance metrics to continuously evaluate and improve upon products and services.

Service delivery is the government's key task. Government exists among other reasons because it is the only structure that can properly provide the guidance of certain critical services such as public order, safety, infrastructure and management. The requirement and concern for such provisions gives legitimacy to government activities. It is laid down in constitutions and international treaties that government is responsible for basic services in many social areas including education, social security, basic provisions, legal protection and housing. For citizens, their Local Government is the most tangible form of government; it is also the layer of government with which they have most contact in their everyday life.

The Tanzanian Local Government Structure shows that LGAs provide services that are social in nature i.e. health, water, education, welfare, waste management and those that are economic in nature i.e. Land and human settlements, infrastructure, agriculture, environment and community development. The concept of participatory service delivery used in this handbook, refers to service delivery that attracts all stakeholders. The center of participation is the community that benefits from the services provided by the community itself, the local government authority, the central government, non-governmental organizations or even international organizations. Participatory service delivery places the beneficiary community at the center during planning, delivery of the service and evaluation of the efficacy of the service. Participatory service delivery guarantees sustainability of the services being provided. In this chapter, eight cases on participatory service delivery are presented from Njombe TC, Njombe DC, Makambako TC, Kiteto DC, Singida MC, Iramba DC, Shinyanga RS and Kondoa TC.

Njombe TC case is about Participatory Solid Waste Management and Environmental Cleanliness. By 2010, the increase in population in Njombe TC resulted into increased and rapid accumulation of solid waste in the urban Wards while the Council had insufficient funds to manage all solid waste due to dependency on CG subventions. The main objective was to improve cleanliness and reduce solid waste accumulation. The Council had to engage in use of contracts and community meetings, rehabilitation of trucks, preparation of timetable for solid waste collection in the streets, adoption of direct collection of solid waste from the sources, awareness creation and enforcement of bylaws. Results of this initiative

include decrease in cases of sanitation related diseases, obtaining awards in Annual Environment and Sanitation Competitions, Town greening and beautification and increase in refuse collection fees. To sustain the initiative the Council has a programme to continue sensitizing the community on issues related to waste management including sorting and handling of wastes at production sites. The initiative was successful because of commitment and innovation of the Department of Environment and Sanitation in cleanliness and waste management, willingness of the community in contributing fees and seeing that they are part and parcel of Town cleanliness, teamwork and ability of the CMT and readiness of political leaders to engage in all issues of Town cleanliness and solid waste management.

Njombe DC best practice elaborates on Community Based Establishment of Matembwe Timber Market. Communities in Njombe DC experienced unreliable and centralized timber market hence the Council planned to construct a Market as "one stop center" for Council Revenue collection, Transit permits (TP) provision, registration for forest produce licenses and TRA revenue receipt system (electronic). To achieve this end, the Council designed strategies which include sensitization and establishment of tree growers associations, promote tree planting and beekeeping, construction of feeder road, training of UWAMIMA members and finally establishment of a Timber Market as "one stop center". The results are evident as there is availability of strong association and a functioning market, employment opportunities, increased timber production and revenue collection, increased timber processing and improved price information and communication. For sustainability, UWAMIMA intends to install a heavy timber processing plant and weighbridge for determining heavy trucks weight and for fair pricing while technical staff from Njombe DC will continue to assist UWAMIMA timber market in daily operations and build the capacity of the Market Committee on management, record keeping and decision making. All in all, the natural environment, climate and the hardworking communities of Njombe DC provide major explanation for success of the timber market initiative.

Makambako TC best practice narrates Participatory Surveying of Unplanned Settlements. Between 1969 and 2015, the growth of the town outran official capacity to control urban development and plan land use. Realizing the proliferation of unplanned land use, the Council deliberated to plan and survey land in all un-surveyed Wards. This involved stakeholders' participation, invoking land planning cost sharing, use of field work students to survey land and survey of plots in phases. The initiative has led to generation of 291 surveyed plots, increase in land value, resolution of land disputes, securing of land for public services and provision of title deeds to land owners. The Council has a strategic plan to collaborate with other stakeholders to plan and survey all urban Wards using Maguvani Ward Model. Community participation in the whole process and sharing land planning costs between the Council and Community make the secret for success of this initiative.

Kiteto DC best practice is about Enabling School-Aged Children from Nomadic Communities Attend Primary Education implemented in Partimbo Ward. Before implementation of this initiative pupils' dropout was high caused by early pregnancy, childhood marriages and secondment. Other reasons were use of children as cattle herders and long distances from home to school. This forced the Council to intervene for improved education service and infrastructure among rural and nomadic pastoral communities. The Council in collaboration with District Commissioner made awareness to parents to enrol their children for primary education. In addition the Council improved school facilities such as dormitories, purchase of beds and mattresses and constructed dining hall for provision of food at school and establish parents-students register for boarding school pupils to ease communication between school administration and parents. The results of this initiative include improved awareness of parents, provision of meals and caretaking, increase in demand for education and improved school infrastructure. The Council initiative succeeded due to effective leadership of the District Commissioner and the Council Director who strongly supported the initiative, provision of favourite meals to pupils motivated them to attend school and use of parents to explain to pupils various modern issues they are supposed to observe while at school in Maasai language.

Singida Municipal Council initiative is about Upgrading Misuna Bus Terminal for Improved Services. Before implementation of this initiative, the Council experienced financial difficulties due to limited revenue collections from own sources. This led to poor provision of social-economic services which were reflected by bad roads, poor health facilities, insufficient desks and classrooms and inadequate potable water especially in suburbs. This situation prompted Singida MC to decide and construct a modern bus terminal to provide services and enhance revenue collection for improved service delivery. The Council acquired land at Misuna area after organizing several meetings with citizens in Misuna Ward in which it was agreed to use open space that was available. Likewise the Council organized meetings with business operators to build standard kiosks, shops, restaurants and toilets around Misuna bus terminal using own costs so that they could run their businesses in the area and improve the environment for business and economic activities. Meanwhile the Council requested assistance from CG through Urban Local Government Strengthening Support Program (ULGSP) for bus terminal construction. The result of this initiative include presence of a well-functioning bus terminal, increased revenue collection, introduction of electronic system for revenue collection, creation of employment opportunities and establishment of service delivery institutions. Secret of success of this initiative include strong relationship with the CG through ULGSP, use of participatory approaches, teamwork amongst CMT members and effective collaboration with the Regional Commissioner's Office.

Iramba DC Case is on Improvement of Maternal Health Services. The Council experienced maternal death rate of 100 in every 100,000 livebirths. After realizing the trend of maternal deaths the Council decided to improve health services and eliminate maternal deaths. In collaboration with stakeholders the Council formulated a task force to determine the problem and intervene. Strategies adopted include provision of health education to pregnant women and mothers, improve referral system from dispensaries and health centers to the district hospital, rehabilitation of maternity waiting home building, assigning matron/patron for each health facility and awareness creation and provision of rehabilitation of maternal waiting home building and provision of facilities and medical equipment, regular provision of health education, increased number of women attending health centers for success of this initiative centers on community readiness and willingness to receive health education and use knowledge acquired for change and commitment of the CMT to allocate resources for rehabilitation of health facilities.

Shinyanga RS initiative is about reduction of Maternal and Child Deaths. Shinyanga Regional Referral Hospital (RRH) experienced several deaths of expecting mothers and infants mainly due to inadequate supply of safe blood for transfusion during emergency cases and insufficient supply of intravenous fluid for infusion. The RS and the RHMT set an objective to improve health services by reducing both maternal and child mortality caused by lack of safe blood and intravenous fluid for infusion. The main issue was to secure support from various stakeholders on how to rectify the problems. The RS wrote letters to different stakeholders requesting for support. Among the stakeholders approached were United Nations Population Fund (UNFPA), Touch Foundation, and Saint Luke. Through these efforts the RS and RRH was able to establish blood bank, maternity waiting home, a factory for manufacturing

infusion fluid hence maternal deaths was reduced. This initiative was successful due to creativity of the RS management team, effective coordination between the RS, RRH, RHMT and CHMT and effective collaboration with local and international stakeholders.

Kondoa Town Council best practice is about Participatory Solid Waste Management. The Council experienced increase in production of solid waste from 47.45T to 59.22T per day as a result of increase in population from 28,337 in 2002 to 59,022 in 2012. Residents littered their surroundings and caused environmental pollution causing different types of diseases such as cholera, typhoid, stomach ache, dysentery and diarrhea. In June, 2017 Kondoa TC set an objective of improving solid waste management to reduce outbreaks of communicable diseases and beautification of the town. The Council adopted various strategies including sensitization of community members, decentralization of solid waste management, and formation of Mitaa environmental committees and participatory enforcement of environmental bylaws. The results of this initiative include increased awareness on environmental cleanliness, decreased outbreaks of communicable diseases, decentralized solid waste management and creation of employment opportunities in solid waste management. The Council made a revolution on environmental cleanliness and solid waste collection due to strong team work between Council staff, Councilors and the District Commissioner's office in supervision of town cleaning and willingness of the community to adopt decentralized system of solid waste management.

NJOMBE TOWN COUNCIL



PARTICIPATORY SOLID WASTE MANAGEMENT AND ENVIRONMENTAL CLEANLINESS



Experience of Njombe TC

1.0 INTRODUCTION

Njombe TC is one of the six Councils in Njombe Region established in 2007. The Council is located between Latitude 9°10' and 9°45'South and Longitudes 34°25' and 35°27'East. Njombe TC is the second smallest Council in terms of land area in the Region. It has a surface area of 3,212km² equivalent to 15.2% of the total regional land area. The Council has 2 Divisions, 13 Wards, 26 Mitaa, 44 Villages and 232 Vitongoji. Njombe Mjini, Mjimwema and Ramadhani Wards are situated in the urbanized area. According to 2012 Census, Njombe TC has a total population of 130, 223 whereas 61,112 are male and 69,111 are female. The economy is dominated by trade, agriculture, livestock keeping, fishing, manufacturing and employment in private timber companies and public sector.



Geographical Location of Njombe TC in Njombe Region

2.0 PROBLEM

During 1990s and 2000s Njombe TC experienced population growth caused by immigration of people from different parts of Tanzania due to increased business activities. By 2010, the increase in population resulted into increased and rapid accumulation of solid waste in the urban Wards. Despite of increased production of solid waste, the system for managing waste remained the same. There was no adequate equipment for solid waste collection from the collection points to the crude dumping site. Though the Council hired vehicles from private owners, the vehicles were not sufficient to collect all solid waste produced in a day. Only 10 tones were collected out of 65 tons produced in a day.

The Council had insufficient funds to manage all solid waste due to dependency on own sources to pay for hired vehicles. Community participation through contributions for refuse collection fee was poor. The community as well, was not conscious on participation and involvement required in managing the waste as they perceived it to be fully a responsibility of the Council. This situation resulted into accumulation of solid waste at collection centers such as the market place, SIDO, Magereza, Kambarage, Posta Kati, Mgendela and National Housing Streets. These areas became nuisance to the households around and made the community susceptible to diseases.



Accumulation of solid wastes in a collection center (Kizimba)

3.0 OBJECTIVE

Collection is the first fundamental function of solid waste management. Solid waste collection refers to the gathering of solid waste from places such as residential, commercial, institutional, and industrial areas, as well as public parks. The three basic methods of collection are Curbside collection, Set-out and set-back collection and Backyard collection. The main objective of Njombe TC initiative was to improve cleanliness and reduce solid waste accumulation by enhancing collection and transportation of generated solid waste timely to the dumping site. The initiative also intended to;

- (i) Create community awareness on proper handling of solid waste.
- (ii) Establish refuse collection fees.
- (iii) Rehabilitate and procure new solid waste management equipment.
- (iv) Enforce laws and Council bylaws related to handling of solid waste.
- (v) Control outbreak of diseases that originate from dirty environment.
- (vi) Involve various stakeholders on issues related to sanitation and cleanliness.

4.0 IMPLEMENTATION STRATEGIES

Solid waste collection is the action of taking away garbage produced by households and commercial establishments located in residential areas, such as shops, restaurants, small workshops and markets. The garbage is taken from the households to the transfer collection points in or near the neighborhood or Ward. This is primary collection. From this collection point the Town Council or its private agent takes the garbage to the municipal dump for final disposal. This is secondary collection.

Solid waste collection is one of the priorities of Njombe TC focused towards ensuring and maintaining clean, beautiful and healthy environment for town dwellers. The Council believes that good health of its people is an important development aspect. It also believes that clean and healthy environment creates protection against ill health and reduces costs of dealing with unhealthy people. In order to realize these aspirations the Council designed several strategies as described below.

Use of contracts and community meetings; in 2013, Njombe TC realized the need to commit itself in depth to issues related to solid waste management. At the beginning the Council decided to contract out the collection of solid waste and refuse fees to private sector, but the service provider failed after only nine months. This made the Council to engage in other approaches including organizing meetings with market leaders who were reluctant in paying refuse fees and constantly complaining over the amount required to pay. After the meetings and sensitization, market leaders decided to manage solid waste issues at the market by their own and accepted to contribute TZS 1,000 from each stall. The total amount collected from the market was TZS 3,190,000/= per month which could not suffice collection of waste at the market place. This made the market users to agree to pay refuse fees as per Council bylaws.

Collection of waste by the Council; In 2016/2017 the Council opted to clean and manage waste directly without using service providers. The Environment and Sanitation Department proposed to the Council Management Team (CMT) to change the usage of a truck owned by the Council from being in other development activities especially construction works and use it for waste collection and transportation to the dumping site. The proposal was accepted by CMT and Finance Committee and the department started using the truck to collect solid waste from collection points.



Njombe TC truck provided for solid waste collection

Rehabilitation of an old truck; in the same year (2013), the Department raised another proposal to renovate another old Isuzu truck which was about to be auctioned. The idea was accepted by CMT, Finance Committee and Full Council and later the Council decided to rehabilitate the vehicle at a cost of TZS 13m. The truck increased the capacity of waste transportation to the dumping site.



Rehabilitated Isuzu truck

Preparation of timetable for solid waste collection in the streets; having two trucks the Council arranged a timetable for waste collection around the Town. The timetable indicated date of collection, time, places and responsible officer. The time table was fully supervised by Mtaa Executive Officers (MEO). The time table is presented in Table 1 below. The second truck attends other places which require daily cleanness such as Hagafilo Police (Songea Road), Central Market, commuter bus stand and the main bus stand.

The timetable for solid wastes collection at streets					
First Truck					
S/N	DAY	TIME	PLACE	RESPONSIBLE OFFICER	
1	MONDAY	08:00 - 10:00AM	IDUNDILANGA	Transport Officer, MEO	
		11:00-13:00	MPECHI		
		14:00 - 16:00	KIBENA		
		14:00 - 16:00	HAGAFILO		
		14:00 - 16:00	MJIMWEMA		
		14:00 - 16:00	NATIONAL HOUSING		
				Health Officer	
2	TUESDAY	08:00 – 10:00AM	KWIVAHA	Transport Officer, MEO	
		11:00-13:00	KIHESA		
		11:00-13:00	RAMADHANI		
		14:00 - 16:00	KAMBARAGE		
				Health Officer	
3	WEDNESDAY	08:00 - 10:00AM	BUGURUNI	Transport Officer, MEO	
		11:00-13:00	SIDO		
		14:00-16:00	POSTA-MITAANI		
				Health Officer	
4	THURSDAY	08:00 - 10:00AM	MGENDELA	Transport Officer, MEO	
		11:00-13:00	NATIONAL HOUSING		
		13:00-14:00	KIHESA		
		14:00-16:00	KIBENA		
				Health Officer	
5	FRIDAY	08:00 - 09:00AM	MJI MWEMA	Transport Officer, MEO	
		09:00 -11:00	NAZARETI		
		11:00-13:00	MELINZE		
		13:00-14:00	MPECHI		
		14:00-16:00	JOSHONI		
				Health Officer	
6	SATURDAY	08:00 – 09:00AM	HAGAFILO	Transport Officer, MEO	
		11:00-12:00	BUGURUNI		
		13:00-15:00	SIDO		
		15:00- 16:00	POSTA MITAANI		

Table 1: Waste Collection Timetable

Adoption of direct collection of solid waste from the source; due to efficiency of the two trucks and adhering to the timetable, the Council decided to shift from the use of collection point (*Vizimba*) which created nuisance to people around the town center and started to collect from production points. Community members were advised to collect solid waste from homes and business areas and deliver directly to the trucks instead of depositing waste at the *Vizimba*.



People Loading Solid Wastes to the trucks

Awareness creation; the Council conducted sensitization forums to community members about handling and separation of solid waste, payment of refuse fees and engaging in general cleanliness of areas surrounding their homes and businesses on monthly bases. Sensitization was implemented through organized meetings in every Mitaa. The meetings were organized and addressed by Community Development Officers, Environmental Officers, and MEOs.



General cleanness on progress

Enforcement of the bylaws; the Council entered into contract with law broker (Yono Auction Mart) to enforce the bylaws on Town cleanliness, beautification and collection of refuse fees. In addition, the Council recruited 5 Auxiliary Police that are deployed in preventing people from conducting businesses in prohibited areas (a practice which contributes to Town untidiness and congestion).

Purchase of new truck and tractor; in 2016/2017 the Council bought another truck for waste transportation which costed TZS 218,000,000. The truck has increased the capacity of waste transported to dump site from 20 to 40 tons per day. Solid waste produced per was about 65 tons. Similarly, the Council was awarded a tractor for waste collection during Environment and Sanitation Competition for Town Councils which boosted the capacity of collecting solid waste to the dump site. In 2017/2018, the Council bought another tractor at a cost of TZS 79m which enhanced the capacity of waste collection for 40 to 55 tons per day. The Council also participated in Environment and Sanitation Competition for 2017/2018 and won another new tractor.



Njombe TC receiving tractor for being the first winner in environment and sanitation competition

Establishing rapport from political leaders; the Council presented the idea of this initiative to Political leaders i.e. the Regional Commissioner (RC) and the District Commissioner (DC). This activity acquainted the leaders on issues and strategies for improving cleanliness of the town. The RC and DC supported this initiative and issued a directive to remove all businesses in unauthorized areas.

Establishment of two markets at Joshoni and Machinjioni; in order to transfer petty traders (*Machingas*) from unauthorized areas, the Council established two market places at Joshoni and Machinjioni to accommodate all business operators and *Machingas* who used to sale their properties along Makambako Songea Road which was congested and untidy.



Joshoni Market

Making environmental cleanliness a permanent agenda; the Council made environmental cleanliness a permanent agenda in all meetings at all levels from Wards (WDC) to the Council level for sustainable cleanliness of Njombe Town. This ensures presence of discussions on all issues and maters of environmental cleanliness and beautification in all meetings of the Full Council.

5.0 RESOURCES

In order to realize the objectives of having a clean Town, the Council committed several human, physical and financial resources. Human Resources included CMT members, WDC, MEOs, 35 Casual labors, 5 auxiliary police and drivers; all poised to ensure clean and tidy Njombe Town. Physical resources included 1 excavator, 3 lorries, 3 tractors and 1 motorcycle. Financial resources included TZS 627,000,000 allocated in three consecutive years (2015/2016, 2016/2017 and 2017/2018) as indicated in table 2 below.

2015/2016	2016/2017	2017/2018	Source of Fund	
108,000,000/=	132,000,000/=	113,000,000/=	Own Source	
0	195,000,000/=	79,000,000/=	ULGSP	

Table 2. Financial Resources



Excavator at Maheve dumping site

6.0 RESULTS

Implementation of participatory solid waste management and environmental cleanliness initiative has assisted Njombe TC to realize different significant results. One important result is decrease in cases of sanitation related diseases as indicated in Table 3 below. For example, no cases of cholera have been reported since establishment and adoption of the initiative. In 2015, cholera became endemic disease in Tanzania but Njombe Town was the only Council which did not report any case.

DISEASES			YEARS			
	2014	2015	2016	2017	2018	
Typhoid cases	3268	2211	1164	998	406	
Dysentery cases	570	546	339	271	231	
Malaria cases	2489	2317	2238	1185	706	

Table 3: Trends of sanitation related diseases

Obtaining awards in Annual Environment and Sanitation Competitions; the Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC) organizes completions of Local Governments on Environment and Sanitation Competitions annually in which Town Councils is one of the categories. Njombe TC Council won three times (Three years consecutively during the 2016, 2017 and 2018) at the category of Town Councils in Tanzania. The Council was awarded 1 motorcycle in 2016, 2 tractors; one in 2017 and another in 2018.



Awards obtained by Njombe TC

Town greening and beautification; Njombe TC experiences long rainy seasons coupled with cooler climate. This allows evergreen environment which provides opportunity for the council and communities to engage in gardening and park maintenance. In this context the Council has managed to convert the usage of waste collection points into recreation garden. The park pictured below is an example of a former waste collection area that has been improved and greened into a recreational park and used by children, elderly and event makers such as video and photo shooters.



A recreation garden

Refuse collection fees have increased from TZS 8,843,000 in 2014/2015 to TZS 43,318,000 in 2017/2018. Due to a major change in community attitudes towards solid waste management, willingness to participate and pay the refuse fees has improved significantly. This is reflected partly in revenue increase and partly in town cleanliness. The community participate in general cleanliness, sorting and separation of solid waste which has reduced the burden of the council in these processes and has improved management of solid waste and the land fill.

7.0 SUSTAINABILITY STRATEGIES

Njombe TC is determined to engage into environmental cleanliness and management of solid waste perpetually without losing current standards. To ensure that the cleanliness of the Council is maintained sustainably, the Council is determined to;

- (i) Continue sensitizing the community on issues related to waste management including sorting and handling wastes at production sites.
- (ii) Sustainably involve higher level leaders i.e. Regional and District Commissioners to champion initiatives related to sanitation and solid waste management.
- (iii) Continue to procure, service and maintain vehicles and equipment for solid waste management.

- (iv) Formulate economic groups especially women and youth's and provide them with soft loans that will assist them to recycle or reuse waste such as plastics, papers and rubber materials.
- (v) Involve religious organizations and private sector in solid waste management. The Council is in a process of building a waste recycling plant in collaboration with the Roman Catholic Church to make use of selected solid waste as raw material.
- (vi) Ensure environmental cleanliness and solid waste management is a permanent agenda in all meetings from Wards to Council meetings for sustainable cleanliness of a town.
- (vii) Accelerate the process of preparing master plan of the Town and construction of new bus stand and central market which will include all necessary facilities of solid waste management.
- (viii) Fast-track the revision of refuse collection fee to reflect the actual costs of operations in solid waste management.

8.0 SECRET OF SUCCESS

Njombe TC has achieved this success due to a number of underlying reasons. One major reason is effective commitment and cooperation of the Town Director and Chairperson in prompt decision making with regard to releasing resources for environmental cleanliness and solid waste management. Other reasons include commitment and innovation of the Department of Environment and Sanitation in cleanliness and waste management, willingness of the community in contributing fees and seeing that they are part and parcel of Town cleanliness, teamwork and ability of the CMT and readiness of political leaders to engage in all issues of Town cleanliness and solid waste management.

NJOMBE DISTRICT COUNCIL



COMMUNITY BASED ESTABLISHMENT OF MATEMBWE TIMBER MARKET



Experience of Matembwe Ward

1.0 INTRODUCTION

Njombe DC is among 6 Councils of Njombe Region situated in Southern Highlands of Tanzania sharing borders with Makambako TC and Mufindi DC to the North, Morogoro Region to the East, Njombe TC to South, Ruvuma Region to the South West and Wangingómbe DC to the West. The Council is located between Latitudes 8°.8' and 9°.8' South and between Longitudes 33°.5' and 35°.8'East. Njombe DC has a total land area of 3,154km².

According to 2012 Census the Council had a population of 85,747 in 2012 compared to 89,433 inhabitants counted in 2002 Population Census. The decline of the Council population, among other factors, was due to the establishment of Wanging'ombe DC from Njombe DC in 2012. Compared to other Councils of Njombe Region, Njombe DC is the least populous Council after Makambako TC contributing 12.21% of the regional population. The Council has 2 Division, 12 Wards, 45 Villages, 227 Vitongoji with 20,341 households.



Njombe Region Map

Njombe DC is dominated by extended plateau characterized by Kipengere mountain ranges in the northwestern parts, Lukumburu Mountains in the southern parts and Lupembe mountain ranges in the eastern parts. Njombe's climate is classified as warm and temperate. When compared with winter, the summers have much more rainfall. In March, the rainfall reaches its peak with an average of 258mm. Temperature is highest in November, at an average of 18.0°C. At 12.8°C while July is the coldest month of the year.

Agriculture is the main source of livelihood for the residents of Njombe DC. According to 2012 census, the sector employed more than 72% of adult population. Despite the fact that agriculture is the leading sub-sector in the economy of the Council, its performance has been declining due to several factors such as use of poor agriculture tools, application of outdated agricultural practices, pest problems and low purchasing power of the people which tends to discourage the use of modern agricultural practices.

Tree planting has become an important venture by many small holder farmers in Njombe DC. Currently, it is estimated that, over 19,538.31Ha of land are covered by tree plantations owned by small holder farmers while only about 10,328.14Ha of tree plantations are public owned. Natural forest reserve

covers an area of 1,225.76Ha including the Iditima catchment forests (500Ha) which is owned and managed by the Central government via Tanzania Forest Service Agency (TFS).

2.0 PROBLEM

Njombe DC is heavily endowed with forestry potentials. The woodlands are lightly exploited to fulfill demands on fuel wood, charcoal, timber and building materials. Efforts have been made to preserve certain forests to prevent effect of over deforestation.

Njombe DC communities experienced unreliable timber market which emanated from multidimensional reasons including series of unscrupulous middlemen, unstable timber prices, harvesting of juvenile trees and difficulties in revenue collection by the Council particularly due to scattered tree growers' selling points. The lack of organized marketing of timber created a number of problems. Harvesting of juvenile (young trees) from unmanaged/unattended forests became rampant and reduced the quality of timber produced hence fetching low prices. For example within the Council, timber with size 2" X 4" was sold between TZS 800/= and TZS 1,500/=, while in markets outside Njombe Region the prices were between TZS 4,500/= and TZS 6,000/=. This plunged local tree growers into long-lasting poverty circle. The second problem was based on poor roads; this continued to be an impediment to tree growers especially during the rainy season in transporting timber to markets which resulted into low prices of timber and sustained low incomes.

These challenges were reflected in low Council revenue collection. The Council collected less than TZS 540,000/= in 2014. Most of timber middlemen used to escape from paying fees related to forest products such as timber and charcoal. This increased the costs of making follow-ups and patrols to prevent illegal transportation of forest products. One patrol per day costed the Council TZS 670,000/=.

The Council as well had severe shortage of human resources in natural resources department which resulted into poor extension services. In 2019 the Council had only 8 staff in the department of natural resources while large part of the community depend on tree plantations. Over 19,538.31Ha are covered by forest plantation owned by the small holder farmers who need prompt, adequate and sustainable extension services.

3.0 OBJECTIVE

The forest policy focuses on emphasizing and promoting tree planting and establishing alternative income generating activities (IGA) as an incentive towards community economic empowerment aimed at reducing poverty among tree growing communities. The Council in cooperation with development partners formed 5 Tree Growers associations (TGA) in Matembwe, Ikuna, Nyombo, Ikang'asi and Itambo Villages. The TGAs members were supported with tree planting materials and equipment and provided with training deemed necessary. Among the formed TGAs include "Umoja wa Wapandaji Miti Matembwe" (UWAMIMA) which has shown a positive change and countable results/outcomes. This TGA was established in 2009 and dully registered on 22/09/2010 with Reg No: S.A 17093 by the Ministry of Home Affairs.

The specific objectives of this initiative were;

- (i) To increase direct benefits to Tree Growers Association UWAMIMA members.
- (ii) To create and improve value chain of forest produce and associated products.
- (iii) To construct a Market as "one stop center" for Council Revenue collection, Transits permit (TP) provision, Registration for forest produce licenses and TRA revenue receipt system (electronic).
- (iv) To increase Council *cess* collection and improve service delivery
4.0 IMPLEMENTATION STRATEGIES

Forest products such as timber, poles and charcoal contribute significantly to revenue for both Central Government and Njombe DC. Revenue is collected from wood produce collected from products' sales, forest products dealer's registrations, fines, transits pass and applications fees for wood based products. In general, revenue collected from timber/logs account for 58.7% of the total revenue of the council. This reality called for interventions to be undertaken by the Council to improve marketing of timber products. The interventions are elaborated below.

Sensitization and establishment of tree growers associations; in 2009 the Council conducted Community sensitization on formulation of tree growers associations aimed at improving tree planting, beekeeping and marketing of timber products. After complaining for many years on low prices of forest products such as timber and charcoal, tree growers agreed to form groups under supervision of the Council staff. Hence, in 2010 3 TGAs were formed including UMOJA WA WAPANDAJI MITI MATEMBWE (UWAMIMA), Nyombo and Ikuna. UWAMIMA later established the Matembwe timber market. In 2010 UWAMIMA formulated a Constitution and was registered.

Tree planting and beekeeping; after registration the group members started the real business. UWAMIMA which has 75 members (37 male and 36 female) planted trees in 30Ha out of the available 60Ha and establishment bee keeping activities. UWAMIMA owns 250 modern beehives. These activities needed adequate resources hence members were encouraged to make contributions using their small incomes and mobilized TZS 13,000,000 for the purpose of strenthenning the association and establishment of the timber market.

Developing a project proposal; various donors were sought to support establishment of timber market. Members hired a consultant who prepared a project write up which was sent to various potential funding organizations. From this initiative UWAMIMA mobilized TZS 89,143,953/= from FINLAND Government for Timber market construction. UWAMIMA went on to acquire village land (60 acres) through negotiations with the village government and the land was allocated free of charge (which would have costed UWAMIMA TZS 10,000,000/=) for the purpose of establishing timber market.

Construction of feeder roads; Njombe DC contributed technical support, including surveying and construction of feeder roads to the timber market at a cost of TZS 32,000,000/= . These feader roads have significantly improved transportation of timber and other forest produce to and from the market reducing costs substantially.



Upgraded Feeder Road to Matembwe Timber Market

Training of UWAMIMA members; Njombe DC facilitated study visits which provided opportunity for UWAMIMA members to witness and learn operations of different timber markets. This motivated tree growers to establish and operate own market. In addition, the Council facilitated UWAMIMA members to attend exhibitions like NaneNane and other markets in Mafinga DC, Mafinga TC, Makambako TC and other timber centers.

Creation of a Market as "one stop center"; forest produce business needs to follow several government regulations such as forest produce registration, transit permit (TP), Council revenue and TRA tax clearance. Tree growers now enjoy all these services at Matembwe UWAMIMA timber market. Formally it would cost the growers, buyers and sellers to travel to Njombe Town (about 68 km) to obtain permits and other legal documents. The presence of timber market has increased the number of timber growers and timber traders to Villages and Wards neighboring Matembwe timber market.

Designing of market operations; apart from market administration, the market has a system that allows for entry of products, storage under various arrangements, and exit procedures. Various fees are charged for using market facilities.

5.0 RESOURCES

Njombe DC used different types of resources to achieve the results of constructing and using the UWAMIMA Matembwe Market. Table 1 below shows all inputs used to provide results and how they were mobilized for establishment of Matembwe timber Market.

No.	Resources	Clarification	Amount
01	Financial	 Donors contribution UWAMIMA Members contribution Njombe DC infrastructure Njombe DC capacity building 	 TZS 89,143,953/= TZS 13,000,000/= TZS 32,000,000/= TZS 1,300,000/=
02	Human	 Tree Growers (UWAMIMA) had strong leadership and management while Njombe DC through natural resources department provided all required technical skills. Construction of the market involved labor from Matembwe community. 	
03	Social Capital	The Community within Matembwe village where UWAMIMA belongs supported the presence of the Market within their village	
04	Physical	Village Land	TZS 10,000,000/=
05		TOTAL	TZS 145,443,953/=

Table 1: Resources

6.0 RESULTS

Market structures provide opportunities for people living in a certain location to buy and sell different types of goods. Markets provide employment opportunities to a number of people. Producers from farms sell their agro-products in markets while consumers from households buy the agro and industrial products for domestic consumption. Njombe DC and all stakeholders have attained the objectives of Matembwe Timber Market as narrated below.

Availability of Strong association and a functioning market; UWAMIMA TGA has become a strong association able to control timber business using own efforts, administration and resources. Its presence provides excellent venue for the Council to eradicate all middle men in timber business in Matembwe Ward and direct all benefits of forest produce to timber growers and communities. The timber market

has emerged to be a center for timber collection from tree growers while the business operations in the market are open and competitive leading to stable and increasing prices of forest products.



UWAMIMA Matembwe Market Office

Provision of employment opportunities; through the establishment of timber market the association has created 6 permanent employment opportunities. There are temporary employment opportunities in which about 80 persons are employed in timber loading and offloading, treatment and transportation. In addition, the market has created non direct employment in relation to other services such as food vendors, *bodaboda* drivers and small shops operations surrounding the market place.



Shops, kiosks and self-employed youth at Matembwe Market

Increased timber production and revenue collection; Matembwe Ward has become the leading area on timber production due to UWAMIMA initiative and facilitation that has formed easy access to the timber production techniques and marketing. The market has reduced the distance from 80kms that growers used to travel to obtain reasonable selling services to about 5 to 9km. The Council has increased her forest revenue collection from TZS 540,000/ in 2016 = to TZS 950,586,000/= in 2018. Total Council revenue collection has increased from TZS 950,586,000/= in 2013 to TZS 1,671,823,012/= in 2018/2019. The Council gets TZS 231,452,850 per annum from forest produce such as timber, poles and charcoal. In addition, presence of UWAMIMA timber market has controlled evasion and avoidance of compliance to paying forest produce revenue.



Heavy Trucks loading Timber at Matembwe Market

Increased timber processing; records of 2013 show that an average estimate value of all sawn Timber produced by small scale millers in Njombe DC per month was TZS 7,055,484,250.51 that created a total

of TZS 84,466,580,000 per annum. Total volume of sawn timber produced per annum is 139,502.28m³ while the volume of poles produced is 3039.36m³ with total value of TZS 1,512,828,640 per annum. The Council collects on average a total of TZS 231,452,850 per annum from wood based products. The remaining value of about TZS 2,897,715,258/= of timber goes to local growers as income.



Matembwe Timber Market owned by UWAMIMA

Improved price information and communication; the UWAMIMA market has facilitated sharing of price information including determination of demand and supply in markets outside Njombe DC. This creates price reliability and selling decisions. In addition, the market has a strong committee which makes daily decisions on all marketing issues. The market is also a learning center; for example tree growers from Makambako TC visited the market for learning purposes. This initiative has improved environmental protection and record keeping of forest products in the Council.

7.0 SUSTAINABILITY STRATEGIES

Njombe DC and UWAMIMA have set in place various strategies to ensure that the initiative maintains and extends its results for many years and to larger part of community. These strategies include;

- (i) The market is run by UWAMIMA under democratic principles. The management team of UWAMIMA is determined to continue to identify timber buyers and tree growers to use the market for better value and best results.
- (ii) UWAMIMA has plans to facilitate and increase casual labor employment to the nearby communities and make the market a cosmopolitan business place.
- (iii) The UWAMIMA management operations are focused at making the market a Model Market for Southern Highlands.
- (iv) UWAMIMA intends to install a heavy timber processing plant and weighbridge for determining heavy trucks weight and for fair pricing.
- (v) Technical staff from Njombe DC will continue to assist UWAMIMA timber market in daily operations and build the capacity of the Market Committee on management, record keeping and decision making.

8.0 SECRET OF SUCCESS

Njombe DC and UWAMIMA attained the benefits of Matembwe Timber Market due to a number of factors. The first factor is member's willingness and commitment to contribute TZS 13,000,000 shows tree growers have unity and commitment. The second factor is commitment of the Council in provision of extension services to tree growers in a participatory manner. Thirdly, effective financial management decisions in which funds collected from the market are properly used by UWAMIMA members while Council allocates 12% of collections back to Matembwe Ward for implementation of various development projects. All in all, the natural environment, climate and the hardworking communities of Njombe DC provide major explanation for success of the timber market initiative.

MAKAMBAKO TOWN COUNCIL



PARTICIPATORY SURVEYING OF UNPLANNED SETTLEMENTS



The Experience of Maguvani Ward

1.0 INTRODUCTION

Makambako TC is one of 6 Councils in Njombe Region which was established in July 2012. Before 2012, Makambako Town used to be the Division of Makambako within Njombe DC in Iringa Region. Immediately after establishment of Njombe Region, Makambako Division was transformed into Town Council. Makambako Town is a junction located at cross roads of the Tanzania – Zambia highway and the Dar es Salaam - Songea trunk road. Makambako TC has 12 Wards, 54 Mitaa, 14 Villages and 67 Vitongoji. According to 2012 Census, Makambako TC has a population of 93,827 with a growth rate of 0.31 per year. Makambako TC has land area of 883.7 Km² of which 60% of entire area is rural and the remaining 40% is urban, while only 15% is planned.

Temperature within Makambako ranges between 17^oC in June to August and 22^oC between November and December. The environment is influenced by the winds which blow from South East creating dusty conditions. There is only one rainy season which occurs between December and March with a mean annual rainfall range of between 600mm - 1000mm per year. Makambako TC is rapidly growing due to various economic activities performed by its dwellers.



Map of Makambako TC

2.0 PROBLEM

Since 1969 Makambako was planned through cadastral surveys, however, the planned settlements were limited in size due to the fact that the population was small and the demand for plots was not high. Oldest areas which were planned are Uhuru, Sokoni, Mwembetogwa and Mjimwema which form the current Central Business District (CBD) due to availability of social services and infrastructure. The exercise to plan the oldest settlements was initiated by TAZARA as it was impossible to invest big projects on unplanned land. The number of Town Planning Drawings prepared during 1969 are 5 named Mwembetogwa, Ubena, Uhuru, Mizani and Kahawa and 4 Cadastral Surveys named Mwembetogwa, Ubena, Uhuru, Mizani and Kahawa. Unfortunately the exercise was not sustainable and resulted into development of squatter settlements due to slow speed of surveying while demand for surveyed plots kept increasing.

In 1983 Makambako Township prepared a Master Plan which was used as primary tool guiding urban development. The plan based on comprehensive planning approach which practically proved to be ineffective and incapable of guiding urban development because public involvement and participation in

the process was minimal. This contributed significantly to the rapid deterioration of environment, health and wellbeing of residents.

The growth of the town outran official capacity to control development, finance and infrastructure and regulate land use. Due to these shortfalls inherent in the master plan, there arose a need to search for a new approach to control urban development. Early 1992, a new urban planning and management (EDPM) process was introduced in Tanzania. This approach provided a mechanism through which environmental issues are identified by stakeholders in both public and private sector and on the basis of the issues formulate strategies and action plans to solve them.

In 1999, the Ministry of Land, Housing and Settlements Development observed that urban management problems facing the township required a new approach which is stakeholders-driven, focusing on the interaction between environment and development with a major emphasis on cross-sectoral and interagency coordination. Introduction of Sustainable Urban Development Programme (SUDP) provided Makambako Town an opportunity to share resources, ideas and materials with Maguvani residents towards improved and planned land use.

Traditionally, the government compensates land owners whenever there is urban planning and survey. Due to rapid population and town growth in Makambako Township, by 2005, the Government failed to fulfil its obligations in terms of planning the town and paying compensations. The result of this was poor urban planning, development of squatter and destruction of image of the town. Squatter development minimized possibilities of the government to provide infrastructure and various services like education infrastructure, playgrounds, public buildings, grave yards, open spaces, worshiping places and road services. Unplanned settlements created challenges to health and standards of living which is against the Town Planning Act as amended in 2018.

Town Planning services suffered due to lack of funds for compensation, preparing Town Planning Drawings and finally surveying. The Land Act No. 4 of 1999 part II section 1 (a) states that "to recognise that all land in Tanzania is public and vested in the president, as trustee on behalf of all". The truth however is, there is no vacant land. All land is under the control of indigenous people, most of them owning it customarily. To plan and survey land owned under customary principles compensations are necessary.

The second problem was Shortage of staff; Makambako was a Division under Njombe DC, therefore close supervision of town planning activities was poor due to distance (65km) from headquarters. This was worsened by limited number of staff overwhelmed by responsibilities. The last problem was rapid growth of the town due to its nature and location. The town has trunk roads for Dar es Salaam, Makambako Songea, Msumbiji and Dar es Salaam, Makambako, Mbeya, Zambia and South Africa with people arriving from various places for purposes of business, investments and trade.

3.0 OBJECTIVES

The main objective of Makambako TC was to improve Urban Settlements through planning and surveying of the bare land and upgrading of squatter settlements. The Council also aimed at sensitizing the community on importance of urban planning and collaborate with stakeholders in acquiring land and surveying it. Ultimately this would improve land use, settlements and investments.

4.0 IMPLEMENTATION STRATEGIES

Makamabako TC used various strategies to achieve the results. These are grouped to create a Maguvani Model of town planning and surveying. Maguvani is one of the 12 Wards in Makambako TC with 1,500 dwellers of which 427 are men, 497 are women and 576 children. The distance from Town centre is 5km. 90% of Maguvani Ward land is still bare and with low investments and population. The implementation of this initiative involved strategies narrated below.

Stakeholders' participation; urban planning and Survey activities are too expensive because of the fact that (in Tanzania) no urban planning and survey can take place without compensation. Currently there is no vacant land; every piece of land is owned either under customary or by several other means. This brings hardship to planning urban areas because the Land Act No. 4 of 1999 provides under sub sections 1(1) (f) that; to take into account that an interest in land has value and that value has taken into consideration in any transaction affecting that interest; (g) to pay full, fair and prompt compensation to any person whose right of occupancy or recognised long-standing occupation or customary use of land is revoked or otherwise interfered to their detriment by the state under this Act or is acquired under the Land acquisition Act. Adhering to this reality, between 2007 and 2015 the Council acquired land from indigenous inhabitants for construction of Maguvani Secondary School and promised to compensate inhabitants of the land occupied by the school. The Council was not able to implement this decision due to financial constraints. In 2016 the Council decided to use participatory approach in sharing costs. The Council opted to collaborate with stakeholders, customary land owners and politicians.

Stakeholders' meetings; it was necessary to convene meetings between customary land owners (community members of Maguvani Ward) and employees from land department. Councillors were also invited and one of the Councillors was Hon. Conrad Mfikwa of Maguvani Ward who championed the intiative. The purpose of the meeting was to create awareness and to educate indigenous inhabitants on the importance of urban planning in relation to land value, improved streets, passable roads and space for service institutions. Also stakeholders were informed that through acquisition of title deeds, owners could be able to acquire loans from commercial institutions.



Councillor Hon. Conrad Mfikwa and Maguvani Beneficiaries

Invoking cost sharing and acceptance of proposal; the concept of cost sharing was introduced by the Council due to the fact that the Council did not have funds for compensation, planning and surveying the land. This created a need for participatory approach in which the community would offer land, the Council would plan and survey the land and share the plots in which traditional land owner gets 60% and Council 40%. For instance, if 10 plots are generated, 6 plots (with title deeds) are for the traditional owner and 4 plots for the Council. This arrangement compensates the traditional owner and gives the Council land for various uses. Meeting minutes and attendance were taken for the purpose of

documentation and to show that the community had officially agreed and their willingness to surrender their pieces of land is genuine. After acceptance of the proposal the Council conducted the exercise of inspection to determine the land portions of each owner. This was done for the purpose of cementing the sharing of costs as per agreement on the ratio of 60% and 40% plot allocations.

Use of field work students; the Council attached field students from Morogoro Ardhi Institute to the processes of planning and surveying land at Maguvani Ward. This strategy minimized costs and time spent. Normally, surveying is too expensive in terms of hiring a consulting company, cumbersome tendering procedures and supervision challenges. The whole process was done by 12 field students who effectively participated because it was part and parcel of their studies. The work was under supervision of two Morogoro Ardhi Institute tutors. The project went smoothly without delays and took short time to complete.

Survey of plots in phases; the Council decided to divide the project into two phases in which phase one completed the survey of 291 plots covering an area of 43.14 acres. The reason to start with 291 plots was to deal with those who had complete plots according to the land portions and number of plots which allowed the 60% and 40% sharing agreement. Phase two focused on those who had one or two plots and there was no possibility for sharing plots hence they had to pay for survey costs.

5.0 RECOURSES

The Council had to collaborate with the community so as to share costs of urban planning and surveying. The community contributed in kind and willingly surrendered land. The Council contributed in terms of technical and financial support. The table below shows material financial resources.

No	Resources	Value in TZS
1	12 students and two tutors using Total Station	14,000,000/=
2	Raw materials (cement and steel bars)	4,000,000/=
3	Stationary	3,000,000/=
4	Supervision (Makambako TC)	
5	Land parcel inspection (Makambako TC)	
6	Preparation of beacons and distribution (Makambako TC)	
	TOTAL	21,000,000/=

Table 1: Resources

6.0 RESULTS

Makambako TC initiative to survey and plan the use of land in a participatory manner was successful and inspirational to the community. The initiative has resulted into several notable outputs as elaborated in paragraphs below.

Generation of 291 surveyed plots; the project managed to survey 43.14 acres owned traditionally by the community to produce 291 surveyed plots including public services plots at a cost of TZS 21,000,000/=. If this project was implemented without participatory approach, it would cost the Council TZS 380,000,000/=. Surveyed plots have beacons which are permanent survey marks, made of concrete, iron bars and include pillars and boundary posts. Beacons are used to demarcate the actual boundaries between plots.



Beacon demarcating Maguvani Secondary School boundaries

Increase in land value; land value of surveyed area has increased dramatically. Formally, the value of 4,900m² (one acre) land was TZS 500,000, immediately after planning and surveying, the value of a plot of only 500m² has risen to TZS 2,500,000. The Council is proud of this achievement because the project has empowered land owners to legally own surveyed plots and hence credibility to access loans from financial institutions.

Compensation and land disputes resolutions; the Council managed to pay compensation to community members who surrendered their land for public services like schools and Town Council Headquarters. The funds for compensation originated from the 40% share of surveyed plots. The Council sold these plots and used the funds to make compensations. In addition, through this initiative the Council managed to resolve land disputes such as double allocations in which 19 cases of double plot allocations have been resolved.

Land for public services; within Maguvani Ward, the Council has managed to acquire land for public services such as cemetery, dispensary, nursery and secondary schools. The sizes of the plots are a public building (a) 1896 m², public building (b) 1293 m², public building (c) 3740m², secondary school and nursery school 1479m², dispensary 4581 m², open space 2217m² and a cemetery 3670 m².



Planned and surveyed settlements at Maguvani Ward

Facilitation for title deeds; the Council has facilitated all plot owners to acquired title deeds which guarantee secure ownership of land, property value addition and credibility to loans. This project has raised government revenue as plot owners are paying land rent. One great result is proper and planed settlement at Maguvani area which has become a model for other unplanned Wards in Makambako Town. With regard to special groups, among the beneficiaries of the initiative are women and youth who have plots with title deeds; leading to increased empowerment and economic independence.



Maguvani Women and Youth Beneficiaries

7.0 STRATEGIES FOR SUSTAINABILITY

Makambako TC has set several strategies to ensure sustainability of urban planning. The Council has a strategic plan to collaborate with other stakeholders to plan and survey all urban wards using Maguvani Ward Model. During the verification of this case the Council was finalizing procedures to replicate the initiative at Mlowa and Majengo Wards. The strategy of the Council is to collaborate with stakeholders in all unplanned wards and use Maguvani Model.

To secure more funds for town planning and surveying, the Council plans to build an international market. The area for the market has been earmarked and land owners have been compensated. It is expected that investors from other countries will be attracted to join local investors in the market at Makambako TC.

The Council intends to survey all bare land and require all new constructions be completed after securing land plans, drawings and building permits. This is intended to eradicate squatter developments. In addition, the Council is set to improve squatter areas by upgrading, beacon installations and opening up streets and roads.

8.0 SECRET FOR SUCCESS

The success of this initiative is based on a number of secrets and innovations. Community participation in the whole process and sharing the costs between the Council and Community is one secret. This however resulted from effective sensitization and education provision on participatory urban planning and surveying. Another unique secret is inspirational leadership and governance of the Town Director (Mr Paulo Malala), paradigm flexibility of Council Chairman (Hon. Conrad H. Mfikwa) and unlimited commitment of Council Land Department Staff.

Other secrets include the signing of the agreements between the Council and land owners on sharing the surveyed plots, use of field students from Morogoro Ardhi Institute and provision of title deeds to surveyed plot owners.

KITETO DISTRICT COUNCIL



ENABLING SCHOOL-AGED CHILDREN FROM NOMADIC COMMUNITIES ATTEND PRIMARY EDUCATION



Experience of Partimbo Primary School

1.0 INTRODUCTION

Kiteto DC is one of the 8 Councils in Manyara Region, established in 1984 and located 220km away from Manyara Regional Headquarters in Babati Town. The Council borders Simanjiro DC to the North, Kilindi DC to the East, Gairo and Kongwa DCs to the South, Chamwino and Chemba DCs to the West. The Council is located between Latitudes 40⁰31' and 60⁰3' South and Longitudes 36° 15' and 37° 25' East covering an area of 16,685km² of which 3,800km² are used for agricultural activities, 12,322km² are for livestock and wildlife activities, 560km² are covered by forests and 203km² are water bodies.

The Council area is generally considered to be arid to Semi-arid. The average temperature is 22°C with hot months during July, August, September, October and November and cool months during March, April, May and June. Although there are remarkable variations in the amount of precipitation, the Council receives an average of 350mm - 700mm of rainfall. There is only one rainy season which is between the month of January and May.

According to 2012 Census, Kiteto DC has 244,669 people, out of which 120,233 are male and 124,436 are female with growth rate of 3.2% per annum. The main ethnic groups are Maasai (32%), Gogo (27%), Rangi (18 %) and Nguu (2.6%) of the total population. Other tribes constitute 20.4% of the population. The Council is divided into 7 Divisions, 23 Wards and 63 Villages.

The main occupation of the people in the Council is agriculture and livestock keeping. About 90% of the population engage in livestock keeping while 10% engage in economic activities like trade, small-scale industries and beekeeping. Kiteto DC has more livestock than any other Council in Manyara Region.

Kiteto DC has a total of 90 primary and 18 secondary schools respectively. Of the 90 primary schools, 87 are government and 3 are privately owned. The required number of teachers is 1,160, however currently there are only 695 (406 male and 289 female) teachers which implies a shortage of 40.08%. There are 467 classrooms with 14,423 and 211 teachers' houses.

Since initiation of free education program in 2016, there has been a rapid increase in student enrolment at the Council. In primary schools enrolment increased from 39,655 (19,906 boys, 19749 girls) in 2016 to 46,410 (23,516 girls, 22,894 boys) pupils in 2017; an increase by 14.6%. Statistics of November 2018 show that the number of pupils enrolled for primary education was 51,049 pupils compared to 46,410 pupils of 2017.

Partimbo Primary school is one of special schools in the Council hosting pupils with hearing disability. In addition, the school runs a special program of teaching pupils who were denied the opportunity to go to school by their parents from rural nomadic pastoral communities. Initially, the school was built as girls' primary boarding school under the assistance of the Japanese Government. However, since 2017 the school started to receive both boys and girls as boarding pupils following the Council and the District Commissioners initiatives to enable school-aged children from pastoral households attend primary school education.



Partimbo Primary School was financed by Tanzania/Japan Governments

2.0 PROBLEM

Partimbo Primary School is located within Partimbo Ward which has 8 primary schools in the 4 villages found in the Ward. The number of pupils in all the primary schools is 4,580 making it one of the Wards with highest number of pupils. Partimbo Primary School ranks third in terms of pupils enrolment in the Ward. Since 2015 there has been an increasing trend in pupils' enrolment. In 2015 the school had 110 pupils but by November 2018, the number of pupils increased to 651 pupils.

Despite the seemingly improved enrolment trends over the past four years, there are cases of pupils dropping out of school for different reasons including pregnancy and secondment. Cases of dropouts due to secondment between 2016, 2017 and 2018 were 226 (171 boys, 95 girls), 397 (224 boys, 173 girls), and 690 (203 boys, 487 girls) respectively. On the other hand, school dropouts due to pregnancies in the same period were 22 girls, 8 girls and 10 girls respectively.

			• •					
Year	Primary School			Secondary School				
	Total	In court of	Under police	Verdict	Total	In court	Under police	Verdict
	cases	law	investigation		cases	of law	investigation	
2016	22	2	12	8	85	-	61	24
2017	8	4	3	1	50	12	28	10
2018	10	3	5	2	66	20	28	6

Table 1: Pregnancy cases in Primary and Secondary Schools

The use of children as cattle herders is one of the causes for dropouts among pupils, especially male pupils. For Maasai families herding of cattle is the work of children aged from 5 years and above which is the required age for attending primary education. Partimbo is one of the largest Wards and presents a challenge to children who have to walk long distances from home to school. For example, children living at Napilukunya or Porikwapori Vitongoji had to walk a distance of not less than 20 kilometres (40 kilometres to and from) to attend primary education at Kimana or Mbigiri Primary Schools. Such a long distance of walking discouraged children to attend classes especially during rainy seasons.

3.0 OBJECTIVES

The main objective of the Kiteto DC was to improve education service and infrastructure among rural and nomadic pastoral communities. Specific objectives of the initiative were;

- (i) To increase enrolment of school-aged children at primary school level.
- (ii) To provide opportunity for children from nomadic families to enrol, get quality education and complete primary education.

(iii) To provide better learning conditions for primary school pupils by constructing classrooms, dormitories and providing beds and mattresses.

4.0 IMPLEMENTATION STRATEGIES

In 2016, the District Commissioner visited Partimbo Primary School and found that there were unused dormitories with enough space to accommodate more pupils. The District Commissioner was aware of the problem of many school aged children in different parts of the Council who did not attend primary education due to absence of schools closer to their villages, childhood marriages and being used for cattle herding. He proposed that the school be used to accommodate pupils from difficult to reach villages.

The District Commissioner with assistance of Community Development Officers (CDOs) took a leading campaign role to raise awareness to parents in all 23 Wards to enrol their children for primary education. Maasai communities were involved as these had information of households hiding schoolage children. Police Officers were involved during initial stages of taking by force school-age children to school.

The District Primary Education Officer in cooperation with the Head Teacher of Partimbo Primary School was fully involved in this program to provide logistics of handling pupils brought from villages to the school. The *Laigwanans* (traditional leaders) together with Village Councils were consulted during the start of initiative in 2016 for their permission to let the operation of taking school age children be implemented smoothly. The Council played a vital role of providing financial resources for buying 84 mattresses, repairing the dormitories for boys and girls to accommodate increasing enrolments.

The Full Council approved TZS 2,500,000/= to be spent for improving facilities such as dormitories, purchase of beds and mattresses and construction of dining hall. The DMO assisted registration of all pupils into health insurance scheme for easy provision of health services. The Ward Education Coordinator played a significant role of ensuring that teachers provide appropriate and quality education to pupils.

A number of strategies were used by Kiteto DC to change the mind-sets of the Maasai families and allow their children to quit cattle grazing activities and be transferred to dormitories in a boarding Partimbo Primary School.

- (i) Involving and soliciting consensus among village traditional leaders (*Laigwanan*) in Maasai pastoral communities.
- (ii) Identifying target households with eligible children for primary education through the use of village community members with information of households/families hiding school-age children. A total of 167 children were identified and taken to school.
- (iii) House to house visits and identification of school-age children by using prior information given by village leaders and *Laigwanans*.
- (iv) Provision of uniforms to 167 pupils who did not have uniforms at the time they were brought to school.
- (v) Establishment of parents-students register for boarding school pupils to ease communication between school administration and parents in cases of emergency.
- (vi) Enrolment of pupils to health insurance services to all school boarding pupils, CHF in particular.
- (vii) Repair of two dormitories to accommodate more pupils. Renovation was done by the Council.
- (viii) Engage stakeholders from the start of the program since 2016. These included KINNAPA who constructed a water tank for rain water harvest and the UCRT who supported the programme by

providing financial and transport facilities for operations and awareness campaigns to pastoral communities to send their children for primary school education and procurement of 25 beds and 84 mattresses.

5.0 RESOURCES

Implementation of this initiative employed a number of resources including physical, financial and human. The human resources involved the District Commissioner, Council Director, Council staff, the police force and teachers. Table 1 below summarises the financial and physical resources used during program implementation

Table 2: Financial Resources								
S/N	S/N Item Unit Quantity Unit cost TZS Total TZS							
1	Per diems	Days	15	60,000	600,000			
2	Diesel	Litres	200	2,500	500,000			
3	Mattresses	Piece	70	85,000	2,125,000			
4	Car hire	piece	1	-	3,225,000			

6.0 RESULTS

Kiteto DC has made a number of achievements since the inception of this initiative.

Improved awareness; generally there has been an improvement in the level of awareness among parents on the importance of enrolling school-age children to school. Specifically, the initiative has provided opportunity for 250 children to attend primary education. These children have been enrolled to different schools depending on closeness of the school and location from children's residences. The school has not only made studying easier for the children but also provides good and encouraging learning environment for pupils.



Pupils with hearing disability singing National Anthem using body language

Provision of meals and caretaking; Partimbo Primary School provides meals to pupils using education subventions and parents contributions. Parents' school committee is fully involved in caretaking and transforming children to acquire multi-culture life while retaining their traditions. In addition, since beef is favourite food for Maasai tribe, it is provided to pupils and serves as retention strategy.



Pupils ready for lunch

Improved school infrastructure; 2 dormitories were renovated to accommodate newly enrolled boarding school pupils from rural communities and 70 beds out of the available 180 beds were repaired. A total of 25 desks were made by Partimbo Village Government and provided to the school, rain water harvesting system installed and facilities for disabled pupils were purchased.



Renovated dormitory and Water tank for storing harvested rain water

Increase in demand for education; increased awareness amongst Maasai community members is evidenced by parents requesting to enrol their children to school. Annually, the Head Teacher receives over 20 requests for boarding pupils. Increase in awareness has resulted into increase in number of pupils from 110 pupils in 2016 to more than 651 pupils in 2018, of which 250 were brought under the initiative.

Motivated staff; due to availability of teaching and learning facilities, improved infrastructure, arrangements for pupils health insurance and effective school management, Partimbo Primary School teachers and staff are motivated and working hard to provide quality education to pupils from pastoralist families.



Motivated School Staff

7.0 STRATEGIES FOR SUSTAINABILITY

Kiteto DC experiences the problem of school age children not enrolling to schools due to dominance of rural communities particularly the nomadic pastoral communities. However, the Council continues to install mechanisms to ensure that all school-age children attend school. For sustainability of the initiative the Council will adhere to the strategies listed below.

- i. Continued effective working relationships between the school administration and the Council and school committee especially the chairperson who is a Maasai and has played a great role in communicating with pupils through Maasai language.
- ii. Establishing close communication links with all parents. A database has been created which contains particulars of all parents who have boarding pupils at Partimbo Primary School.
- iii. Continued use of elders from Maasai to instruct Maasai pupils on different issues they experience and address them jointly.
- iv. Continued awareness creation to all nomadic communities in the Council using the District Commissioners' Office and the Council.
- v. Adherence to the Education Law (Cap. 353 R.E. 2002) which provides for punitive measures (fine or imprisonment of not less than 6 months) to be taken against parents who deny their children the opportunity for primary education.
- vi. Continued mobilization of parents' contributions for the upkeep of their children while studying and continued funding by the Council.
- vii. Continued awareness creation to parents to continue providing subscriptions for their children upkeep while at the school and other pastoral community members to enrol their children for primary education.

8.0 SECRETS OF SUCCESS

Kiteto DC success and achievement in implementing this program is a result of a combination of several factors which acted in synergy. These include;

- i. Effective leadership by the District Commissioner and the Council Director supported by a strong Council primary education team, committed police force, participatory Partimbo Primary School Committee and motivated teachers.
- ii. Provision of favourite meals to pupils, especially meat as most of them are from Maasai tribe. This helps create the same food taste as home meals.
- iii. Use of parents to explain to pupils various modern issues they are supposed to observe while at school in Maasai language.
- iv. Presence of Halotel Mobile Phone Company (whose network is available throughout the Council) has simplified communication between parents and school administration.
- v. Use of force accounts as a method of procurement of food helps the school to minimise costs of services. Cash saved is used to cover other necessary.

SINGIDA MUNICIPAL COUNCIL



UPGRADING MISUNA BUS TERMINAL FOR IMPROVED SERVICES



Experience of Singida MC

1.0 INTRODUCTION

Singida MC is one of the 7 Councils of Singida Region. The Council is surrounded by Singida DC. The Council is located at Latitude 4° 40′ to 5°0′ South and Longitude $30^{0}30′$ to $34^{0}53′$ East. Singida MC has a land area of 754km² with 2 Divisions, 16 Wards, 19 Villages, 37 Mitaa and 115 Vitongoji. According to 2012 Census, Singida MC has a population of 150,379 whereas 73,484 are male and 76,895 are female. The average population growth is 4.9% with average family size of 5.

Singida MC climate is characterized by dry season from May to November and rainy season from December to April with mean annual rainfall of 660mm. Temperature ranges between 24° C and 31° C. There are no perennial rivers in the vicinity of the town but there are saline Lakes; Singidani and Kindai located in the North and South of the town respectively. These are inland drainage water bodies without outlets which offer tourism attraction. The Council has heavy storms and winds that offer comparative advantages for tapping electric wind generation.

The land consists of granite rocks which provide loamy sandy soils while woods and forests cover only a small proportion of town's area. The vegetation comprises of reserved natural and man- made forests that serve as windbreakers and living museums. Singida MC is renowned for production of sunflower cooking oil. Major economic activities performed by residents are agriculture, livestock keeping, horticulture, trading, employment in public sector and small scale industries. The per capital income of Singida MC is TZS 350,294. The Council provides a hub with roads leading to Dodoma, Arusha, Kigoma and Mwanza, linking North Zone, Lake Zone and Central Zone.

2.0 PROBLEM

Since 2010 the Council had been facing financial difficulties due to limited revenue collections of an average of TZS 0.7 billion from own source revenue which was not sufficient to cover recurrent and development expenditure such as building of schools, dispensaries and improved road infrastructure. This led to poor provision of social-economic services which were reflected by bad roads, poor health facilities, insufficient desks and classrooms and inadequate potable water especially in suburbs. The Council mostly depended on subventions from the Central Government to facilitate social-economic activities. However, the remitted funds were limited to cover all the requirements and disbursed late.

The Council revenue sources were mainly dominated by property tax which contributed 35% of the total own source revenue, service levy 15%, central market operations 9%, billboards 11%, land rent refund 8%, villages auctions 5% and other miscellaneous sources including the bus stand which contributed only 17%. Due to low own source revenue obtained, the Council had only one option; to wait for the central government or donor funds to implement development projects. This triggered the need for the Council to improve its revenue sources so as to increase the provision of social economic services.

Before upgrading of Misuna Bus Stand, collections from the stand were generally too low; in fact the collections were as low as TZS 350,000 per day. The Council could not collect much due to the fact that the stand infrastructure was poor, revenue collection infrastructure and methods were weak, lack of space for bus parking, lack of modern toilets and kiosks. Similarly, the bus stand had no concrete pavements, tarmac roads and improved sheds culminating into dusts and mud during rain seasons. The bus stand also did not have fencing infrastructure to make users pay for the services effectively.



Old Singida Bus stand

3.0 OBJECTIVES

In Tanzania, a bus terminal is an important component of transport system serving as a point of passenger and passenger companions' concentration, point of passenger dispersion, center of loading and unloading passengers and point of modal interchange. A bus terminal in an urban area accommodates waiting passengers and vehicles and provides facilities and amenities for passengers, bus crew, small business persons and vendors. Of great importance, a bus terminal is a place of documentation of the journey (ticketing) which provides reliable and credible information system while serving as a component that integrates various systems of transportation and exchange. Uncommon to other countries, a bus terminal is also a major source of revenue in most of the urban centers in Tanzania. Tanzanians enjoy visiting bus terminals and stands as they are also used as small business centers full of cafes, restaurants, shops and kiosks.

Concentrating on the broad usage of a bus terminal Singida MC decided to upgrade the Misuna area into a modern bus terminal. The main objective of this initiative was to construct a modern bus terminal to provide quality bus exchange services and enhance revenue collection for improved municipal service delivery. Specifically, the initiative intended to; improve and create new revenue sources by construction of a new and modern bus stand with facilities and amenities attractive to passengers and the municipal inhabitants.

4.0 IMPLEMENTATION STRATEGIES

Globally, a bus terminal is an essential component of urban transport facilities which defines the beginning (origin) or end (terminating) of the lines for the transportation system. It normally requires a size-able land in a strategic part of an urban area. A well planned or managed bus-terminal acts as catalyst to the social and economic development of the surrounding areas. However, poorly planned and sited terminal for buses may generate traffic problems as well as deteriorating the quality of life of the affected surroundings.

In Tanzania, bus terminals are a significant element in the operation of inter-town bus services. Their design and location affect the efficiency of a transport system, and its impact on other road users. Most of the bus terminals are regarded more as landmarks than as utilities. Often there are large terminals in the central area, with smaller ones at the outer ends of the routes. There may also be intermediate terminal, especially at points where many passengers interchange between different bus routes, although most intermediate passengers on urban services board and alight at roadside bus stops. Bus terminals are also used for parking between journeys for buses which are away from their home bases. To harness the benefits of a bus terminal Singida MC embarked into various strategies described below.

Acquiring of land at Misuna Area; the Council moved on with the improvement of the bus stand including searching for a new area with enough space to accommodate all the services. The process started by organizing several meetings in various Wards to search for the area to build a new bus stand and luckily during the meeting with citizens in Misuna Ward, it was agreed that there was an open space which the Council would acquire and develop it to a modern bus terminal. The citizens around Misuna area also agreed to contribute their land around the open space to provide adequate land area for constructing a bus terminal. In exchange for land provided, Misuna Ward citizens were guaranteed with priorities in economic benefits emanating from constructed bus terminal which include operations of kiosks, shops and restaurants, employment to casual laborers and securing of local contracts to operate various services.

Organizing meetings with business operators; after obtaining the land for a bus terminal the Council organized meetings with the business men and women who were located at the old bus stand to build standard kiosks, shops, restaurants and toilets around Misuna bus terminal using own costs so that they could run their businesses in the area and improve the environment for business and economic activities. The business community participated in the construction under build-operate-transfer arrangements and 20 kiosks were built under the supervision of the Council using standard specifications. The kiosks are used for issuing bus tickets, restaurant services as well as general purposes kiosks.



Kiosks built by businessmen

Central Government support; the CG, through Urban Local Government Strengthening Support Program (ULGSP) had entered into an agreement with the World Bank to improve urban infrastructure in 18 Municipalities and Cities that included Singida MC (others were Morogoro, Shinyanga, Musoma, Tabora, Bukoba, Moshi, Lindi, Songea, Iringa and Sumbawanga and Town Councils of Geita, Bariadi, Babati, Korogwe, Kibaha, Njombe and Mpanda). ULGSP project intended to improve institutional performance, upgrade urban planning systems and increase own source revenues. Singida MC utilized this opportunity effectively to construct and use the Misuna Bus Terminal. The CG remitted TZS 8billion to Singida MC ULGSP projects of which TZS 2.7billion was set aside for the development of the bus terminal area including installation of pavements, walkways, waiting stations, streets lights, public toilets, revenue collections points as well as the fence around bus terminal area.

Advertisement of construction tender, feasibility study and approval; between 2012 and 2014 procurement procedures were administered. The Council used a competitive method of tendering to acquire the consultants and engineers. The feasibility study was done by Meta consultancy that provided environmental impact assessment as well as the drawings and BOQs of the Misuna Bus Terminal. The feasibility report was later introduced to the members of the finance committee and approved by the Full Council.

Construction process; the actual building of the bus terminal was implemented by a contractor named Hari Singh and Sons limited while the Luptan company was the consultant. The Council adopted a participatory approach in which casual laborers were employed from Misuna Ward as per the agreement reached during acquiring of land. The Terminal was completed and the contractor handed it over on 1st July 2017.



New bus Terminal at Misuna Area

5.0 RESOURCES

Through collaboration between the CG and Singida MC, the Misuna area was upgraded into a modern bus terminal expected to provide quality bus exchange services and enhance revenue collection for improved municipal service delivery. The Council used various resources. The financial resources used in this initiative are described in table 1.

S/N	Activity	Amount (TZS)	Fund source				
1.	Building of Twenty Kiosks	157,000,000	Business operators				
2.	Building of revenue collection points, fence, installation of paving's., walk ways, street lights	2,700,000,000	World bank loan				

Table 1: Financial Resources

Human resources included the Council staff who supervised the construction process, the CMT, Councilors and the Regional Commissioner who championed this initiative. The contract for the construction of the bus terminal was only one year from March 2016 but it was later extended to July 2017. The contractor handed over on July 2017.

6.0 RESULTS

Singida MC has realized several achievements resulting from strong collaboration with the CG through the ULGSP. Major results are narrated below.

Functioning bus terminal; the Council has a tidy and upgraded modern bus stand operating with 20 kiosks, area for buses and other cars, toilets, revenue collection points and police post.

Increased revenue collection; the Council has realized revenue collection increase by 300% as a result of operations of the bus terminal. Before the initiative, revenue collected in the bus stand was only TZS

350,000/= per day equivalent to TZS 125,750,000 per year but currently (2019) the collections reach an average of TZS 1,300,000/= per day equivalent to TZS 474,500,000/= per year. The increase in revenue originate mainly from the increase in the number of busses passing and parking at Misuna bus terminal and entrance charges/fees per person (TZS 200 each) as well as increased fees for social services such as restaurants, toilets and washrooms.

Introduction of electronic system for revenue collection; the Council introduced electronic system i.e. the Local Government Revenue Collection Information System (LGRCIS) which is an online collection system used to capture all revenue collected by revenue collection agents. The Misuna bus terminal as important revenue collection point uses this system to collect and report revenues.

Employment opportunities; Misuna bus terminal has created employment opportunities as many small business operators sale their products inside and around the terminal. The terminal accommodates both formal and informal businesses. The Council employed 18 revenue collectors at the bus terminal, 11 security guards and 10 cleaners.

Improving services delivery; Singida MC has built its capacity to improve and establish service delivery institutions as a result of improved revenue collection that meets its recurrent and development expenditure. The Misuna bus terminal in one of the stable sources of revenue for the Council. For example the revenues have been used to upgrade health and education service facilities.



Walk ways constructed in Sokoine Health center

Renovation of school infrastructure; the Council has been able to use the fund collected from the bus terminal to renovate Mtamaa primary school infrastructure such as classrooms and making of desks for pupils.



Renovated classrooms at Mtamaa Primary School

Improved economic activities; economic activities around Misuna bus terminal provide employment opportunities to various stakeholders in and around the bus terminal area. It has provided employment to more than 100 bus agents, more than 20 luggage carriers and food vendors. Misuna area has witnessed increase in Guest Houses which provide employment to citizens and service levy to the Council.

Reinforcing revenue collection; the Council is developing other revenue sources through the use of revenue collected from the bus terminal. These include installation of wire fence in the Singida Onion Market to protect revenue collected in the great onion market at Misuna area. Additionally, revenue collected from the terminal has facilitated improvement of the Council auction areas in Mtamaa and Manga Wards for increasing revenue collection from those areas.

7.0 SUSTAINABILITY STRATEGIES

Singida MC has established measures to ensure that the initiatives are sustainable and revenue collection continues to increase and enhance the Council capacity to provide social-economic services to the community sustainably. These measures include;

Sustainable use of LGRCIS; receipts are generated from the system and produced by Point of Sales (POS) machines which are operated by the revenue collectors in different sites. This enables the Council to determine all revenue collection transactions. In addition, the Council plans to install CCTV cameras to monitor and protect the revenues obtained from the terminal and onion market.



POS machine

Lastly, Singida MC plans to construct a shopping complex within Misuna terminal which will provide space for mini-supermarkets, shops, restaurants, washrooms and waiting bays. This will generate more revenues to the Council.

8.0 SECRET OF SUCCESS

Singida MC has succeeded in revenue enhancement and service delivery initiative. This is a result of strong relationship with the Central Government through the grand ULGSP, use of participatory approaches, teamwork amongst CMT members and effective collaboration with the Regional Commissioner's Office. Lastly, availability of open space at Misuna area and readiness of the citizens to offer private land for bus terminal provide great secret to this initiative.

IRAMBA DISTRICT COUNCIL



IMPROVEMENT OF MATERNAL HEALTH SERVICES



Experience of Iramba DC

1.0 INTRODUCTION

Iramba DC is one of the seven Councils in Singida Region located between Latitudes 4[°] to 4[°].3'South and Longitudes 34[°] to 35° East. The Council borders Meatu DC to the North, Mkalama DC to the East, Singida DC to the South and Igunga DC to the West. Altitude ranges from 1,000m to 1,500m above sea level.

According to 2012 Census, Iramba DC has a population of 236,282, where 116,997 are male and 119,285 are female with an average population density of 52 persons per km². Main indigenous ethnic groups are the Nyiramba and Sukuma. Others who form significant minorities are Taturu and Barbaig. The Council is divided into 4 Divisions, 20 Wards, 70 Villages and 392 Vitongoji. Main economic activities include agriculture, animal husbandry, mining, fishing and lumbering. Main food crops are maize, sorghum, paddy, beans, cassava and sweet potatoes while cash crops are sunflower, cotton onions, and groundnuts. Livestock keeping includes cattle, goats, sheep, donkeys and chicken.

Iramba DC managed to improve health facilities through Health Sector Reform Programme of which focused on encouraging private sector investments, granting autonomy to health facilities, giving priority to preventive services and encouraging community participation in financing of their own health care services including cost sharing, establishment of community health funds in various villages and expanding the catchments area of the National Health Insurance Fund. The development of the health sector in Iramba DC to a large extent is influenced by public sector participation. There are 41 health facilities which include 1 hospital, 3 health centers, and 37 dispensaries (31 public and 6 private).

2.0 PROBLEM

In 2015, Iramba DC had maternal death rate of 100 in every 100,000 livebirths. This problem was caused by a number of reasons including poor health education, poor referral system and communication from health centers and dispensaries to District Hospital. Expecting mothers depended on traditional birth attendants for deliveries instead of formal health services. Between 2013 and 2016, 1,322 cases of women who gave birth under assistance of traditional birth attendants were reported and some death cases of mothers and infants were reported. There was poor referral system and communication from health centers and dispensaries to the District Hospital and lack of ambulance services for term pregnant mothers from peripheral villages to health facilities. In addition, health workers had no mobile phones and related airtimes to facilitate communication while majority of health workers were not fully oriented on safe delivery skills.

3.0 OBJECTIVE

LGAs are entrusted with role of services delivery. They are responsible to ensure proper education, access to potable water, electricity and health services. After realizing the trend of maternal deaths the Council set an objective to improve health services and eliminate maternal deaths. Specifically, the initiative intended to;

- (i) Ensure availability of drugs and medical equipment.
- (ii) Increase and improve knowledge and skills to health workers.
- (iii) Rehabilitate maternal waiting home at the district hospital.
- (iv) Provide health education to expecting mothers.
- (v) Improve communication and referral system between dispensaries, health centers and District Hospital.

4.0 IMPLEMENTATION STRATEGIES

The Council in collaboration with stakeholders designed several strategies to achieve the objectives. These include;

Formulation of a task force; in collaboration with various stakeholder such as CMT, SEMA, WORLD VISON, AMREF, Marie Stopes, and Engender Health the Council established a task force to oversee health problems and set strategies to solve them. Several meetings were held for which it was decided to intervene through investing on improving hospital infrastructure, provision of health education to and mothers and improve referral system from dispensaries and health centers to the district hospital.

Rehabilitation of maternity waiting home building; the building within hospital premises was dilapidated and lacked essential facilities like beds and mattress which called for improvements. Rehabilitation was jointly implemented by SEMA and the Council. SEMA provided funds for rehabilitation and equipment while the Council provided expertise and supervision.

Improvement of referral system; In order to improve the referral system the Council provided two ambulances stationed at 2 Health Centers in Mgongo and Ndago and adequate budget for fuel to attend emergencies. Likewise, the Council improved communication system by providing mobile phones and airtime to 33 officer in-charges of health facilities for facilitating communication with District Hospital during referral cases. Contact numbers of Council Health Management Team (CHMT) were availed to health facility in-charges for consultation and advice.

Assigning matron/patron for each health facility; each CHMT member was assigned to supervise at least one health facility. Their role was to provide advice, assist in identifying problems and seek solution on all matters related to service provision at the facility and report complex issues beyond the capacity of health facility to CHMT for deliberations.

Awareness creation and maternal health education; Community health workers and medical staff conducted awareness to community on safe deliveries. Traditional birth attendants were oriented on safe delivery practices and advised not to attend term pregnant mothers, instead to escort them to health facilities. Nurses in health facilities were trained on Basic Emergency Obstetric and Neonatal Care (BEMOC) and refresher courses on how to prevent maternal deaths by using pantographs during delivery and care to mothers and infants after birth.

Purchase of drugs and medical equipment; the Council ensured drugs and medical equipment including delivery kits, delivery beds and resuscitation kits are in place to provide service to pregnant mothers and infants. The equipment were purchased and distributed to all health centers and few dispensaries.

5.0 RESOURCES

Implementation of this initiative was realized after utilizing several resources. Financial resources amounting to TZS 323,750,000 were spent for rehabilitation of maternal waiting home building and purchase of equipment and medical supplies as presented in table 1 below. Similarly, 33 Health facilities were provided with mobile phones and airtime worth TZS 30,000 per month (TZS 11,880,000/= per year). Human Resources included members of CHMT, Nurses and community health workers who provided education and awareness to the community on maternal health care. Social Capital included collaboration between the Council and NGOs (SEMA, Engender Health, MARIE STOPES, WORLD VISON and AMREF) which deal with health issues.

NA	ACTIVITY	AMOUNT TZS	SOURCE	YEAR
1	Rehabilitation of maternal waiting home building	45,000,000	Water AID/SEMA	2015/16
2	Training of TBAs, Community health workers and nurses	14,125,000	MARIE STOPES	2016
		18,350,000	WORLD VISION	
3	Awareness creation to community	6,750,000	The Council	2016
	Provision of medical equipment and supplies;			
4	Delivery kits	56,000,000	GOVERNMENT	2016/2017
5	Delivery beds	87,500,000	AMREF	
6	Resuscitation kits	96,000,000		
	Total	323,750,000		

Table 1: Financial Resources

6.0 RESULTS

The implementation of this initiative led to the following results;

(i) Iramba DC successfully completed rehabilitation of maternal waiting home building and provision of facilities and medical equipment. The waiting home is serving expecting mothers and is located adjacent to Maternity Ward. The waiting home has beds, bedsheets and kitchen facility to allow mothers cook their meals.



Expecting mothers in a waiting home

- (ii) Health education is regularly provided; health attendants provide health education in all 20 Wards.
- (iii) Increased motivation of health facility staff as a result of improved communication in which airtime allowance is provided on monthly basis.
- (iv) Increased number of women attending health centers for reproductive health services. For example, number of expecting mothers attending Kiomboi District Hospital waiting home increased from 28 in year 2016 to 54 in 2018.
- (v) Maternal deaths have been reduced from 100/100,000 in 2017 to 39/100,000 in 2018.
- (vi) The number of expecting mothers attended by traditional birth attendants has decreased from 1,056 in 2013 to 7 in 2018.
- (vii) Referral system has improved due to availability of ambulance services in health facilities and improved communication between dispensaries, health centers and district hospital.
- (viii) Refresher courses to heath staff are constantly provided by the Council in collaboration with USAID and World Vision.
- (ix) Enrolment in CHF has increased due to awareness creation to community members. More than 58% of households in Iramba DC have joined the CHF and enjoy insured health services.

7.0 SUSTAINABILITY STRATEGIES

For sustainability purposes, the Council and stakeholders continue to allocate budget for improvement of health services in the Council. Other strategies include;

- (i) The Council continues to facilitate health centers and dispensaries with airtime to officer incharges for communication during emergencies and other related issues.
- (ii) Continued repair and maintenance of the ambulances and purchase of adequate fuel to ensure sustainable operation of ambulance services.
- (iii) The Council continues to collaborate and network with NGOs dealing with health issues for improvement health services.
- (iv) Continued provision of refresher courses to nurses.
- (v) The Council plans to construct and rehabilitate 2 Health facilities at Ndago and Kinampanda to reduce queues at the district hospital.

8.0 SECRET OF SUCCESS

The secrets for success of this initiative are centered to the community readiness and willingness to receive health education and use knowledge acquired for change. Commitment of the Council Management team to allocate resources for rehabilitation of health facilities, provision of ambulance and mobile phones with airtime every month is another secret of success. Presence of NGOs which support health services and their willingness to collaborate with the Council contributed to success of this initiative. Refresher courses to community health workers improved motivation and performance in service provision. Allocation of matrons and patrons to each health facility facilitated early identification of complex issues and immediate mitigation measures.

SHINYANGA REGIONAL SECRETARIAT



REDUCTION OF MATERNAL AND CHILD DEATHS



Experience of Shinyanga RS

1.0 INTRODUCTION

Shinyanga Region is located between Latitude 3°15[°] and 4°30[°] South and between Longitudes 31° 30" and 34° 15" East. It occupies an area of 18,555 km². According to 2012 Census the population of the Region is 1,534,808 with population growth rate of 2.1% per year. The main indigenous ethnic groups are the Sukuma, Nyamwezi and Nyiramba. Others, who form the minorities are the Taturu and Sumbwa.

The Region is divided into three Districts namely Kahama, Kishapu and Shinyanga with six Local Government Authorities named as Shinyanga MC, Kahama TC, Kishapu DC, Shinyanga DC, Msalala DC and Ushetu DC. The Region has 15 Divisions, 130 Wards, 511 Villages, 87 Mitaa and 2,760 Vitongoji.



Map of Shinyanga Region

The main economic activities are farming and livestock keeping. Other activities are mining, trade and businesses of different types. The per capital income of the Region is TZS 1,596,344. The Regional population is divided into urban and rural despite of the fact that majority of people are farmers and livestock keepers. It is estimated that more than 1.3 million of the population in the Region live in rural areas.

The Region has 222 health facilities among which 194 are dispensaries, 22 are health centres and 6 are hospitals (3 Government and 3 private owned). Every District has one Government Hospital. There is ongoing construction of hospitals at Mwawaza in Shinyanga MC, Ushetu DC and Shinyanga DC.

2.0 PROBLEM

Shinyanga Regional Referral Hospital (RRH) experienced several deaths of expecting mothers and children mainly due to inadequate supply of safe blood for transfusion during emergency cases. This situation led to high maternal deaths of 74 in 2016 and 73 in 2017 as Shinyanga RRH had no blood bank for immediate transfusion. In many cases the hospital requested relatives of patients to donate blood for their patients. Sometime relatives had no compatible blood groups to the patients. This situation, in some instances, led to delayed transfusion and resulted into deaths. The process of getting blood, testing and conducting transfusion took a long time (three to five days). Expecting mothers suffering from prolonged haemorrhage as well as those who delivered through surgery needed immediate blood transfusion which was not available promptly. Blood shortages in general caused deaths of women with complications of pregnancy and childbirth, children with severe life-threatening anaemia and patients with trauma.

Several death cases of expecting mothers with risk indicators during gestation period were caused by long distances from homes to health facilities. Taking Mwakitolyo village as an example; the village is located 120km from Shinyanga Town. Sometimes expecting mothers with pregnancy complications acquired associated diseases such as fistula during delivering due to delays because of long distances to

the nearest health facility. Common causes of maternal pregnancy complications include obstetrical haemorrhage; inter perpartum infections, eclampsia and obstructed labour. To a greater part, most of these deaths could be prevented by timely access to emergency health facility where qualified personnel and appropriate equipment to assist smooth delivery are found.

In addition, insufficient supply of intravenous fluid for infusion perpetuated dehydration to patients which led risk of deaths. Shinyanga RRH required 240 litres of intravenous infusion fluid every day which under normal circumstances are bought from Medical Stores Department (MSD) of which several occasions are found out of stock.

3.0 OBJECTIVE

The main objective of the RS and the RHMT was to improve health services by reducing both maternal and child mortality. Specifically the intervention was intended to;

- (i) Reduce death of both pregnant and infants caused by lack of safe blood by increasing availability of safe blood.
- (ii) Reduce death cases of expecting mothers with risk indicators during gestation period caused by travelling long distances from homes to health facilities by constructing maternity waiting homes known as "mama ngojea".
- (iii) Reduce deaths caused by lack of intravenous fluid for infusion through increasing availability of fluid for infusion by introducing a processing plant.

4.0 IMPLEMENTATION STRATEGIES

Identification of problem; Shinyanga RS management meetings which are convened weekly to discuss activities conducted by the RS, noted the alarming maternal and infant deaths which were caused by insufficient supply of safe blood at the RRH. Maternal deaths stood at 74 and 73 in 2016 and 2017 respectively. The report also elaborated that other factors which raised number of deaths for expecting mothers and infants include long distances to health facilities and insufficient supply of intravenous fluid for infusion.

RS deliberations; in 2017, the RS management session chaired by Albert G. Msovela, the RAS, deliberated on solutions to mitigate these short falls and limitations. The main issue was to secure support from various stakeholders on how to rectify the problems. The RS wrote letters to different stakeholders requesting for support. Among the stakeholders approached were United Nations Population Fund (UNFPA), Touch Foundation, Saint Luke and others.

Establishment of blood bank; UNFPA indicated intention to construct a building for storing safe blood. The Government was requested to show her commitment on procuring equipment for storage and safety of blood donated since blood bank involves screening for blood borne diseases like HIV, syphilis and viral hepatitis. In 2016/2017, cost analysis for constructing the building was done and procurement of the required equipment was established at the cost of TZS 33,435,000. After accruing of funds, tendering procedures were followed and a contractor M/S Fau Construction Company Limited was awarded. The required blood bank equipment was purchased by RS. The blood bank has the capacity of collecting and storing 1,401 units in a year.



Blood Bank Building within Shinyanga RRH

Safety of donated blood; the primary responsibility of blood bank is to provide a safe, sufficient and timely supply of blood and blood components to those in need. In fulfilling this responsibility the RRH ensures that the act of blood donation is safe and causes no harm to the donor and recipient. It has built and maintained a pool of safe, voluntary non-remunerated blood donors and takes all necessary steps to ensure that the donated blood has no risks of any infection that could be transmitted through transfusion. To ensure availability of safe blood, selection of healthy donors is necessary. In order to ensure this, blood bank follows these basic principles:

- (i) Blood is accepted only from voluntary, non-remunerated, low risk and healthy blood donors.
- (ii) Efforts are directed towards encouraging and retaining adequate numbers of healthy donors.
- (iii) Donors are appropriately recognized and appreciated for their continuous donations.

Blood donation campaigns; donor motivation was done by RRH staff using various communication methods to attract prospective donors to the blood bank donation camp. First time donors were encouraged to be regular donors. Community organizations, civil societies and NGOs played a critical role in awareness creation on blood donation.

Establishment of maternity waiting home (*Mama Ngojea*); to reduce death cases of expecting mothers with risk indicators during gestation period, the RS management deliberated to construct a *mama ngojea* building close to RRH. This idea was supported by Touch Foundation. The foundation donated about TZS 70,000,000 which was enough for renovation of the building and construction of additional rooms. Construction works were carried out under supervision of Touch Foundation.



Mama Ngojea Buildings

Providing *Mama Ngojea* with accommodation facilities; after completion of the construction work hospital beds, mattresses and mosquito nets were provided. The unit was also provided with mobile phone serviced by Vodacom Tanzania Limited. An NGO (Pathfinder), financed the costs of mobile phone calls. *Mama Ngojea* has the capacity of accommodating 40 expecting mothers at a time.

Care for expecting mothers; expecting mothers are advised to attend regular check at the clinics. Women with high prone to pregnancy risk indicators are identified and allowed to utilize maternity

waiting home. The waiting home is intended for not only women identified as high risk but also women who live far from the health facilities or face other geographic barriers. Any expecting mother is eligible to stay in the waiting home, but priority is given to women from rural areas and women with risk factors of complications such as with age below 16 years or more than 40 years, first birth and more than six births. The supervisors at the waiting home communicate with the rural health facilities to identify the earmarked expecting mothers who are at risk. The Ambulances or community taxes are used to collect the identified women from rural areas to the waiting home.

Establishment of a factory for manufacturing infusion fluid; there was a need to reduce deaths caused by inadequate intravenous fluid for infusion by increasing availability. The hospital management prepared a proposal of establishing an intravenous infusion factory the RRH. The idea was supported by Saint Luke institution which engages in maternal and infant health. Saint Luke institution provided the technology, supply of appropriate equipment, installation, assessment and making follow up of the efficiency of the equipment after installation. The Government provided funds amounting TZS 97,000,000 for this project. The area was identified within the RRH premises. After completion of the factory, Saint Luke trained staff for running the factory. The factory has the capacity to produce 120 litres of infusion fluid per day. The building was rehabilitated and partitioned to suit the requirements for the factory. The rehabilitation was supervised by the Regional Civil Engineer.



Intravenous Infusion fluid processing plant

5.0 RESOURCES

Resources for improvement of health services were obtained from Government as well as from other stakeholders. Financial resources for establishing safe blood unit was obtained from UNFPA and Government. Human resources for keeping the unit operational is provided by trained Government employees. For the case of maternity waiting home, construction of the building used funds obtained from Touch Foundation. Supply of accommodation facilities used funds solicited from the Government. The day to day supervision and follow up of expecting mothers is done by government staff from Shinyanga RRH. Communication is maintained by Pathfinder International in collaboration with RHMT, RRHMT and CHMT of Shinyanga MC.

Installation of intravenous infusion fluid processing unit was done by Saint Luke institution. Monitoring of quality of water produced is done by Saint Luke. However the day to day monitoring of the plant is done by trained health sector Government staff.

6.0 RESULTS

Availability of blood bank; the blood bank building and storage facilities at Shinyanga RRH is in place and operational. The bank collects about 1,401 blood units per year which is around 39% of the blood required at the hospital (3,600 blood units per year).

Functioning maternity waiting home (*Mama Ngojea*); maternity waiting home started working since February 2016, where more than 40 expecting mothers can be accommodated at a time. A total of 181 expecting mothers were admitted into Mama Ngojea in 2016, 163 in 2017 and 114 in 2018. Expecting mothers who are identified with complications at antenatal clinics and those who are far from health facilities are referred to maternity waiting home. The *Mama Ngojea* has communication facilities and record keeping gadgets such as IPad, mobile phone, computer and registers.

Reduced maternal deaths; Shinyanga RS has succeeded in reducing maternal deaths from 74 in 2016 to 54 in 2018. Availability of maternity waiting home has contributed to reduction of maternal deaths as most of women are able to access services easily and timely.

Stable supply of Intravenous fluid; supply of Intravenous fluid for infusion has been stabilized since the factory produces 120 litres per day compared to 240 litres required. The cost for buying intravenous fluid for infusion has been reduced from TZS 1,500 which is the actual price of 500ml at the price of Medical Stores Department to TZS 676 which is the cost of producing 500ml of dextrose contained water.

7.0 SUSTAINABILITY STRATEGIES

Shinyanga RS and the RRH have set a number of strategies to ensure the initiative is sustainable. These strategies include;

- (i) Intensifying sensitization and motivation of the community to make voluntary blood donation.
- (ii) Establishment of blood donation fund by mobilizing community to contribute voluntarily.
- (iii) Ensuring that budget for blood donation activities is incorporated Regional and Council plans.
- (iv) Introduction of blood collection teams at Regional and Council levels.
- (v) Involvement of various stakeholders to maintain blood bank by contributing funds or donating blood.
- (vi) Reallocation of blood units from one hospital to another to minimize outdating and wastage and provide prompt response to a range of unexpected needs.
- (vii) Provision of incentives to the blood collection teams.
- (viii) Training of expecting mothers and their partners on nutritional requirements during gestation period to combat anaemia and supply mosquitoes nets to reduce malaria cases.
- (ix) Sustaining of *Mama Ngojea* to minimize death risks.
- (x) The RS and RRH management will ensure sterilization room is maintained as per instructions and standards maintain technical experts necessary for the operation and maintenance of the factory and ensure compliance to relevant Legislation and Regulations.

8.0 SECRET OF SUCCESS

Shinyanga RS and the RRH management achieved the initiative of establishing a blood bank, factory for producing transfusion fluid and construction of a posh maternity waiting home due to creativity of the RS management team, effective coordination between the RS, RRH, RHMT and CHMT and effective collaboration with local and international stakeholders.
KONDOA TOWN COUNCIL



PARTICIPATORY SOLID WASTE MANAGEMENT



Experience of Kondoa TC

1.0 INTRODUCTION

Kondoa TC is among 8 Councils of Dodoma Region established in July, 2015. The Council is located between Latitude 4°5 4'05 South and Longitude 35°46'60 East and has an area of 936.13km². The Council borders Chemba DC to the South and Kondoa DC to the North, West and East. The Town is characterized by semi-arid and sub-humid conditions. Temperature ranges between 16°C and 29°C while the mean annual rainfall varies between 600mm and 900mm. There are two marked seasons namely dry season (June to November) and wet season (December-May). According to 2012 Census, population is 59,022 whereas 29,177 are female and 29,845 male with average household size of 4.8. The Council has 2 Divisions, 8 Wards, 36 Mitaa and 89 Vitongoji.



Map of Kondoa TC

The socio-economic activities are determined location of Wards and mobility of the residents at the Central Business Districts (CBD). Residents who reside in the urban area are businessmen and entrepreneurs while those who reside in the rural area grow cash crops and keeps animals. In the urban area economic activities include markets, carpentry, shops, sunflower processing factories, welding, garages, hotels, guest houses and brick making. Most of the people are entrepreneurs and 0.2 % of town dwellers are employed in the public and private institutions. In the peripheral Wards people engage in cash crop production for subsistence and commercial purpose where maize, sunflower, millets, cassava and sorghum are cultivated. Livestock include cattle, goats and donkeys.

2.0 PROBLEM

The Council experienced increase in production of solid waste from 47.45T to 59.22T per day as a result of increase in population from 28,337 in 2002 to 59,022 in 2012. The solid waste management was not participatory. The Town had 12 collection points at the Market, Bus stand, Darajani, Iboni, Nyalashi, Ghorofani and Uwanja wa Puma while the remaining areas practiced crude dumping. The available collection points were not capable to accommodate all waste produced by the households, factories, shops, guest houses and other sources. Residents littered their surroundings which led to environmental pollution causing different types of disease such as cholera, typhoid, stomach ache, dysentery and diarrhoea. Table 1 below shows incidences of diseases.

No	Disease	2016	2017	2018
1	Cholera	46	0	0
2	Typhoid	123	23	10
3	Stomach ache	121	10	0
4	Dysentery	97	21	0
5	Diarrhoea	65	0	0

Apart from diseases, spread of solid waste spoiled the aesthetic value of the town due to littering at collection points. Roads were blocked because poor collection and transportation of solid waste. Some households collected solid waste in buckets and sucks and threw them into rain water drainage system leading to blockages and floods. The Council incurred TZS 11, 940,000 per month for operation and maintenance of old trucks, buying fuel, paying laborers and paying drivers for solid waste collection. Photos below indicate the situation before intervention.



Spread of solid waste in Mnarani area and Council old truck

3.0 OBJECTIVE

In June, 2017 Kondoa TC set an objective of improving solid waste management to reduce outbreak of communicable diseases that originated from poor solid waste management by 100% in 2018. Specifically, the initiative intended to;

- (i) Decentralize solid waste management activities at Mtaa level by 100% by June, 2018.
- (ii) Create awareness to community on solid waste management in 36 Mitaa by December, 2018.
- (iii) Establish Environmental Committees for solid waste management by June, 2017.
- (iv) Increase Council own source revenues from solid waste collection fee by June, 2017.

4.0 IMPLEMENTATION STRATEGIES

Kondoa TC initiative on Solid waste management is in line with Tanzania-Environmental Management Act of 2004 and National Environment Policy which provide for legal and institutional framework for sustainable management of the environment, outline the roles of LGAs in environment management including solid waste management. In order to fulfill the requirement of National Environment Policy and Legislation of 2004 on solid waste management, Kondoa TC implemented the following strategies;

Decision making; in September 2016, the Environment and Sanitation Officer introduced the idea of decentralizing solid waste management to community in the CMT meeting. The purpose was to discuss and come up with a system of handling solid waste without involving the Council on operation costs. The

management agreed and concluded that the idea was good and recommended the idea to be shared at all levels before taking action. Thus the idea was presented at the next level of Town Planning and Environment, Planning and Finance and Full Council for endorsement.

Councilor's sensitization; the idea was further discussed during statutory meetings of the Council Committees and Full Council. After discussions, the Councilors agreed and advised that the idea of decentralizing solid waste management be shared to the community on the last Saturday of July, 2017 which was community environment cleaning day.

On site sensitization and establishment of refuse collection fee; during community environment cleaning days which took place monthly, Council staff joined the community to clean surroundings and used the opportunity to sensitize community on a new system of managing solid wastes in a decentralized manner. In addition, public meetings were used for community sensitization. After sensitization the Community agreed and passed a resolution to contribute TZS 500/= per a week for solid waste collection. Households were advised to keep waste in buckets and sucks and place them along streets for collection and transportation to the dumping site. Committee members collect fees using Point of Sales (POS) from each households and businesses in each Mtaa. The POS has managed to control revenue collection and expenditure. Through fees collected, communities hired a truck for collection and transportation of solid waste to the dump site.



Loading Solid Waste at Household Level

Formation of Mitaa environmental committees; Mitaa leaders conducted public meetings in which 36 Mitaa environmental committees were formed (with 10 members each) to coordinate solid waste management. The committees are responsible for overseeing overall cleanliness, protection of the environment, collection of solid waste in the public areas and supporting law enforcement in collaboration with Mtaa Executive Officers (MEO). In addition, committees are responsible for collection of solid waste fee and reporting on the progress of environmental protection, hygiene and sanitation to MEOs.

Participatory Enforcement of bylaws; In June 2017, Kondoa TC started effective environmental cleanliness using bylaws which were formulated by Kondoa DC in 2010 and amended through section 160 of bylaws for Environmental Cleanliness in Kondoa Township Authority. These bylaws were formulated in accordance with Local Government Laws (District Authorities) and states that defaulters of solid waste management bylaws be charged TZS 50,000 on site. Furthermore, bylaws shown in table 2 indicate charges decentralized and enforced by MEOs and Mtaa Environmental Committees.

Nu.	Business Category	Charges per Month	Charges year	per
1	Local liquor	1,000		12,000
2	Retail shops	2,000		24,000
3	Food vendors	1,000		12,000
4	Timber yard	2,000		24,000
5	Restaurant/hotel	2,000		24,000
6	Whole sellers	5,000		60,000
7	Guest Houses	5,000		60,000
8	Flour processing machines	4,000		48,000
9	Bakery	3,000		36,000
10	Carpentry workshop	4,000		48,000
11	Bar/grocery	5,000		60,000
12	Office	2,000		24,000
13	Saloon	2,000		24,000
14	Butcher	3,000		36,000
15	Garage	5,000		60,000
16	Welding	5,000		60,000

Table 2: Charges decentralized to Mtaa level

Utilization of refuse collection fees; Mitaa committees have mandate over collected fees and spend them on all operation costs including paying committee member, laborers and sheriffs, hiring trucks and purchasing fuel.

Placing posters in closed collection points; Posters detailing bylaws and penalties were placed in all closed collection points to inform the public accordingly. The purpose was to stop community members from using the closed collection points to dump waste.

5.0 RESOURCES

Human resource; Council staff and committee members participated fully in all processes including awareness creation, supervision and implementation the initiative. Financial resources; the Council utilized TZS 550,000 as seed money to this initiative.

6.0 RESULTS

Since decentralization of solid waste management, Kondoa TC has witnessed several results elaborated below.

- (i) Increased awareness on environmental cleanliness; emanating from the initiative the community has become responsible and is voluntarily accountable for Mitaa cleanliness and solid waste management. Each community member ensures that their surroundings are clean and waste free. This has reduced use of force and sanctions by the committees, MEOs and WEOs.
- (ii) Decreased outbreak of communicable diseases; in 2018 only 10 typhoid cases were reported compared to 123 in 2016. Currently, Kondoa TC is free from outbreaks arising from improper management of solid waste.
- (iii) Decentralized solid waste management; before the initiative, the Council was responsible for all activities related with solid waste management such as collection of refuse fees, employing laborers hiring of trucks, regular maintenance of truck and management of collection points. Currently, all solid waste management responsibilities are performed by the community and supervised by the Council.

- (iv) Employment creation; Mitaa committee members, laborers and sheriffs are paid allowances through solid waste collection fees indicating an employment opportunity.
- (v) Solid waste Collection points have been eliminated; all areas that were used as collection points have been changed into areas for business operations.



Changed use of collection points

- (vi) Clean storm water drainage; implementation of the initiative has controlled crude dumping of solid waste leading to reduced accumulation of wastes in storm water drainage system.
- (vii) Best performer award; in 2018 Kondoa TC received Regional competition award on environmental cleanness as best performer.

7.0 SUSTAINABILITY STRATEGIES

In order sustain the results of this initiative the following strategies were adopted;

- (i) The Council continues to supervise all waste management activities at Mitaa levels.
- (ii) Regular awareness creation to community members on prompt payment of waste collection fees and accountability on environmental cleanliness.
- (iii) Continued enforcement of well-functioning bylaws.
- (iv) Continued involvement of Mtaa chairpersons in community sensitization assures sustainability of the initiative.

8.0 SECRETS OF SUCCESS

Kondoa TC has made a revolution on environmental cleanliness and solid waste collection. The secret of success include the following;

- (i) Team work between Council staff, Councilors and the District Commissioner's office in supervision of town cleaning every last Saturday of each month.
- (ii) Willingness of the community to adopt decentralized system of solid waste management.

Chapter Four

Local Economic Development

Chapter four has three best practices related to local economic development efforts in relation to newly introduced One Village One Product movement (OVOP). The movement is focused on endogenous development theory by means of promoting and branding unique products. The OVOP movement originated from Oita Prefecture in Japan during the late 1970s and aimed to vitalize the prefecture's rural economy.

The concept is targeted to achieve social and economic development of the regions through voluntary capacity building of the people from grassroots level. Also, it aims at building bonding and/or bridging social capital, impacting upon community capacity development, knowledge creation and sharing. The subsequent introduction of value-added products, community policy, supportive structures, new or unique produce, agricultural processing techniques, tourism and ways of conceptualizing community were other strategies.

The OVOP movement is seen as a way of enhancing local communities' entrepreneurial skills by utilizing local resources, knowledge and experience; creating value addition activities through branding of local products and building human resources in the local economy. In particular, the use of knowledge and local resources without jeopardizing environmental soundness is a critical element of OVOP development, which also can be associated with endogenous development theory. In OVOP movement, there are popular phrases such as "think globally but act locally". The chapter presents five best practices from Kiteto, Simanjiro, Mbulu, Singida and Shinyanga DCs.

Kiteto DC best practice is about Milk Production and Value Addition implemented by Kibaya Dairy Cooperative. Before this initiative, milk and yoghurt production ranged between 48 and 65 packets of milk (each 500mls) with sales revenues ranging between TZS 30,000 and TZS 68,000 per day. These products were sold at TZS 800 per packet of fresh milk and/or yoghurt. Products were sold and transported from the factory to retailers packed in small plastic bags of 0.5 litres which had no labels and without certification by the TBS and/or TFDA. This brought a need to improve contribution of livestock keeping in stimulating the economy and poverty reduction through livestock products valueaddition by diversifying products. The approaches adopted include awareness creation and establishment of a factory, capacity building and financing, certification of milk products and quality control. Currently, there is a functioning milk factory with all essential facilities, increase in milk production and processing, presence of reliable milk market for cattle keepers and provision of quality dairy products to community. Achievements made by Kiteto DC and Kibaya Dairy Cooperative resulted from favourable climatic conditions of Kiteto DC, availability of pasture land and strong leadership exercised by Cooperative Board Members.

Simanjiro DC best practice focused on Improving Livelihoods through Value Addition of Hides and Skins. Before this initiative, hides and skins were considered of no use hence were left in slaughter slabs or thrown away. Approximately 50 pieces of hides and 130 pieces of skins were produced per week and there was no market. There were no factories within the Council to process hides and skins into leather items like shoes, belts, wallets and sandals, even though raw materials were available. This denied the people of Simanjiro DC employment opportunity in the sector. The initiative intended to improve livelihoods of the people through establishing leather factory in Simanjiro DC, formulation of groups for processing hides and skins, capacity building of group members, provision of running capital and installation of skin processing infrastructure. The initiative led into establishment of small leather processing factory at Mirerani Township, availability of quality leather products at affordable prices, well established market for raw hides and skins and creation of employment opportunity. The success of this initiative emanated from strong cooperation between the Council, stakeholders and MILEPROMA members, availability of hides and skins at affordable prices, committed CDO, Livestock Officer and MILEPROMA leadership and transparency, hardworking and trust among members of the group.

Mbulu DC initiative focused on Garlic Production and Value Addition, implemented by DIDIHAMA AMCOS – Bashay Ward. Before 2003 garlic production and marketing activities were locally and traditionally undertaken by smallholder farmers working individually. 930Ha were used for garlic production in a traditional way. Farmers experienced low production, insufficient extension services, poor production technologies, low farm gate price and poor market systems. The initiative was implemented to solve these challenges and improve livelihood of the farmers. The Council adopted various strategies including unification of farmers into schemes, improving irrigation infrastructure, construction of warehouse and feeder roads, formation of strong AMCOS, value addition, capacity building and price improvements. The initiative resulted into unified and trained farmers, improved production and marketing and increased household incomes. These were possible due to effective and hardworking Mbulu DC CMT and the Full Council, hardworking and committed garlic farmers of IRAQW tribe and significant availability of environmental and natural resource endowment for garlic production.

Singida DC best practice is about Control of Newcastle Disease (ND) for Improved Local Chicken Production. Poultry keeping within the Council was generally practiced by rural poor and usually run under a free-range system. Owners experienced low yield of chicken products due to frequent eruption of endemic chicken diseases including ND which caused chicken mortality of 50% to 90% every year. This situation prompted the Council to engage in this initiative for the purpose of improving food security and aid in poverty alleviation in rural families through increased poultry flock size and health by minimising the risk of ND outbreaks and increase knowledge on control of the disease. The implementation strategies involved awareness creation to communities through trainings, construction of building for incubation, formation poultry keeping groups and VICCOBA, selection of community vaccinators and distribution of ND vaccine. The initiative led to increased awareness and understanding on chicken diseases, increased production of chicken per household, increase in family incomes, increased poultry keeping skills and creation of employments. The initiative succeeded due to collaboration and commitment of Council staff, local leaders and vaccinators.

Shinyanga DC best practice narrates Participatory Improvement of Nyida Irrigation Scheme. Farmers in Nyida Village experienced low production per unity area attributed to poor irrigation scheme infrastructure. This led to low productivity and poor economic development of Nyida people. The Council decided to engage in this initiative to improve livelihoods of farmers at Nyida irrigation scheme through enhanced paddy production per unity area. The project was implemented under TANCAID II under cooperation between Tanzania through NIRC and Japan through JICA. The initiative adopted several implementation strategies including awareness campaign, participatory diagnostic study, participatory action planning, and formation of project committee. The completion of Nyida Irrigation scheme resulted into increased area of cultivation and increased production of paddy per acre. The

initiative succeeded because it was a felt need of the community, strong leadership of Irrigators' organization, creativity of Council Irrigation Officials and presence of JICA experts who worked very closely with the community in guiding, instructing and encouraging farmers.

KITETO DISTRICT COUNCIL



MILK PRODUCTION AND VALUE ADDITION





Experience of Kibaya Dairy Cooperative

1.0 INTRODUCTION

Kiteto DC is one of the 8 Councils in Manyara Region, established in 1984 and located 220km away from Manyara Regional Headquarters in Babati Town. The Council borders Simanjiro DC to the North, Kilindi DC to the East, Gairo and Kongwa DCs to the South, Chamwino and Chemba DCs to the West. The Council is located between Latitudes 40⁰31' and 60⁰3' South and Longitudes 36° 15' and 37° 25' East covering an area of 16,685km² of which 3,800km² are used for agricultural activities, 12,322km² are for livestock and wildlife activities, 560km² are covered by forests and 203km² are water bodies.

The Council area is generally considered to be arid to Semi-arid. The average temperature is 22°C with hot months during July, August, September, October and November and cool months during March, April, May and June. Although there are remarkable variations in the amount of precipitation, the Council receives an average of 350mm - 700mm of rainfall. There is only one rainy season which is between the month of January and May.

According to 2012 Census, Kiteto DC has 244,669 people, out of which 120,233 are male and 124,436 are female with growth rate of 3.2% per annum. The main ethnic groups are Maasai (32%), Gogo (27%), Rangi (18 %) and Nguu (2.6%) of the total population. Other tribes constitute 20.4% of the population. The Council is divided into 7 Divisions, 23 Wards and 63 Villages.

The main occupation of the people in the Council is agriculture and livestock keeping. About 90% of the population engage in livestock keeping while 10% engage in economic activities like trade, small-scale industries and beekeeping. Kiteto DC has more livestock than any other Council in Manyara Region. A total of 247,576.4ha of land have been set aside as grazing land.

S/N	Ward	Livestock Type					
		Cows	Goats	Sheep	Pigs	Donkey	Chicken
1	Chapakazi	6,547	4,475	1,996	220	226	6,159
2	Bwagamoyo	1,242	631	465	3,026	42	3,026
3	Makame	28,019	20,847	15,277	0	616	4,405
4	Ndirigishi	8,480	11,250	2,996	284	51	4,350
5	Kibaya	99	97	5	97	0	1,345
6	Ndedo	12,200	22,345	6,960	0	974	1,352
7	Kaloleni	391	984	196	135	10	3,491
8	Matui	2,967	2,079	841	521	120	1,606
9	Lengatei	33,064	35,323	16,000	0	561	7,086
10	Engusero	10,816	13,434	2,809	162	251	10,961
11	Dosidosi	3,137	2,944	1,235	2	31	2,737
12	Laiseri	33,286	12,531	4,848	28	191	10,112
13	Bwawani	1,926	1,043	253	8	0	1,742
14	Njoro	21,101	30,075	11,687	0	1,076	20,558
15	Loolera	19,731	13,681	5,772	0	1,077	8,605
16	Kijungu	5,554	9,520	7,849	25	229	2,866
17	Dongo	5,208	3,103	865	26	31	3,412
18	Namelock	24,605	37,351	6,077	0	263	7,720
19	Olbolot	9,974	7,337	4,055	0	371	5,398
20	Magungu	8,322	5,062	1,264	42	51	5,272
21	Partimbo	61,067	43,766	18,019	92	1,786	8,436
22	Sunya	35,658	23,173	16,136	237	1,052	12,825
23	Songambele	4,545	2,076	305	72	123	16,147
Total		337,939	303,127	303,127	1,993	9,122	149,611

Table 1: Number of livestock in Kiteto District

Infrastructure serving livestock population is limited. Out of 46 livestock charcodams, only 23 are operating. There are 27 cattle dips serving a total of over 940,000 cattle. This insufficiency partly accounts for causes of deaths of animals. Other causes are diseases such as tick borne diseases (75%), notifiable diseases (eg. Foot and Mouth Disease) (20%) and worm infection diseases (5%).

Apart from beef which is the main livestock product, skin and milk are other products of good value. Milk production in the Council is between 100,000 and 120,000 litres per day during rainy season with production declining to almost half the amount during dry season. On average, milk production per cow is 1 to 1.5 litres per day.

2.0 PROBLEM

Livestock keeping is one of the major economic activities of inhabitants of Kiteto DC widely practised by the Maasai community. The habitat, climate and weather provide good conditions for livestock to flourish. Kiteto DC has plenty of grazing land with good fodder which supports cattle keeping in all Wards as shown in Table 1.

Formation of a group of milk producers in 2012 aimed at collecting, processing and selling dairy products to people at Kibaya Town. At the start of this initiative in 2012, production of dairy products mainly fresh milk and yoghurt was very small. Milk and yoghurt production ranged between 48 and 65 packets of milk (each 500mls) with sales revenues ranging between TZS 30,000 and TZS 68,000 per day. These products were sold at TZS 800 per packet of fresh milk and/or yoghurt. Products were sold and transported from the factory to retailers packed in small plastic bags of 0.5 litres which had no labels and without certification by the TBS and/or TFDA for human consumption in Tanzania.

Storage equipment which were used by milk producers were not of recommended standards. Milk producers used plastic and iron cans instead of aluminium equipment which are preferred and recommended for storing raw milk awaiting processing procedures. This was also a major concern in transporting finished products as plastic and iron cans were used to deliver products to retailers and individual consumers.

Though different products could be produced from raw milk, Kibaya Dairy Cooperative was involved in production of only two products which were fresh milk and yoghurt. Products such as butter, and cheese were not produced.

3.0 OBJECTIVES

The main objective of Council and Kibaya Dairy Cooperative in this initiative was to enhance contribution of livestock keeping in stimulating the economy and poverty reduction. The specific objectives include;

- (i) To establish a cooperative of milk producers.
- (ii) To improve family incomes among cooperative society members and livestock keepers.
- (iii) To create employment opportunities to community members.
- (iv) To enhance livestock products value-addition by diversifying products.

6. IMPLEMENTATION STRATEGIES

Achievements notable today at Kibaya Dairy Cooperative was a combination of many strategies implemented since 2012 when a milk vending group was formed. The common strategies employed by the organisation are as elaborated below.

Initial decision making; early 2012 farmers in cooperation with livestock officer formed a group of milk producers. Later the Cooperative Officer played a key role in ensuring the formation and registration of the Cooperative prior to its operations. In 2016, Kiteto DC facilitated the Kibaya Dairy Group which began operations in 2012 to form a strong cooperative. The facilitation involved formation of a cooperative with registered Constitution, sale of cooperative shares, calling for the first annual general meeting and conducting elections for leadership involving Cooperative Board Chairperson, Treasurer and Manager, 7 Board members and Cooperative Members.

Awareness creation and establishment of a factory; the Council conducted various sessions to community with regard to milk production and processing and designed mechanisms for linking production and the cooperative. In addition, solicitation of nearby villages to encourage people to join the cooperative as new members was implemented. This led to construction of processing plant and establishment of collection points. To make the processing plant function effectively the cooperative purchased equipment such as standby generators, motorcycles and other assets as well as establishment of sales points at Mrijo and Njoro villages.

Kiteto DC support and supervision; the Council provided the land and built the processing building used by the Cooperative. The factory building was constructed as result of a proposal from Livestock and Fisheries Development Department which was tabled before the Council Management Team and submitted to the Finance Committee and Council Meeting for Approval. Council Livestock department continues to play important role of helping cooperative members with regard to livestock keeping and production of dairy products of good quality and quantity. The department provides training to improve skills and knowledge on modern livestock keeping practices such as disease control, vaccination, proper drug administration and pasture improvement.



Kibaya Milk Processing Building

Certification of milk products; the Council facilitated the process of certifying the products at the relevant government organs. The Tanzania Bureau of Standards (TBS) and Tanzania Food and Drugs Authority (TFDA) played a key role by issuing Certificates of Compliance in ensuring that the Cooperatives produces dairy products of required standards for human consumption.

Capacity building and financing; the TRIAS (an NGO in Northern Tanzania for farmers capacity building) helped the Cooperative by offering trainings on modern livestock practices. The Council also linked the Kibaya Milk Cooperative with SOLIDAL and AFD (cooperative societies in France) which provided fund (TZS 204 million as operations start up fund) for Kibaya dairy Cooperatives through TRIAS. The fund was used to provide breeds of cows which produce more milk, offer trainings to livestock keepers in processing dairy products to groups of livestock keepers.

Quality control; operations of the Kibaya Milk Cooperative are supervised by the Council Cooperative officer and a number of livestock officers. On governance and financial management, COASCO monitors operations of the Cooperative by conducting annual audits and providing feedback to comply with the Cooperative Act.

5.0 RESOURCES

Establishment, existence and operation of the Cooperative is a result of commitment of different resources; human, financial and physical. Various Council staff, Cooperative members and livestock keepers are important resources into this initiative. Listed below are the resources that have been committed to attain the results.

S/N	Resources	Number of Units	Total (TZS)
1	Processing Facility	1	20,000,000
2	Motorcycle	1	5,000,000
3	Motorcycle	1	4,500,000
4	Milking cane	6	1,600,000
5	Milk pasteurizer	1	4,000,000
6	Milk pasteurizer	1	2,000,000
5	Manpower/employees	4	650,000
6	Packaging machines	1	800,000
7	Deep freezer	1	2,000,000
8	Freezer	1	1,200,000

Table 2: Assets of Kibaya Milk Cooperative

6.0 RESULTS

Kiteto DC has witnessed several results as the presence of the Cooperative has brought significant impact on the welfare of cooperative members and general community as a whole. Some of the results are described below.

Presence of a functioning milk factory; the Cooperative has accumulated different assets which support its operations. These include milk processing facility with the main plant inside in which storage; processing and packaging of finished products take place. In addition, the organisation has 2 motorbikes which are used to deliver products to retail customers within Kiteto Town and nearby villages of Mrijo, Njoro and Mbigiri. Standby generator is in place to enable the Cooperative continue with production whenever there are power cuts. Likewise availability of water tank ensures water supply is always available for smooth operation of the facility.



Cooperative's assets used for operations. From left to right; Standby generator, 2 tricycles (Bajaj) and a water tank

Increase in milk production and processing; the cooperative has realized increasing amount of milk bought from milk producers from 50 litres per day (in 2012) to between 250 and 300 litres per day (in 2018). Current production ranges between 300 and 350 litres of milk per day with sales between TZS 100,000 and TZS. 300,000 per day. This implies that milk producers have maximum assurance of selling milk as long as they conform to quality standards. The processing plant has maximum capacity of processing 3,000 litres per day, the amount which is far to be met by producers.

Before		After		
Month (Year 2012)	Sales	Month (Year 2018)	Sales	
December	1,560,000.00	December	13,294,336.00	
October	1,464,000.00	November	20,168,836.83	
September	1,200,000.00	October	15,735,437.42	
August	1,392,000.00	September	18,455,537.42	
July	1,152,000.00	August	12,394,938.00	
June	1,680,000.00	July	12,890,162.52	

Table 3: Sales comparison before and after fully fledged Cooperative

Reliable milk market for cattle keepers; presence of this factory has been of great help to milk producers found in Kiteto DC especially Kibaya area. Before the intervention excess milk was wasted due to lack of market and very low prices. With the milk factory in place, milk from local producers is now fully bought, preserved, processed and sent to the market in the form of different products. Such product diversification has made it possible to meet demands of customers of different products. Currently, raw milk is processed in the form of different products (fresh milk, yoghurt and cheese) which may remain in good quality in the market for more than six months after being processed and packed.

Provision of quality dairy products to community; the community of Kibaya Town enjoy diversified dairy products of desired good quality with assurance of good health for residents. This results from test laboratory which determines quality of raw milk with respect to its chemical composition and concentration as well as its density before being accepted for processing.



Dairy products from left to right; Cheese, fresh milk and yoghurt

Market expansion; the cooperative has extended the coverage of market and its products are available in Morogoro, Arusha and Dodoma downtowns. The original markets covered Kiteto DC villages such as Njoro and Mrijo villages which are away from KIbaya village where processing is done.

Increase in number of members joining the Cooperative; Kiteto Dairy Cooperative initially started in 2012 with only 20 members but as of 2018 there are 100 members. The increase of members has

significant implications on the revenues generated through members' annual subscription fees, shares bought by members and profits generated from credits given to its members.

Employment opportunities; establishment of the Cooperative has created direct and indirect employment opportunities to Kibaya Village community. In 2018, 4 people were in employment; 3 men and 1 woman who are paid salaries. 10 Board members are also part time employees. Indirect employment include a number of youth and women who collect milk from farmers and deliver at the factory.



Employed staff of Kiteto Dairy Cooperative at work

Awards; having acquired appropriate technology and qualified staff with adequate skills, Kibaya Dairy Cooperative has become one of the few producers of dairy products of good quality in Tanzania. In the national competitions held in 2018 in Dodoma involving producers of dairy products, 3 dairy products (2 products of cheese and yoghurt) of Kibaya Dairy Cooperative ranked third in terms of quality.



One of the trophy won by the Cooperative

7.0 SUSTAINABILITY STRATEGIES

Kibaya Dairy Cooperative has existed for more than 15 years. Sustainability of the cooperative is guaranteed due to continued contribution of members to the organisation, buying and selling of shares and the revenues collected from sales of dairy products. By diversifying products, the Cooperative is set to capture demands of different market segments thus ensuring near-stable income generation. The cooperative has plans to widen its coverage to reach more milk producers and expand the processing factory. The Council as well intends to create effective linkages that will attract various stakeholders to support the cooperative, livestock keeping and value addition of all livestock products.

8.0 SECRET OF SUCCESS

Achievement made by Kiteto DC and Kibaya Dairy Cooperative was a combination of many factors. The favourable climatic conditions of Kiteto DC as a major contributing factor increased production of raw

milk which guarantees the Cooperative to function. Availability of land set aside as pasture land for livestock provides opportunity for reliable resources needed by livestock which in turn provide assurance of availability of raw milk from which other dairy products are processed. In addition, the land on which the factory has been built was provided by the District Council for free. Lastly success of the Cooperative is subjected to strong leadership exercised by its Board Members.

SIMANJIRO DISTRICT COUNCIL



IMPROVING LIVELIHOODS THROUGH VALUE ADDITION OF HIDES AND SKINS



Experience of MILEPROMA Group

1.0 INTRODUCTION

Simanjiro DC is among 7 Council of Manyara Region located between Latitude 3^o 45" and 5^o 15" South and Longitudes 3^o 15" and 38^o East. Its altitude ranges from 560m to 2,123.04m above sea level. The Council boarders Arumeru DC to the North, Hai and Moshi DC to the South, Kiteto and Kondoa DCs to the West and Mwanga, Same, Handeni, Kilindi and Korogwe DCs to the East. The Council has 6 Divisions, 18 Wards, 57 Villages, and 281 Vitongoji. According to 2012 Census Simanjiro DC has Population of 178,693 with 89,718 female and 88,975 male.



Map of Manyara Region

The Council area is 20,591km², arable land is 600km², hunting blocks 12,682km², water bodies 75km² and the rest of the land is covered by hills/ridges and human settlements. Main economic activities are livestock keeping, crop production, mining, tourism, hunting and beekeeping. 80% of the populations are Livestock keepers (pastoralist and or agro pastoralist). Common animals kept are cattle, sheep, goats, poultry, donkey, camels and pigs. The Council is estimated to have 437,925 cattle, 225,003 sheep, 396,452 goats, 896 pigs, 94,429 poultry, 21,867 donkeys and 55 camels. Major crops cultivated are maize, beans, pigeon peas, sunflower, onions, garlic, paddy and finger millet. Cash crops include millet, water melon, maize, sorghum, rice, onions and beans. The Council is rich in minerals such as Tanzanite, Ruby, green garnet, green tourmaline and rhodelite. All these precious stones are mined in Mirerani, Kangala, Landanai, Komolo, Namalulu, Kitwai and Naberera. Tourism and hunting also contributes to economic activities in the Council. These include Cultural tourism in Maasai and Akie (Ndorobo), Hunting trophies and photography tourism.

2.0 PROBLEM

Simajiro DC is among Councils in Tanzania with high number of livestock. The livestock produce various products such as beef, milk, manure, hides and skins. The demand of these, their use and price varies distinctively. Hides and skins was considered of no use hence were left in the slaughter slab or thrown away. Approximately 50 pieces of hides and 130 pieces of skins were produced per week and there was no market. A larger number of hides and skin left in the slaughter slab caused unpleasant smell to the

community members surrounding the area. It was costly for the Council to remove them as TZS 35,000 was utilized in collecting and dumping at appropriate site every week. There were no industries within the Council to process hides and skins into leather items like shoes, belts, wallets and sandals, even though raw materials were available. This denied the people of Simanjiro DC employment opportunity in the sector.

3.0 OBJECTIVE

The main objective of this initiative was to improve livelihoods of the people through establishing leather industry in Simanjiro DC. Specifically, the initiative intended to;

- (i) Create awareness to community members that hides and skins have value.
- (ii) Raise prices of raw hides and skins from TZS. 0 to about TZS 1,000.
- (iii) Establish leather processing factory in order to produce quality leather.
- (iv) Create employment opportunities in leather processing from 0 to about 300.

4.0 IMPLEMENTATION STRATEGIES

In 2010, NGO (World Vision) realized that hides and skins from animals were of no use in Simanjiro DC as they were destroyed instead of treating them as important resources. The World Vision felt a need to create awareness among communities to realize that hides and skins could be turned into opportunity for generating incomes. To achieve the objectives, several implementation strategies were adopted. These include;

Initiation of the idea; in 2010 some members from the World Vision and UVIMASHA attended JuaKali exhibitions in Kenya and learned techniques of processing leather items. Upon their return, they developed an idea of processing hides and skins in Mirerani. The idea was shared to community members who were interested and learned how to utilize hides and skins in making various leather items. The World Vision supported the idea and encouraged participants to form groups.

Formulation of groups; in 2010, 27 individuals joined and formed a group known as Mirerani Leather Processing & Product Manufacturing (MILEPROMA) in order to start processing hides and skins. MILEPROMA has its administration and leadership and was registered on 14.07.2017 by BRELA with registration number 432759. The group members were supported by World Vision to attend trainings on how to process raw hides and skins. The training was facilitated by SIDO.

Capacity building of group members; the group members were equipped with different knowledge and skills through training and study tours. In 2010, 27 group members were trained on group formation. In 2011 trainees were given TZS 250,000 for purchasing hides and skins for practical training on processing of hides and skins and manufacturing of simple products such as key holders, wallets, and belts. This was supported by World Vision/UVIMASHA.

In 2012, further training on group formation, entrepreneurship, hides and skins processing, leather product manufacturing (sandals, hand bags, hats) to 110 members from different groups was provided. These trainings were supported by the Council, SIDO and an NGO known as FAIR TRADE. The trainings were conducted at World Vision offices at Endiamtu Ward and Enyuat Emoipo at Loibosoit Ward. In 2013, training on hides and skins processing was conducted to 70 members. This training aimed at developing capacity on initial processing of animal hides and skins. This was implemented after installation of processing facility.



Processing facilities

Between 2013 and 2014 further trainings were conducted to 120 members (from 4 groups) on hides and skins processing, use of machines in manufacturing leather products, marketing and entrepreneurship skills. These trainings were facilitated by the Council, SIDO and MUVI. In addition, four members were sent to DIT – Mwanza for one month training on leather dying and shoes making. Another group of 12 members was facilitated to attend exhibitions; Sabasaba in Dar es Salaam, Nanenane in Arusha, Leather in Kilimanjaro and SIDO in Kigoma for the purpose of developing more skills. The study visits were financed by the Council and MUVI.

Provision of running capital; capital is essential for the sustainability, therefore, in 2014 the Council supported the group with soft loan of TZS 12,000,000. Provision of soft loan was done after capacity building to group members on investment and business management.

Installation of skin processing infrastructures; in 2014 World Vision/UVIMASHA supported the group by constructing hides and skins processing infrastructure worth TZS 25,000,000. The infrastructure includes a building with processing facilities such as tanks for dipping the skins and processing tools. In 2015, World Vision and UVIMASHA constructed additional infrastructure to enhance production from 12 pieces (using plastic containers) to 40 pieces using improved infrastructure. In the same year, SIDO provided support of 6 machines for cutting, pressing, sewing, smoothing and reducing leather thickness to increase quality of products. In 2017, the Council provided chemicals which are more effective and shortened processing of in hides and skins from 10 to 3 days. After these improvements, the factory has the capacity to produce 20 pairs of school shoes instead of 5 pairs per day.



Improved processing infrastructure

Searching markets for leather products; to obtain markets, various promotions were made during exhibitions such as Nanenane in Arusha 2017, Sabasaba in Dar Es Salam 2018, SIDO in Kigoma 2017 and SMEs in Kilimanjaro 2017. In addition, the Council linked the group with public and private schools to increase sales of leather products in which 7 primary and 2 secondary schools in Mirerani Township were supplied with 600 pairs of shoes.

Awareness creation to livestock keepers on hides and skins quality; the quality of the leather products produced depends on quality of raw hides and skins. In order to ensure quality, between 2015 and 2018 5,000 livestock keepers were trained on proper livestock keeping, control of ectoparasites and mechanical damage of hides and skins. In 2016, 24 slaughter slabs workers of Mirerani and Orkesumet Wards were trained on proper skinning methods and supplied with proper blunt edged knives. This led to quality improvement of hides and skins from earlier grades of 3 and 4 to average of grade 2.



Improved hides and skins

5.0 RESOURCES

Implementation of this initiative uses various resource including financial, human and physical resources. Financial resources are presented in table 1 below.

S/N	ACTIVITY	AMOUNT	SOURCE
1.	Constitution preparation and registration of MILEPROMA (2015)	2,700,000	Group Members
2.	Purchase of 6 machineries (2017)	20,000,000	SIDO/MUVI
	Capacity building on the use of machineries (2016 and 2017)		
	Registration of MILEPROMA at BRELA		
	Study tour to Moshi, Dar Es Salamu and Kigoma (2017 and 2018)		
3.	Capacity building on hides and skins processing (2015 to 2017)	12,000,000	District Council
	Procurement of chemical for hides and skin processing (2017)		
	Procurement of materials and equipment (2017)		
	Rehabilitation of sinks and sewage system (2017)		
4.	Construction of hides and skin processing infrastructure	25,000,000	World Vision/ UVIMASHA
	Training on hides and skin processing and manufacturing leather products		
	TOTAL	59,700,000	

Table 1: Financial Resources

Human Resources included group members with strong leadership of Chairperson, Secretary, and Treasurer. The group members are divided into 4 production sections (hides and skin processing, section for leather and beads decoration, section for school shoes, sandals, key holder, belt and wallets making). The Community Development Officer and Livestock officer were responsible for technical support.

Physical resources involved two buildings constructed by the World Vision/UVIMASHA. One of the buildings is used for hides and skin processing and the other for manufacturing; both worth TZS 25,000,000 and 6 Machinery worth TZS 10,000,000.

6.0 RESULTS

Implementation of this initiative has the following results;

(i) Presence well established small leather processing factory at Mirerani Township. The factory is functioning and has essential equipment for processing quality leather products.



Group members at the factory

(ii) Availability of quality leather products at affordable prices at the local market at Mirerani. These include quality and durable balls, shoes, sandals, key holders, belts, and wallets.



Quality leather products

- (iii) Well established market for raw hides and skins; initially the hides and skins were of no use, hence were destroyed. Currently, hides and skins are sold at a price between TZS 3,000 and TZS 10,000 per piece.
- (iv) Creation of employment opportunity; the initiative has employed 14 members engaging in leather products from production to marketing.



Employed group members at the factory

- (v) Promotion of Simanjiro DC to other areas; leather products have a seal showing MILEPROMA Simanjiro. The products have been promoted in various exhibitions.
- (vi) Increased MILEPROMA members' incomes; employment in the factory has changed members from being petty income earners to stable monthly earnings of about TZS. 300,000 resulting from sales of products.



Group shop at Mirerani

(vii) The group has become a learning center; individuals and groups from different places such as Msitu wa Tembo, Orkesumet in Simanjiro DC and from other Councils including Hanang and Karatu visited MILEPROMA group to learn manufacturing of leather products. Similarly, two group members were invited to Zanzibar to train leather processing groups.

7.0 SUSTAINABILITY STRATEGIES

In order to make this project sustainable the following strategies are in place;

- (i) The Council continues to support the group by searching stable markets within and outside the Council through continued promotion of products and linking producers with markets.
- (ii) There is continued capacity building program especially on production of more varieties of products with high quality through study tours in various occasions such as Nanenane, Sabasaba and SIDO exhibitions.
- (iii) The Council has a plan to make MILEPROMA a center for training and learning by advertising the center to nearby Councils and Regions and support them to establish branches in other areas.

8.0 SECRET OF SUCCESS

The initiative succeeded due to the following;

- (i) Availability of hides and skins at affordable prices.
- (ii) Strong cooperation between the Council, stakeholders and MILEPROMA members.
- (iii) Committed Community Development Officer, Livestock Officer and MILEPROMA leadership.
- (iv) Transparency, hardworking and trust among members of the group.
- (v) The project is strategically located near Arusha City and Moshi Municipality where there are stable market from tourists.

MBULU DISTRICT COUNCIL



GARLIC PRODUCTION AND VALUE ADDITION



Experience of DIDIHAMA AMCOS – Bashay Ward

1.0 INTRODUCTION

Mbulu DC is one of 7 Councils in Manyara Region located between Latitudes 3^o and 4^o South and Longitudes 34^o and 35^o East bordered by Karatu DC to the North, Babati DC to the East, Hanang DC to the South and Iramba DC to the West. The Council has an area of 4,350 km². According to 2012 Census the Council has a population of 191,570 in which 96 481 are male and 95,089 are female with average growth rate at 3.8% per annum which is higher than the national average of 2.8% while the average household size is 6.3 persons. The Council has 18 Wards, 76 Villages and 362 Vitongoji.

The altitude ranges from 1,000m (West) to 2,400m (East) above sea level and the Council experiences cold and warm weather throughout the year. Rainfall ranges from less than 400mm in the western zone to over 1,200mm in the Eastern zone. The average rainfall is about 600mm annually which is generally considered the limit for reliable agriculture. The temperature shows much uniformity, both with regard to time of year and place. Annual temperatures range from 15° C to 24° C.



Manyara Region and Mbulu DC Map

Agriculture and Livestock dominate the livelihood and economic activities of the people in Mbulu DC contributing 90% of the economy and employing about 96% of the workforce while employment in other sectors counts at 4%. Major crops produced include maize, beans, sorgham, sunflower, garlic, pyrethrum, potatoes and chickpeas. About 54,000Ha are potential for crop production; currently 47,834Ha are cultivated.

2.0 PROBLEM

Garlic is a horticultural crop produced at Bashay Basin in Mbulu Dc. The crop is propagated vegetatively and requires cold season to initiate growth, photoperiodic which is essential for proper cloves and bulb formation. Garlic is management demanding, labor and capital intensive crop hence the producer has to strive to obtain maximum yield. In order to obtain quality maximum yield continuous irrigation is very important, but farmers were stressed by insufficient irrigation water. Water scarcity was influenced by limited sources of irrigation water; poor traditional irrigation canals which contributed to the loss of water by 30% through canal leakages and evaporation. Water scarcity was also triggered by poor management and distribution schedule of irrigation.

Before 2003 garlic production and marketing activities were locally and traditionally undertaken by smallholder farmers working individually. The only source of water for irrigation was from Yaeda River. 930Ha were used for garlic production in a traditional way. Water for irrigation was not sufficient and the mode of water distribution management to different farmers' plots was very poor which resulted

into scramble for irrigation water. Often, conflicts among farmers arose due to poor water distribution and management.

Although garlic is potential cash crop in Mbulu DC farmers faced the following production and marketing challenges;

- (i) Low production of garlic per hectare to meet growing consumers' demand. Production used to be 3-5T per hectare while target was to produce 8-10T per hectare
- (ii) Insufficient extension services; Bashay basin did not have extension officers.
- (iii) Poor production technologies (most farmers used hand hoes and ploughs).
- (iv) Poor utilization of improved farm inputs (seeds, industrial fertilizers and chemicals.)
- (v) Low farm gate price for garlic.
- (vi) Poor market infrastructure exemplified by impassable feeder roads and poor warehouse.
- (vii) Improper measurements for selling and purchasing of garlic; only 3 weighing scales were available in the warehouse.
- (viii) High post-harvest loses (of about 30%).

3.0 OBJECTIVES

The general objective for garlic production and value addition at Bashay Ward-Basin was to improve agricultural activities and livelihoods. The specific objectives were to;

- (i) Increase garlic production from 3 to 8T per hectare.
- (ii) Reduce post-harvest loses from 30% to below 20%.
- (iii) Establish Garlic Processing factory and acquire standards of TFA, TBS, and barcode.
- (iv) Improve market linkages for 4 farmers group (Busara, Hekima, Amani and Chonde), 2 SACCOS, and 1 AMCOS (DIDIHAMA) at Bashay Ward.
- (v) Establish 2 Garlic Warehouses at Bashay and Dinamu Wards.
- (vi) Rehabilitate Dirim Bridge, 28 kilometers feeder roads and 30 culverts.
- (vii) Construct 2 warehouses at Bashay and Dinamu.
- (viii) Use standard weighing scales for selling and buying garlic at Bashay Ward.

4.0 IMPLEMENTATION STRATEGIES

Unification of farmers into schemes; the circumstances of insufficient irrigation water forced farmers' groups using tradition canals to form 4 irrigation schemes in 2003. The 4 schemes were Mangisa, Diyomat, Harsha and Dirim which shared sources of water from Yaeda River (Perennial River). These 4 irrigation schemes succeeded to distribute equally irrigation water from the upper stream towards downstream schemes by water gravity. These schemes organized themselves and formed Irrigation Organization (IOs). In 2004, the Council Technical Team assisted the farmers groups to register as SACCOS.

Improving irrigation infrastructure; in 2005, through Participatory Irrigation Development Programme (PIDP) financed by IFAD, Mangisa Dam with capacity of 500,000M³ was constructed as irrigation water reservoir to increase the amount of water for irrigation. These initiatives of forming schemes and construction of Mangisa Dam and other irrigation infrastructure increased productivity through increased area under garlic production from 930Ha (2002) to 1200Ha (2005) and production per Hectare increased from 2790T (2002) to 6,000T (2005).

Construction of Warehouse and feeder roads; in 2005, Mbulu DC in collaboration with Agriculture Marketing System Development Programme (AMSDP) constructed Garlic Warehouse. The principal objective of this project was to enable farmers to store the produce after harvest and fetch better prices

during off-season. This would eliminate middlemen and brokers who ripped farmers at the fields. The Council also facilitated construction of agricultural and market infrastructure such as 28km feeder roads, 30 culverts, 1 Dirim bridge, 2 warehouses and 1 garlic processing machines. In addition, the Council provided standard weighing scales and linked of 3 VICOBA groups to financial institutions (Postal Bank, NMB and CRDB).



Standard Weighing Scales

Formation of strong AMCOS; in 2011 DIDIHAMA AMCOS was formed having 50 members from primary cooperatives. The DIDIHAMA AMCOS provides production and marketing services to the members. Some of the services provided by DIDIHAMA AMCOS include searching for marketing channels of crops produced, provision of inputs including improved seeds and chemicals and control of services provided in Bashay warehouse.



Warehouse and storage facility

Value chain and addition; in 2013, Mbulu DC in collaboration with Marketing Infrastructure, Value Addition and Rural Finance Support Programme (MIVARF) supported farmers endeavor along the garlic value chain from improving production techniques, marketing and processing. It also involved support of farm inputs for garlic production at Bashay Ward; the 15 groups are currently using appropriate packing materials ordered from PPTL, Tanga Region. The Groups are linked to extension services such as TAHA and Village Extension Officers which has increased productivity from 3T to 5T per acre. 5 groups were linked to JB Agrovet and Kisusi Agrovet for input supply. In addition, the MIVARF supported procurement of 1 garlic processing machine (TZS 70,850,000) for Bashay Ward in which MIVARF contributed 58% (TZS 41,250,000), Mbulu DC 10% (TZS 6,750,000) and the Community 32% (TZS 22,850,000).

Capacity building and price improvements; MIVARF and SIDO provided training for 30 personnel on garlic processing and facilitated market linkage for 4 famers groups, 2 SACCOS, and 1 AMCOS in which 22 groups were linked to buyers through Kariakoo Marketing Corporation (KMC) and a Memorandum of Understanding (MoU) was signed to assure farmers a market price of TZS 5,500 to 6,000 per kg for retail price and TZS 300,000 to 330,000 per 100kg for wholesale price. In addition, 22 groups were linked to

buyers from Mozambique through KMC in which a total of 20T are bought per season through MESULA Company and 2SEEDS NETWORKS buyers.



Trained Garlic Processing Personnel

Creation of more linkages; 7 groups were linked and registered by TAHA for extension services, input supply and provision of market information. All groups were linked to MKULIMA MBUNIFU Newsletter from which each group receives more than 20 copies of MKULIMA MBUNIFU which provides various information including market information and improved agronomy practices. All 22 groups have access to market information through meetings and notice boards installed in the project area and the market center established at Bashay including 2 information notice boards installed in Bashay and Diyomat.

In order to ensure all activities are executed effectively and efficiently Mbulu DC in collaboration with SIDO, MVIWATA, MIVARF, JICA, IRDP, MDC, 4CCP, FARM AFRICA, RUDI, TOA, PO-RALG, DMDD used a combination of strategies and approaches that include Community Mobilization/Awareness Approach (CMA), Obstacles and Opportunity to Development Approach (O&OD), Fund Raising Techniques (FRT), By Laws Enforcement Technique (BLET), Stake Holder Collaboration and Contribution Approach (SHCCA).

5.0 RESOURCES

For the purpose of facilitating production and marketing of garlic at Bashay Ward, Mbulu DC, the CG and stakeholders used different resources depending on the phase of implementation.

Project I: Construction of Garlic Ware House at Bashay Ward. The Garlic Warehouse was constructed using funds from AMSDP and Mbulu DC in 2008 amounting to TZS 360,000,000; Mbulu DC contributed TZS 18,000,000 (5%), the Community TZS 36,000,000 (10%) and AMSDP TZS 306,000,000 (85%).

Project2: Garlic processing factory in Bashay Ward was constructed at TZS 70,850,000 contributed by MIVARF TZS 41,250,000 (85%), Mbulu DC TZS 6,750,000 (5%) and the Community TZS 22,850,000 (10%).

The human resources involved the CMT. Physical Resources included land for garlic production 1,260Ha owned by farmers and the land for Garlic Ware House and Garlic Processing factory of 3Ha owned by DIDIHAMA AMCOS.

6.0 RESULTS

The implementation strategies adopted by Mbulu DC, various stakeholders and garlic farmers achieved a number of tangible results summarized below.

Unified and trained farmers; 22 beneficiary groups (19 producers, 2 processor, 1 marketing association) are in place and legally registered at council while 4 groups are registered by BRELA. In addition 102 groups of farmers have been trained and mobilized to store their produce in warehouses including skills

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development for sorting, grading and packing garlic products. Group representatives have attended different Agribusiness and Farmers exhibitions. About 73 farmers are qualified in processing and packing garlic in DIDIHAMA AMCOS.

Reliable infrastructure; the Dirim Bridge is in place to enable transportation and communication between the villages and fields while feeders roads of 28km and 30 culverts support transportation throughout the year.

Improved production and marketing; garlic production has increased from 3T per hectare (2013/2014) to 8T per hectare in 2018/2019. The Council ensured that 102 farmer groups are linked to financial institutions while 7 groups have been linked and registered to TAHA for provision of extension services, input supply and market information. The marketing process is supported by Garlic Warehouse constructed at Bashay Ward with the capacity of 500,000T and Garlic Processing Plant with capacity of processing 3.8T of Garlic per day. Other infrastructural developments include presence of 1 Irrigation Scheme constructed by JICA at Mangisa, 1 Bridge constructed by MIVARF at Dirim Village, feeder roads and garlic warehouse rehabilitated by MIVARF at Diyomat Village. Garlic processing machinery has decreased postharvest loses from 30% to below 20%.

Increased household incomes; garlic processing has increased household incomes as a bag of 100kg of raw garlic is sold at price between TZS 150,000 to TZS 200,000 while processed garlic of 100kg is sold at TZS 600,000 and TZS 640,000. Warehouse and standard weighing scales have improved household incomes of the farmers from 600,000 to 5,000,000 per annum. This has accelerated economic growth in the Council. Bashay warehouse gives opportunity to farmers to add value to garlic by drying the garlic before storing, cleaning, sorting, grading and parking.



Processed Garlic Products

Garlic farmers have realized improvements in socio-economic services; improved garlic production and processing and presence of roads, bridges and culverts have linked farmers' farms with warehouses and extension services. Improvements in garlic value and prices have improved housing and increased demand for water and electricity.

7.0 SUSTAINABILITY STRATEGIES

Mbulu DC and the garlic farmers are committed to make this expensive initiative sustainable. The Council in collaboration with all garlic value chain stakeholders have set several sustainability strategies for this initiative. These include;

- (i) Improving Planning and Budgeting for garlic production, processing and marketing at Bashay Ward.
- (ii) Improvement of infrastructure for garlic production, processing and marketing at Bashay Ward.
- (iii) Continued resource mobilization for garlic production, processing, and marketing.

- (iv) Strengthening market linkages between farmers, SACCOS and AMCOS with external marketing organizations and financial Institutions (BANKS) and provide guarantees for securing agrocredits.
- (v) Continuous training of farmers and personnel on garlic handling, processing, packaging and marketing.
- (vi) Continuous involvement of domestic and foreign stakeholders in garlic production, processing and marketing.

8.0 SECRET OF SUCCESS

Mbulu DC target was to improve agricultural activities and livelihoods through garlic production and value addition at Bashay Ward-Basin. The success of this initiative is centered on the factors summarized below;

- (i) Effective and hardworking Mbulu DC CMT and the Full Council.
- (ii) Hard working and committed garlic farmers of IRAQW tribe.
- (iii) Significant availability of environmental and natural resource endowment for garlic production (water sources and land).
- (iv) Adoption of warehousing and proper measurements in selling garlic products.
- (v) Garlic farmer groups willingness and commitment to adopt garlic processing and value addition.

SINGIDA DISTRICT COUNCIL



CONTROL OF NEWCASTLE DISEASE FOR IMPROVED LOCAL CHICKEN PRODUCTION



Experience of Singida DC

1.0 INTRODUCTION

Singida DC is among 7 Councils of Singida Region located between Latitude 3° and 7° South and Longitude 33° and 35° East. Singida DC borders Mkalama DC to the North, Hanang DC to the East and Ikungi DC to the South. According to 2012 Census, Singida DC has a population of 225,521, whereas 111,772 are male and 113,749 are female. The average household size is 5.4. The Council is divided into 3 Divisions, 21 Wards, 84 Villages and 433 Vitongoji.

The Council has a total area of 6,053km² whereas 4,031.8km² is agricultural land, 1,423.2km² grazing land, 517km² forests and shrubs, 77km² water bodies and 4km² is mining sites and hills. The Council forms part of semi-arid climate which experiences low rainfall and short rainy season throughout the year. The average rainfall ranges from 600mm to 700mm per annum. There are two seasons; the short rainy season during the months of December to March and the long dry season from April to November.



Singida DC within Singida Region Map

Major economic activities in the Council are agriculture and livestock keeping of which 85% of the populations is engaged. Cash crops produced include sunflower, onions, groundnuts, finger millet, yellow peas, coriander, sesame, cotton, pigeon peas and cashewnuts while food crops are maize, sorghum, millets, beans, cassava and sweet potatoes. Livestock keeping is the second economic activity after agriculture with local chicken constituting 58% of livestock. Other economic activities include fishing, small businesses, mining and processing industry which cover about 15%.

2.0 PROBLEM

Within the livestock sector, local poultry are most commonly owned type of livestock, more frequently owned by resource-poor households, women and children. Poultry keeping is often essential element of female-headed households. The rural poultry industry is one of the biggest untapped economic resources in rural areas. It is increasingly evident that, if rural poultry were recognized, developed and incorporated into development plans at all levels, they would contribute greatly to speeding up human development, especially among resource-poor households in rural areas.

In Singida DC, local chicken raising is generally practiced by rural poor and usually run under a free-range system. Owners experienced low yield of chicken products due to frequent eruption of endemic chicken diseases including Newcastle Disease (ND) which caused chicken mortality of 50% to 90% every year.

The size of household chicken flock used to fluctuate during the year due to ND. The average size of chickens flock in household level was 10 to 20 chickens in June/July when chicken had abundant feeds and low (0 to 3) during the dry season after the Newcastle disease outbreak in October/November. Due to frequent occurrences of ND, farmers experienced economic loss which affected their incomes leading to failure to pay school fees, access better health services and construct modern houses.

3.0 OBJECTIVE

The Newcastle Disease Control initiative was implemented after realizing that chicken form the most significant livestock species in terms of ownership, access to animal protein and potential for earning incomes for disadvantaged rural communities. The main objective was to improve food security and aid in poverty alleviation in rural families. Specifically, the initiative intended to;

- (i) Increase poultry flock size and health by minimising the risk of ND outbreaks.
- (ii) Increase knowledge on ND and ND control.
- (iii) Improve economic situation and welfare of village inhabitants.
- (iv) Reduce social, economic and trade impact of ND at household, Village and Council levels.

4.0 IMPLEMENTATION STRATEGIES

Implementation of this initiative involved several approaches. The initiative began with introducing community-based programme for control and prevention of ND, advising farmers on simple and sustainable approaches to maintaining good chicken health and production and increasing the general awareness among farmers towards the economic benefits of poultry keeping. A community based approach made it possible to apply interventions to the whole poultry flock. In order to enlist the community support for this approach, five pilot Villages (Mughanga, Mwakiti, Nkuninkana, Musungua and Unyangwe) from Mtinko, Ilongero, Ihanja and Sepuka Wards were selected and a training was conducted within various levels of the community social structure (Ward, Villages and Vitongoji) at which key local decisions were made.

Training of Local Leaders; in 2010, the first training was conducted for local leaders who have direct links to community development and animal health. These included elected leaders (Councillors, Village and Vitongoji Chairpersons) and technical staff from the Council, Ward, and Village agriculture and animal health practitioners and community development officers. The training aimed at familiarizing local leaders on the program to ensure institutional support in introducing ND vaccination and poultry keeping education programs in the Villages and set budget and by-laws to sustain the program. A One-day workshop on socio-economic benefits of poultry production was conducted. A case study on the impact of the number of chickens transported to the town centres every month was used to exemplify the potential of poultry keeping in combating poverty. In addition, an overview of local chicken management including egg management, feeding, housing, and marketing and poultry diseases affecting local chicken flocks including ND virus transmission, prevention, early detection, and its control measures were also discussed. During village-level training, a group of local artists performed a drama on poultry management, health, and marketing. Throughout the workshop, participants at all levels were actively invited to contribute their experiences and difficulties in poultry keeping. Shared experiences of the participants were invaluable to the program. At the end of the course, trainees were asked to present plans of action for implementing Newcastle control program. Plans were discussed and reviewed.

Nomination and selection of vaccinators; following the training, Vitongoji chairpersons were asked to nominate vaccination trainees based on their responsibility and trustworthiness. The selection of vaccinators was done during community meetings as it was essential to have all community members

aware. Depending on the size of Kitongoji, 1 to 3 vaccinators were selected from each Kitongoji. The selected vaccinators included both men and women.

Training of Community Vaccinators; the selected vaccinators were trained by a technical staff from the Council on how to vaccinate poultry, communicate and engage farmers on vaccination exercise. In addition, vaccinators were trained to create awareness to farmers as to why they should vaccinate their chicken. Vaccinators were also trained to record the number of chicken present at the time of vaccination, the number of chicken vaccinated and the reasons for not vaccinating some chicken.

Distribution of ND Vaccine; the first vaccination was carried out by vaccinators together with Council technical staff team. Social economic data were collected concurrently with first vaccination. The community vaccinators were given I-2 ND vaccine for the first three rounds of vaccination, thereafter they were directed to purchase the vaccine from Ward Agriculture and Livestock Extension Officers (WAEOs) provided by the Council. The role of WAEOs was to supervise the distribution of vaccine and vaccination activities, settle disputes between the participants, ensure vaccine distribution was adequate and verify whether vaccinators performed their duties adequately. The WAEOs also collected and stored vaccination records from vaccinators and data collectors before handing them to Council coordinator. The WAEOs had to ensure repayment of the previously cost of vaccine by vaccinators before issuing another vaccine. Ward Executive Officers (WEOs), Community Development Officers, Village Executive Officers and Vitongoji Chairpersons assisted WAEOs during implementation of the vaccination campaigns.

Establishing timing of vaccination campaigns; since after administration of the vaccine, immunity does not develop immediately, 1 to 2 weeks is required for full immune response to occur. Chicken should be vaccinated at least one month before an outbreak is likely to occur, therefore poultry farmers were involved in establishing timing in which ND outbreaks are most common in the villages. The purpose was to establish exactly timing for vaccination and method to be applied. A Collaborative campaign was established during vaccination and revaccination and methods for vaccination were decided. With the eye drop method of vaccination, chicken were best vaccinated at least three times a year. In case of oral vaccination, chicken were given booster doses two to four weeks after initial vaccination, with revaccination at three month intervals. Vaccinating poultry flocks at three to four month intervals was also a means to protect newly hatched chicks.



Community vaccinator vaccinating chicken

Formation of poultry keeping groups and VICCOBA; in order to improve production, the CDO conducted sensitization campaigns to community members to organize themselves into groups for easy access of
Council support in terms of skills and loans. The community formed VICCOBA for the purpose of assisting each other to accumulate capital and improve their poultry farms.

Construction of building for incubation, food processing and chicken market; after realizing the potential of poultry keeping, the Council supported construction of buildings for installation of incubator, chicken food processing machines and chicken market. The construction and purchases of the incubator and chicken food processing machine was done through funds from ASDP.



Chicken Market

Chicken Food Processing factory

Incubator Building

5.0 RESOURCES

Implementation of this initiative utilized various resources including human, financial and physical resources. Human Resources included 4 trainers from the Ministry of Agriculture and Livestock Development who were involved in preparation of training manual and conducting training to 5 pilot Villages. Others included participants from Council Headquarters, Ward and Village Extension Officers and vaccinators. Financial resources included costs for training and purchase of vaccines as shown in table 1 and 2 below.

	Number of Participants	Days	Amount	Total TZS
Nominated community Vaccinators	23	3	60,000	4,140,000
Village Chairpersons	5	3	60,000	900,000
Village Executive officers (VEO)	5	3	60,000	900,000
Ward Executive Officers (WEO)	4	3	60,000	720,000
Ward Agriculture Extension Officers (WAEO)	4	3	60,000	720,000
District Community Development Officer (DCDO)	1	3	60,000	180,000
District Agriculture and Livestock Development Officer (DALDO)	1	3	60,000	180,000
Livestock Officers (Headquarters)	4	3	60,000	720,000
District Agriculture Extension Officer (DAEO)	1	3	60,000	180,000
Facilitators from the ministry of Agriculture and Livestock Development	4	3	120,000	1,440,000
Vaccines (ampoules)	48	1	6,000	288,000
Refreshment for Participants	48	3	6,000	864,000
Conference hall	1	3	150,000	450,000
Stationary	48	1	10,000	480,000
Total				12,162,000

Table 1: Costs for Training and Vaccines in 5 Pilot villages

	U			
	No.	Days	Amount	Total TZS
	Participants		TZS	
Nominated community Vaccinators	330	1	20,000	6,600,000
Ward Executive Officers (WEO)	24	1	20,000	480,000
Ward Agriculture Extension Officers (WAEO)	24	1	20,000	480,000
Ward Community Development Officer (WCDO)	24	1	20,000	480,000
Facilitators from District council	28	1	45,000	1,260,000
Vaccines (ampoules)	500	1	6,000	3,000,000
Refreshment for Participants	390	3	6,000	7,020,000
Stationary	390	1	5,000	1,950,000
Total				21,270,000

Table 2: Costs for Training in 28 Wards

6.0 RESULTS

The first vaccination campaign was carried out in January 2011 using I-2 thermo-tolerant vaccine produced by Central Veterinary Laboratory (CVL) in 5 pilot Villages and later the Council Decided to include all Wards. Following vaccination campaigns, results of this initiative are described below.

Increased awareness and understanding on chicken diseases; training for local leaders and community members increased awareness on poultry diseases and prevention among poultry farmers. This is witnessed by presence of community vaccinators and demand for vaccination from the community.

Increased production of chicken per household; chicken number increased from 8 to 20 per household and more households engage in poultry keeping. An average of 1 chicken and 8 eggs are sold while households consume 1 chicken and 3 eggs monthly. Newcastle disease, which was the most common chicken disease in Singida DC causing annual losses of more than 80% of village chicken, has been totally controlled.



Transportation of Chicken to Markets

Increase in family incomes; the initiative has led to increased incomes among community members indicated by continued construction of modern houses, increased ability to pay school fees and health charges, ownership of motor vehicles and motorcycles among community members and ability to participate and engage in credit and savings cooperatives.



Selling of chicken

Increased participation of women in poultry keeping; following the implementation of this initiative, participation of women in poultry business has increased parallel with women empowerment.



Poultry keepers with strong participation of women

Employment creation; vaccination exercise is labor intensive which requires committed individuals. In most cases community vaccinators receive payment from farmers to cover the cost of vaccines and labor. These payments increase morale of vaccinators to cover a large area.

Increased poultry keeping skills; the skills for poultry keeping have been improved including feeding, vaccination and incubation of chicks using improved methods. Few community members engage in production of chicken feeds and incubation of chicks for sale.

Involvement of community vaccinators; ND vaccination programs have greatly reduced costs and increase coverage of vaccination area this ensures sustainability of vaccination activities as long as the community vaccinator lives within the community.

7.0 SUSTAINABILITY STRATEGIES

In order to ensure permanent elimination of ND and other poultry diseases, several strategies are in place. These include;

- (i) Continued sensitization and capacity building to community members on poultry diseases and control.
- (ii) Continued collaborative relationship between extension officers and community members developed by the Council through rewarding system to best performers.
- (iii) The Council has made a plan to establish a central laboratory for examination of chicken diseases.
- (iv) Establishment of chicken marketing in Mtinko Ward will motivate farmers to continue producing chicken.

8.0 SECRET OF SUCCESS

Secret for success of this initiative include;

- (i) Traditionally indigenous Nyaturu communities engage in poultry keeping and have adequate skills.
- (ii) Presence of favorable agricultural and climatic calendar; vaccination campaigns were planned to coincide with periods of the year when farmers are not very busy fields.
- (iii) Assurance of cost-recovery options; majority of farmers are willing to pay for a product because they believe they will get a good return on their investment.
- (iv) Committed Council staff, local leaders and vaccinators.

SHINYANGA DISTRICT COUNCIL



PARTICIPATORY IMPROVEMENT OF NYIDA IRRIGATION SCHEME



Experince of Shinyanga DC

1.0 INTRODUCTION

Shinyanga DC is among 6 Councils of Shinyanga Region located between Latitude 3⁰.20' and 3⁰.95' South and Longitudes 32⁰.30' and 33⁰.30' East and shares borders with Kishapu DC and Shinyanga MC to the East, Kahama TC and Geita DC to the West, Kwimba DC to the North and Nzega DC to the South. The Council has an area of 4,212km². The Council has 3 Divisions, 26 Wards, 126 Villages and 856 Vitongoji. According to 2012 Census, the Council has a population of 378,928 whereas 184,695 are male and 194,232 are female. There are 23,872 households with an average size of 6.3 persons and the only ethnic group is Sukuma. The population density is 88 people per km².



Map of Shinyanga DC

Nyida Village is located at Nyida Ward Itwangi Division, 68km West of Shinyanga Town. The Village is famous in paddy production under Nyida Irrigation Scheme. The scheme occupies potential area of 700Ha. The irrigation scheme was established in 1998 and constructed between 2002 and 2004 under Participatory Irrigation Development Programme (PIDP) funded by IFAD. The scheme was registered in 2003 with registration SO. No 11882 under Ministry of Home affairs and in 2018 it was registered under National Irrigation Commission (NIRC) with registration No. 075. The scheme has 386 irrigators of which 290 are male and 96 are female. The sources of water for irrigation are seasonal rivers (Manonga River & Puni River).

2.0 PROBLEM

Shinyanga DC has a dry tropical climate and gets limited rainfall annually. The average annual rainfall is between 450mm – 990mm and falls during October – May seasons. This amount of rain would be satisfactory for agricultural purposes had it been stable and reliable but the rains in Shinyanga DC are scattered making agricultural activities, especially crop production difficult. For this reason, the Council struggles to encourage farmers to cultivate crops that are drought resistant. Farmers also experience severe hardship in getting pasture and water for livestock.

Between 1986 and 2000 paddy growers in Nyida Village experienced low production per unity area due to unstable rains. Average of 8 bags per acre was produced as compared to standard production of 25 to 30 bags of paddy per acre when rains are stable. Low production of paddy was also attributed to poor irrigation scheme infrastructure due to unlined water canal, siltation of the canal and uncontrolled pathways for both animals and people. The problem prevailed for more than 10years before

interventions were made, hence low productivity and stagnated economic development of Nyida people. Photos below show the actual situation of the irrigation scheme before intervention.



Conditions of the canals before rehabilitation

3.0 OBJECTIVE

The overall objective of the initiative was to improve livelihoods of farmers at Nyida irrigation scheme through enhanced paddy production per unity area. Specifically, the initiative intended to construct water reservoir and rehabilitate 380m of Nyida Irrigation canal.



Nyida Irrigation scheme map

4.0 IMPLEMENTATION STRATEGIES

Implementation of this initiative involved donors, Government of Tanzania and community participation. The project was implemented under TANCAID II which is a project under cooperation between Tanzania through NIRC and Japan through JICA. The objective of this cooperation was to promote and improve irrigation development through capacity building of irrigation staff in utilization of Irrigation comprehensive guideline (ICG), strengthening farmers towards supervision and monitoring of irrigation infrastructure and eventually ensure quality of constructed infrastructure. Practical utilization of ICG was conducted in Nyida Irrigation scheme by constructing 380m canal (secondary canal number 5). ICG has four parts which are formulation, implementation, operation and maintenance (O&M) and training. In case of Nyida irrigation scheme, utilization of ICG focused only in formulation and implementation, thus steps implemented were; scheme awareness campaign, participatory action glanning, participatory diagnostic study, letter of commitment, feasibility study, project implementation agreement, detail design, tendering and contracts awards and finally construction. Description of each activity conducted is explained below.

Scheme awareness campaign; Community meetings were organized between August 2017 and September 2017. The meetings were initiated by Irrigators' organization to discuss how the scheme is important. Farmers believed that irrigation was backbone of economic development. During these meetings, Irrigation experts and Community Development Officers attended and conducted sensitization campaign to farmers to join efforts in scheme infrastructure rehabilitation.



Sensitization meetings

Participatory Diagnostic Study; in June 2017, farmers participated fully in the assessment of the project before rehabilitation exercise. The Irrigators' Organization Members (farmers) were engaged in participatory diagnostic study (problem identification and ranking/prioritization of problems), feasibility study, participatory design and budget planning especially in determining contributions for operation and maintenance fee, material to be used in rehabilitation, physical and cash contributions. The meetings were held at the Village hosted by Irrigators' Organization. During this exercise farmers identified several areas which needed to be considered during reconstruction process. Farmers also surveyed the whole canal and cleared all bushes around the canal. The results of participatory diagnostic study are presented in table 1 below.

S/ N	Problem	Causes	Possible Solution	Ranking	
1	Water loss in Main canal	Unlined canal (1,324 meters)	Lining of the canal, excavation of protection bund and construction of cross drainage structure	1	
2	Shortage of Irrigation water	Lack of reservoir	Construction of dam	2	
3	Water loss in 5 Secondary canal	Unlined canal (1,543 meters)	Lining of the canal, excavation of protection bund and construction of cross drainage structure	1	
4	Water loss in 5 Secondary canal	Unlined canal	Lining of canal and repair of drop	1	
5	Road culvert on the farm access road not functioning	Erosion	Road rehabilitation around the culvert and compaction	3	

Table 1. Participatory diagnostic s	tudy results
PARTICIPATORY DIAGNOSTIC STUDY RESULTS	AND PRIORITIE



Survey exercise and participatory assessment

Participatory action planning; farmers agreed to make a plan of action by identifying different activities to be carried out during the whole period of canal rehabilitation. Farmers were involved in preparing scheme map and identifying activities to be carried out. Photos below show farmers participating in preparation of scheme map.



Farmers drawing irrigation scheme sketch map

Formation of project committee; a project committee of 10 members (6 male and 4 female) was formed to supervise and manage project implementation. The Committee members were trained on supervision and management of construction work and were provided with a checklist for monitoring of activities. The checklist was prepared by the Council staff in a simple language (Swahili version) to be used in monitoring for quality construction of irrigation infrastructure. Appendix 1 shows a sample of checklist used in monitoring and supervision.

Tendering contracts awards and construction; tendering and contract award was done under forced account. The construction team was established in September 2017 and all construction processes were under the instruction of the expertise from JICA, Zonal irrigation office, Irrigation Engineer from the Council and members of Project Committee (PC) from the Irrigators Organization. PC supervised construction in collaboration with Technical staff. Local *fundis* and farmers were fully utilized during reconstructing of canals. Their role was to execute all masonry works such as stones and concrete works as well as construction of pathways. Farmers also collected all locally available building materials such as stones, sand and gravel. This exercise was well organized by the Irrigators Organization and involved more than 250 farmers who are direct beneficiaries of the scheme.



Canal construction works

5.0 RESOURCES

Implementation of this initiative utilized TZS 1,078,594,981.82 to accomplish the project on cost sharing principle where by 20% of the total budget was community contributions and 80% from JICA and GOT (TANCAID II) Table 2 below shows financial resource utilization.

Table 2: Financial Resources

S/N	YEAR	ACTIVITY	AMOUNT(TZS)	SOURCE
01	2002-2005	Construction of intake ,cross drainage, farm access	480,000,000	PIDP project
		roads		
02	2012	Rehabilitation of weir/intake and main canal 80m	32,000,000	TASAF
03	2017	Lining of 5 secondary canal (380m)	100,000,000	JICA-TANCAID II PROJECT
04	2018-2019	Lining of main canal 1,324m, construction of two cross drainage structures, three division boxes and one aqueduct 10 m length	466,594,981.82	JICA (SSIDP)
		Total	1,078,594,981.82	

Human resource included experts from JICA, Council staff and members of Irrigator Organization who participated fully during rehabilitation works.

6.0 RESULTS

Rehabilitation of Nyida Irrigation Scheme brought several results which are beneficial to the community and exemplary to Council. A total of 380m of canal were renovated, two (2) pathways and one (1) culvert constructed, therefore challenges of siltation, loss of water, haphazard pathways for both people and animals are non-existent.



Improved irrigation infrastructure

Increased production of paddy per acre; harvests have increased from 8 bags to 25 bags per acre accelerating farmers' incomes from TZS 520,000 to TZS 1,625,000 per acre in 2018 hence improved purchasing power of farmers. This is evident as several farmers have purchased transport facilities such as motorcycles, started businesses, bought extra cattle, built modern houses and manage to pay for social services.

Increase of cultivated area; renovation of Nyida Irrigation Scheme has motivated farmers to engage in paddy production increasing cultivated area from 394Ha to 421Ha.



Paddy fields

Nyida Irrigation scheme became a center for learning; the efforts demonstrated by Nyida irrigators attracted the Ministry of Water and Irrigation to recognize Nyida Irrigation Scheme as a model for other schemes to learn. In 2018 irrigators from Misenyi DC, Bariadi DC, Karagwe DC and Namtumbo DC visited Nyida Irrigation Scheme for learning purposes.

7.0 SUSTAINABILITY STRATEGIES

In order to sustain the results, the following strategies are in place.

(i) Continued use of local skilled workers and community participation in project implementation assures regular maintenance of the scheme.

- (ii) There is agreement for farmers to contribute 5% of paddy produced for operations and maintenances of the scheme.
- (iii) There is a bylaw that prohibits livestock keepers from grazing along the scheme infrastructure which is strictly enforced.

8.0 SECRET OF SUCCESS

Success of Shinyanga DC initiative is centered in factors described below;

- (i) The scheme was a felt need of the community, thus they had positive attitude towards the initiative and they participated fully in all stages of implementation.
- (ii) Strong leadership of Irrigators' organization.
- (iii) Creativity of District Irrigation Officials to introduce a checklist for project monitoring made it easy for the farmers to supervise the project implementation.
- (iv) Strong commitment of Council staff
- (v) Presence of JICA experts who worked very closely with the community in guiding, instructing and encouraging farmers.

(Mradi wa Maendeleo ya Umwagiliaji kwa Skimu Ndogo) (Fomu iliyorahisishwa Kwa ajili ya usimamizi wa kazi za ujenzi kamati za miradi)

Zone/Kanda:_____District/Wilaya:

Project Committee/Kamati ya Mradi:

_Date/Tarehe:

No.		Check Items	Eva	luation			
(Nai	mba)	(Kuangalia Vifaa)	(Та	thmini)			
(1)	Earth	th Works/Kazi za Udongo					
	(a)	All obstacles are removed from places to be excavated/filled.	OK	NO			
		(Huondoaji wa vizuizi vyote visivyohitajika katika eneo litakalo chimbwa/Jazwa)	(Ndio)	(Hapana)			
	(b)	The depth of stripping is about 20cm.	OK	NO			
		(Kina cha huonaoaji ni kati ya sm 20)	UK (Ndia)	NU (Llanana)			
			(Nulo)	(пирини)			
	(c)	The excavated line is carefully trimmed and formed as mentioned in the drawina(s)	ОК	NO			
	(0)	(Mpaka wa uchimbaii umekatwa na kuchonawa kama ilivvoonveshwa kwenve mchoro)	(Ndio)	(Hapana)			
	(d)	The unused excavated soils are properly placed at specified places.	ОК	NO			
	. ,	(Udongo uliochimbwa umehifadhiwa sehemu husika)	(Ndio)	(Hapana)			
	(e)	The embankment materials are not so dry.	ОК	NO			
		(Udongo unaotengeneza tuta siyo mkavu/haujatawanyika)	(Ndio)	(Hapana)			
	(f)	The embankment materials are not so wet.	ОК	NO			
		(Udongo unaotengeneza tuta siyo chepechepe)	(Ndio)	(Hapana)			
	(g)	The spreading of embankment materials is properly conducted, say about 20cm	ОК	NO			
		(Uwekaji/Utawanyaji wa udongo wa tuta 🛛 👘 👘 👘 umefanyika vizuri,kama sm 20 hivi)	(Ndio)	(Hapana)			
		at a grant of the second s					
	<i>(b)</i>	The organic materials (algents, aggresses, woods, atc) are not					
	(11)	included in the embankment					
		(IIdongo wa juu (mimea majani magugu n k) hauno katika tuta)					
			01/	NO			
			UK (Natio)	NO			
			(Naio)	(Hapana)			
	(;)	There are no any clock in embanded materials	OK	NO			
	(1)	Hakuna udanao uliohakia (kutawanyika kwanya tuta)	(Ndio)	(Hanana)			
	(i)	There are no any holes in embankment after compaction	OK	(Hupunu) NO			
	(1)	(Hakuna nafasi/mashimo kwenye tuta haada ya ushindiliaii)	(Ndio)	(Hanana)			
	(k)	10 to 20 cm extra embankment is provided for canal bank.	OK	NO			
	1.7	(Sm 10 mpaka 20 za ziada zimeachwa kwa ajili ya kinao za mfereji)	(Ndio)	(Hanana)			
	(1)	Passaae times by compaction equipment are more than 6 times.	OK	NO			
	(1)	(Ushindiliaji umefanyika zaidi ya mara 6 kwa kutumia shindilia)	(Ndio)	(Hapana)			
	(1)	If finding any problems on earth works, please itemize them below.	_,/				
	.,	(Kama kuna matatizoyoyote katika kazi ya udongo ainisha hapa chini)					
(2)	Conc	rete Works/ Kazi ya Zege					
	(a)	Water for concrete mixing is free from impurities.	ОК	NO			
		(Maji kwa ajili ya uchanganyaji wa zege ni masafi)	(Ndio)	(Hapana)			
	(b)	Sands, fine aggregates and coarse aggregates for concrete are placed separately.	ОК	NO			
		(Mchanga,Kokoto kwa ajili ya zege zimehifadhiwa tofauti)	(Ndio)	(Hapana)			
	(c)	Sands, fine aggregates and coarse aggregates for concrete do not contain any organic materials (plants,	ОК	NO			
		grasses, woods, etc).	(Ndio)	(Hapana)			
		(Mchanga,Kokoto kwa ajili ya zege hazina organic material(Mimea,majani,magugu n.k))	(11010)	(napana)			
	(d)	Sands, fine aggregates and coarse aggregates for concrete are stored with					
		an appropriate drainage facility.					
		(Mchanga,Kokoto kwa ajili ya zege zimehifadhiwa sehemu nzuri)	OK	NO			
		the second s	(INDIO)	(нарапа)			
	(e)	Cements are ordinal Portland cements	OK	NO			

Sub-project/Jina la mradi: Checked by/Imehakikiwa Na:____

N	o. Check Items		Evaluation			
(Nar	nba)	a) (Kuangalia Vifaa)		thmini)		
		(Saruji inafaa)	(Ndio)	(Hapana)		
	(f)	Cements are not placed on the ground.	ОК	NO		
		(Saruji haikuifadhiwa juu ya ardhi/chini)	(Ndio)	(Hapana)		
	(g)	Cements are kept in ventilated ware-house (Saruji imehifadhiwa sehemu yenye mwanga)	OK (Ndio)	NO (Hapana)		
	(h)	Concrete mixing is conducted on the steel plate or wooden plate. (Uchangaji wa zege haujafanyika juu ya ardhi/chini)	OK (Ndio)	NO (Hapana)		
	(i)	Contaminated water is not used for concrete mixing. (Lichanganyaii wa zege haujatumia maji yaliyatumika)	OK (Ndio)	NO (Hanana)		
	(i)	Inside surface of wooden form is clean	OK	NO		
	07	(Ndani va 'form work' ni kusafi)	(Ndio)	(Hanana)		
	(k)	Sufficient commarction is made for placed concrete	OK	NO		
	(14)	(Ilshindiliaii wa kutosha umefanyika kwenye zege)	(Ndio)	(Hanana)		
	(1)	(osminand) wa katosha umbo an concrete surface	(11010)	(napana)		
	(7)	(Hakuna nafasi wala matundu kwenye zege lililojengwa)	OK (Ndio)	NO (Hapana)		
	(m)	There are no organic materials (plants, grasses, woods, etc) in concrete. (Hakuna 'Udongo wa juu'(mimea,majani,magugu n.k) kwenye zege)	OK (Ndio)	NO (Hapana)		
	(n)	Reinforcement bars are free from mud, oil grease and/or other contaminant.	ОК	NO		
		(Nondo hazina matope,mafuta au mchanganyo wowote)	(Ndio)	(Hapana)		
	(0)	Enough curing time is provided for placed concrete.	ОК	NO		
		(Muda wa kutosha umetengwa kwa ajili ya wa kumwagilia zege)	(Ndio)	(Hapana)		
	(p)	The placed concrete is sprinkled with water for proper curing.	ОК	NO		
\square		(Zege lililojengwa linamwagiliwa ipasavyo ili likomae)	(Ndio)	(Hapana)		
	(q)	If finding any problems on concrete works, please itemize them below.				
		(Kama kuna matatizo yoyote katika kazi ya ujenzi wa zege ainisha hapa chini)				
(3)	Stone	Masonry Works/Kazi ya ujenzi wa mawe	_			
	(a)	Stones are free from crack/seam.	OK	NO		
		(Mawe hayana mipasuko)	(Ndio)	(Hapana)		

No.		Check Items	Eva	luation
(Nar	nba)	(Kuangalia Vifaa)	(Ta	thmini)
	(b)	Stone size is 30 cm to 50 cm and 2/3 of wall thickness. (Kiwango cha mawe ni sm 30 mpaka 50 na2/3 ya unene wa ukut.	OK (Ndio)	NO (Hapana)
	(c)	Stones are moistened before placing.	ОК	NO
		(Mawe husafishwa kabla ya kutumika/kujengea)	(Ndio)	(Hapana)
	(d)	Water for mortar is free from impurities.	ОК	NO
		(Maji kwa ajili ya mota ni masafi)	(Ndio)	(Hapana)
	(e)	Sands are washed before use	OK (Ndia)	NO (Lanana)
	(6)	(Michanga umecnekechwa kabia ya matumizi)	(Nalo)	(Hapana)
	0)	Sanas are free from the organic matters and other contamination. (Mchanga unafaa hauna mchangapuika wowata)	(Ndia)	NU (Hanana)
	(a)	Cements are ordinal Portland cements	(NUID) OK	(Tupullu) NO
	(9)	(Saruii inafaa)	(Ndio)	(Hapana)
	(h)	Voids among stones are sufficiently filled with joint mortar	((
	. ,	(Nafasi kati ya jiwe na jiwe zimejazwa vizuri na mota)		
			ОК	NO
			(Ndio)	(Hapana)
	(i)	If finding any problems on stone masonry works, please itemize them below.		
		(Kama kuna matatizoyoyote katika kazi ya ujenzi wa mawe ainisha hapa chini)		
(4)	Othe	r Works/Kazi nyingine	1	r
	(a)	Gate height is proper for its operation	OK	NO
	(6)	(Urefu wa geti unatosna kwa ajili ya kutumia).	(Naio)	(Hapana)
	(0)	Gate is smootniy openea ana ciosea. (Geti linafunga na kufungua vizuri)	(Ndio)	(Hanana)
	(c)	There is no leakage from gate.	OK	NO
	(-)	(Hakuna hitilafu yoyote kwenye geti)	(Ndio)	(Hapana)
	(d)	Gate is properly painted to protecting from rust.	ОК	NO
		(Geti limepakwa vizuri kuzuia kutu)	(Ndio)	(Hapana)
	(e)	Slot for stoplog is symmetry to the left and right sides. (Stoplog zikokwenye hali nzuri)	OK (Ndio)	NO (Hapana)
	(f)	Size of stones for gabion is 30 cm to 40 cm. (Ukubwa wa mawe ya gabioni n ism 30 mpaka 40)	OK (Ndio)	NO (Hapana)
	(g)	Stones for gabion are tightly packed in wire net.	ОК	NO
		(Mawe kwa ajili ya gabioni yamepangwa vizuri kwenye waya)	(Ndio)	(Hapana)
	(h)	If finding any problems on other works, please itemize them below.		
		ικαπα καπα πατατιέογογοτε κατικά καει πγιπίμπε απισπά πάρα επίπι		

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