Regional Training Of Trainers Programme On Integration Of Land Tenure Monitoring In Development Projects Using Geo-Spatial Technologies.

11-19 APRIL 2016

DRAFT

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Acronyms and Abbreviations

ANSAF	**Agriculture Non-State Actors Forum**
CBINReMP	**Community Based Integrated Natural Resource Management Project**
GEF	**Global Environment Facility**
GLII	**Global Land Indicators Initiative**
GIS	**Geographic Information Systems**
GLTN	**Global Lands Tools Network**
GPS	**Global Positioning System**
IFAD	**International Fund for Agricultural Development**
IRWUA	**Irrigation Water Users Association**
LUSIP	**Lower Usuthu Smallholder Irrigation Project**
M & E	**Monitoring and Evaluation**
NIB	**National Irrigation Board**
NRM	**Natural Resource Management**
PRODIPRA	**Securing Artisanal Fishers' Resource Rights Project**
PROMER	**Rural Markets Promotion Programme**
PROSUL	**Pro-Poor Value Chain Development in the Maputo and Limpopo Corridors**
PPHPZ	**People's Process On Housing & Poverty**
RECONCILE	**Resource Conflict Institute**
RCMRD	**Regional Centre for Mapping Resources for Development**
RIMS	**Results Impact Management Systems**
STDM	**Social Tenure Domain Model**
SAPP	**Sustainable Agricultural Production Programme**
SDCP	**Smallholder Dairy Commercialization Programme**
SDGs	**Sustainable Development Goals**
TSLI-ESA	**Tenure Security Learning Initiative for East and Southern Africa Project**
UNDP	**United Nations Development Programme**
UTaNRMP	**Upper Tana Catchment Natural Resources Management Project**

VODP   **Vegetable Oil Development Project**

VGGTs   **Voluntary Guidelines on the Responsible Governance of Tenure of Land, Forests and Fisheries**

FOREWORD

There is an inextricable link between land access, tenure security on one hand, and investment, income/food security on the other. This is one key transformation that the 2030 Development Agenda needs to achieve. Many of the poorest and food insecure groups are those with the most insecure land tenure rights, including the female headed households, orphans, migrant farm workers, peri-urban and urban slum dwellers, and the internally displaced persons.

Tenure is in this contexts not restricted to formal property rights, it also includes customary tenure regimes, flexible rights, and long terms use rights (usufruct). Secure tenure rights to land and natural resources are a key for poor populations to access the very basic resources that would allow them to develop and sustain their livelihoods. Without secure land tenure, families and communities are vulnerable to expropriations and face innumerous challenges to access financial resources, markets and other services. This is particularly important in the changing rural landscapes in most developing countries, which face increasing demand for land for competing uses, such as for biofuels, large-scale food production and as a safeguard against climate change.

Over the past decade, governments and their partners in development concerned with land and property rights globally have seen shifts in knowledge and understanding and growth in the consensus that land tenure security for all and equitable land governance are foundations for sustainable economic development and elimination of poverty (UN-Habitat/GLTN, 2014). This consensus is reflected in the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Forests and Fisheries in the Contexts of National Food Security (the VGGTs), and other related global and regional instruments such as the Framework and Guidelines on Land Policy in Africa. The VGGTs highlight the need for secure tenure rights for local communities with customary tenure systems to enhance food security and food sovereignty. Many governments have in the past two decades embarked on reforms of their legal and policy frameworks for the governance of land and natural resources in their respective jurisdictions.

A key feature of the reforms has been strengthening of security of tenure for land and natural resources falling outside the formal registry by legally recognizing the non-titled land asset ownership. As such, there has been amendments of old land laws and enactment of new land laws to accommodate the majority, especially, indigenous peoples, who previously did not access formal registration of the property rights on land.

The Global Donor Working Group on Land, a network of 23 bi- and multilateral donors and international organizations committed to land governance worldwide, has also paid renewed attention to land and governance in responding to the new wave of private land acquisition and land-based investment in the global south. Over the past decade, global portfolio of investments in land governance has grown, now estimated at USD 8.2 billion in 131 countries. In the last three years, the GDWGL has focused its efforts to ensure that the globally endorsed VGGTs are implemented and monitored at national level, as much as well represented at the SDGs.

The United Nations High-Level Panel of Eminent Persons on the Post-2015 Development Agenda report has proposed a target on "secure rights to land, property, and other assets" as a building block for people to lift themselves out of poverty. Discussions on the integration of land into the framework for measuring progress towards a set of post-215 Sustainable Development Goals (SDGs) are now actively underway.

Land is an important indicator in several goals of the post 2015 development agenda especially with regard to poverty reduction, food security, equality and even sustainability as it relates to natural disasters and global warming. As such effective monitoring is essential in ensuring that changes in land governance result in improved conditions and sustainable development opportunities for all, especially for the poor. In particular, better knowledge and understanding are needed of ; (a) the extent to which poor people benefit from secure land and property rights; (b) the effectiveness of land-related policies and land administration systems in helping deliver tenure security for all and achieve sustainable use of land resources.

In recent times, there has been an unprecedented need for information and technology to support mapping of land and natural resource rights, use and management. This is a remarkable period as much of the participatory mapping, which in its broadest sense, refers to creation of maps by local communities – is often with the involvement of supporting organizations including governments (at various levels), non-governmental organizations (NGOs), universities and other actors engaged in development. Participatory mapping initiatives have begun to use more technically advanced geographic information technologies, including Geographic Information System (GIS), satellite imagery, Global Navigation Satellite Systems (GNSS) like the commonly used Global Positioning Systems (GPS), and other digital-based technologies (IFAD 2009).

This has increasingly supported land governance, administration and management as well as natural resource management as geospatial information improves in terms of scope,

availability and affordability. Geographical Information Systems (GIS) are used increasingly in variety of application areas. The possibilities to increase the accuracy and to create combinations of all kinds of information sources are available through the GIS technology.

GLTN through the Land and Natural Resources Tenure Learning Initiative for Eastern and Southern Africa (TSLI–ESA) project continues to work towards strengthening poor communities' tenure security on land and natural resources via different approaches including geo-referencing of land records and documentation. Recent advancements in geospatial technologies have enabled the integration of remote sensing data in the information systems of projects.

A Regional Learning Trainers of Trainees Workshop on Integration of Land Tenure Monitoring in Development Projects Using Geo-Spatial Technologies held on 11th to 19th April, 2016 at RCMRD Complex, Kasarani, Kenya marked the capacity development component of the project. The workshop was attended by a total of 26 participants (20 male and 6 female trainees) drawn from 11 countries within the East and Southern Africa region, namely; Burundi, Comoros, Ethiopia, Kenya, Malawi, Mozambique, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe, but also from different IFAD funded projects/programmes. (See Annex 3 for List of participants).

The training focused on how IFAD projects/ programmes can best integrate land tenure monitoring using geo-spatial technologies to measure the impact tenure security on project outcomes. The training was also expected to build partnerships with other IFAD supported projects/programmes in supporting tenure security measures.
The expected outputs of the workshop were:
- Acquire knowledge on how to integrate GIS in their activities (resources physical and soft skill)
- Identify key land tenure indicators that would need to be tracked using geo-spatial technologies
- Produce and interpret maps to show results on land tenure related issues.
- Formulate plans for in-country follow-up, application and learning as well as possible adoption.
- Form core group of champions for IFAD/GLTN TSLI-ESA programme.

Empowering local communities with the means and incentives to sustainably manage their natural resources has been increasingly seen as a critical factor to protect their resources from degradation and/or dispossession, eradicate extreme poverty and thereby achieve sustainable development.

Again, it is essential to monitor the tenure implications of development projects and programmes. In particular, it is important to monitor land related conflicts in project and programme areas where it may be expected to experience land shortages or rapidly increasing land values due to local population growth as people migrate into impact areas for economic opportunities. Increased competition for access to land due to population growth and increased economic opportunities may increase competing claims for control and use of land that may in turn lead to loss of tenure rights for the poor, especially women and the youth.

These developments have created the need for a core set of indicators that have national applications and are globally relevant and comparable. This phenomenon led in 2012 to collaboration of over 90 partners in a coalition to establish the Global Land Indicators Initiative (GLII) to develop a set of core land indicators to measure tenure security globally and at country level (UN-Habitat/GLTN, 2014). This initiative is facilitated by Global Land Tool Network (GLTN) Secretariat, based at UN-Habitat.

IFAD recognizes the importance of secure tenure of land and natural resources for inclusive rural development and poverty eradication and support for land and natural resource tenure security and invests in broad agricultural and rural development projects and programmes in a bid to maximize the impacts of tenure security measures on project outcomes and on higher level poverty eradication and inclusive development outcomes. This approach, however, presents challenges in identifying and estimating the amount of investment made in tenure security measures as they are often part of other activities or broader components or subcomponents and not always clearly distinguishable. It can also present challenges in attributing and measuring the impact of tenure security measures on project outcomes.

Summary of proceeding report

Opening and Introduction Session: Project background and Keynote speeches

The workshop began with welcoming remarks from Byron Anangwe, RCMRD and a brief overview of GLTN/UN Habitat and IFAD work in the region outlining the land tenure situation in developing countries and specifically on Eastern and Southern African context by Solomon Mkumbwa, the Coordinator of the TSLI-ESA regional project at UN Habitat. He presented a summary of the TSLI-ESA Project 2015 to date including the normative and operational activities accomplished at regional and country level in the five TSLI-ESA thematic areas as:

1. Mapping

2. Land and Water rights

3. Group Rights

4. Women access

5. Inclusive business

Finally, he outlined the objectives and expected outputs of the regional training of Trainers (ToT) programme on the integration of land tenure monitoring in development projects using geo-spatial technologies.

This was followed by key note speeches by the representatives and joint conveners of the workshop; GLTN's Unit Leader-Oumar Sylla and Dr. Hussein Farah, Director General, RCMRD. Their presentations contextualized the workshop and set the pace for the eight day learning event.

Session 1 PART 1: Land Tenure Issues in East and Southern Africa
This session consisted of participants presentations of their project/ programme specific experiences on the land tenure situation in relation to monitoring and evaluation and integration of geospatial technologies in land tenure monitoring. Projects presented on project/programme goals and objectives; interventions on land tenure security; how projects/programmes monitor and evaluate land tenure interventions; land tenure issues confronting project/programmes; and existing tools/approaches employed by the project/programme in addressing the identified issues.

Session 2: Country Case Analysis; Common Issues and Best Practices
This session consisted of discussions of the presentations in the session one, land tenure common issues and those standing out in the IFAD supported projects were identified and briefly presented to the class. The session provided a learning tone for the participants and enabled the participants to familiarize themselves on how different projects can learn from each other.

Session 3: Introduction to Monitoring and Evaluation and Linkage to Geographic Information Systems
In this session, the group was introduced to the concept of Monitoring and Evaluation and the importance of indicators in M and E as well as the linkage between GIS and the same. A practical case in one IFAD project was selected and the class had an exercise looking at the following:

- What is to be monitored; why monitor?
- How would they monitor?
- What to evaluate? Why evaluate?
- How does one evaluate?

The class also learnt how to phrase monitoring and evaluation questions. This exercise was followed by a group work breakout session in which participants were organized in seven groups, each consisting of a balanced number of M and E and GIS specialists to look at yet another practical case of an IFAD project in relation to the above questions.

Session 4: Introduction to Geospatial Information Systems and Linkage to M and E

This session began with the participants being introduced to the concept of Geographic Information Systems (GIS) and how Monitoring and Evaluation and use of GIS work together for IFAD project/program benefits. The trainees were taken through the process of developing a suitable M and E-GIS system for their projects, the GIS data types to be integrated in GIS system, creating maps supporting monitoring and evaluation systems and using the GPS gadgets for data collection.

This was followed by a practical within the RCMRD grounds to collect points of relevance which were later used to create maps. There after participants used the maps to link GIS and M and E thanks to lessons of an earlier session on how spatial data can be used to show changes and outcomes occurring overtime.

Session 5: STDM country case studies

Three countries; Kenya, Zambia and Uganda presented on experiences of using STDM as a tool of capturing a continuum of land rights. In this session, participants learnt how this tool has proved to be flexible and used to capture overlapping claims to land providing a complete picture of people-land relationships. A question and answer session followed after each presentation.

Session 6: Action Planning and Risk Management

This session focused on charting the way forward and drawing up strategic plans. Guided by several questions, participants were tasked to identify several land tenure indicators which they were to monitor in their respective projects after the training, the proposed methodology of data collection, analysis and reporting. Participants were also to present how they would integrate GIS data and technology in their respective projects' monitoring and evaluation systems as well as mitigating measures to counter impeding factors that might act against the successful implementation of this exercise.

Structure of the Proceedings

Opening Session- Project Background and Keynote speeches
- Overview of TSLI-ESA by Solomon Mkumbwa
- Keynote Speeches by GLTN's Unit Leader-Oumar Sylla and Dr. Hussein Farah, Director General, RCMRD

Session 1: Land tenure Issues
- Overview of the Presentations
  - Sustainable Agriculture Production Programme (SAPP) In Malawi By Kefasi Kamoyo
  - Strengthening Customary Land Rights In Zambia By David Katungula Musa
  - Community Based Integrated Natural Resource Management Project (CBINReMP) In Ethiopia By Tashu Minale Mengist
  - Vegetable Oil Development Programme Phase II In Uganda By Max Tusiime
  - Smallholder Dairy Commercialization Programme (SDCP) In Kenya By Michael Kibiego
  - Upper Tana for Natural Resources Management (UTANArmp) In Kenya By Elizabeth Kariuki
  - Safe Land (*Terra Segura)* In Mozambique By Francesco Rubino
  - Bagamoya Sugar Infrastructure & Community Development Project (BASIC) In Tanzania By Teri Gilead
  - Lower Usuthu Smallholder Irrigation Project (LUSIP) In Swaziland By Nxumalo Bongekile and Rhoda Dlamini.
  - Youth Agrarian Society in Zimbabwe By Farirai Mageza
  - Ministry of Environment, GIS Department Comoros by Nair Aboubacar
  - Burundian Office for Environmental Protection (OBPE) In Burundi By Jonathan Hatungimana

Session Two: Country Case Analysis; Common Issues and Best Practices
- Overview of the Plenary discussions

Session Three: Introduction to Monitoring and Evaluation and Linkage to GIS
- Overview of Presentations
  - Monitoring and Evaluation integration into GIS by Joseph Mwaura Murage, Regional Centre for Mapping Resources for Development

Session Four: Introduction to GIS and Linkages to GIS
- Overview of presentations

Session Five: STDM Country Case Studies
- Overview of Plenary Discussions
  - Social Tenure Domain Model (STDM) for Improved Tenure Security of the Urban Poor-Kenya: By Mutono Nyamai- Pamoja Trust.

- Mapping Land and Natural Resource Rights Experiences– Uganda: By Tamale Frank - Vegetable Oil Development Project Phase II.
- STDM pilot by in Mungule Chiefdom in Chibombo District by Katungula David, Peoples Process on Housing and Poverty projects

Session Six: Action Planning and Risk Management
- Combined report of thematic Groups

The full agenda of the workshop is provided in Annex 1, followed by a list of Workshop Participants in Annex 2, and a complete list of the presentations in Annex 3. The Workshop Evaluation is in Annex 5 while the training GIS evaluation diagram and Break out group discussion reports are in Annex 6 and 7 respectively

An overview of the learning event
The training session was officially opened with welcome remarks and keynote addresses by both Global Land Tool Network (GLTN) and RCMRD representatives of the joint regional

learning event. The event held at RCMRD in Kasarani, within the capital Nairobi brought together a total of 26 participants drawn from 11 countries from the East and Southern Africa region, namely; Burundi, Comoros, Ethiopia, Kenya, Malawi, Mozambique, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.

GLTN/UN Habitat and RCMRD are implementing the 'Land and Natural Resources Learning Initiative for Eastern and Southern Africa (TSLI–ESA)' whose goal is to strengthen poor communities' tenure security on land and natural resources through geo-referenced land records documentation using the open-source geospatial technologies. Throughout sub-Saharan Africa, land is a fundamental issue for economic development, food security and poverty reduction. Land is crucial to the economies and societies within the region, contributing a major share of GDP and employment in most countries, and constituting the main livelihood basis for a large portion of the population. In many areas, however, land is becoming increasingly scarce due to a variety of pressures, including demographic growth.

The TSLI-ESA project in selected countries in East and Southern Africa aims to contribute to the development and integration of pro-poor tools and approaches for securing land and natural resource rights into development programmes to promote self-reliance of poor people and communities, protect and enhance their natural resource base, improve access to agricultural land and ensuring food security of the vulnerable, including women, minorities and indigenous groups. This is based on the belief that property rights to land are the most powerful resources available to people to increase and extend their collection of assets beyond land and labour to the full portfolio necessary for sustainable livelihoods, i.e., natural resources, social, human, and financial capital as well as physical assets.

In recent years, there has been growing debate on the linkage between tenure security and productivity especially in Africa where land has been perceived as a relatively abundant factor of production. Much of this debate is shaped around the question of whether customary land tenure systems offer sufficient security of tenure. The assumption has been that enhancing access to land, security of tenure, or sustainability of land resource use will ultimately enhance welfare, including food security. However, a linkage is rarely empirically demonstrated and to this end, the training organized between the 11th – 19th of April, 2016, aimed at instilling technical skills among GLTN partners in IFAD supported projects and programmes in East and Southern Africa on how to monitor land administration and tenure issues and thus develop a reliable practice of monitoring and evaluation (M&E) for IFAD project/programmes using geo-spatial technologies.

The training delved into the practicality of integration of land tenure monitoring through use of geo-spatial technologies to measure the impact tenure security on project outcomes in IFAD projects/ programmes. This approach can help to answer queries into the sustainability of results obtained to benefit the target groups based on the approximate amount of investment. The training was also expected to build partnerships with other IFAD supported projects/programmes in supporting tenure security measures.

Participants drawn from at least eleven countries within the East and Southern African region included technical persons from various IFAD investment programs and projects as well as government personnel supporting these projects in their respective countries. The training was themed on both monitoring and evaluation and GIS aspects of the training, participants included monitoring and evaluation staff, land tenure technical staff and GIS specialists from various IFAD investment projects/programs and country line ministries supporting such initiatives. This would ease learning and the transferability of the skills and knowledge into their respective projects after the training.

The programme of the training included lecture type interaction on the concepts of Monitoring and Evaluation and Geospatial technologies and relevance to the IFAD projects/ programmes. The learning session opened on a positive knowledge sharing platform as participants shared their country experience of land tenure situations in their individual countries and in the contexts of their project/programs interventions (issues on land tenure, tools/approaches used and lessons/best practices). They took home skills on how collect data by way of GIS and integrate the information into their own Monitoring and Evaluation systems thus being able to create and interpret maps and communicate results for project/ programme performance.

The training also involved a field excursion to the Mwea Irrigation Scheme in Embu to operationalize the GIS skills developed within the week. This project provides for a good case study with fairly similar land issues (women's land rights, large scale land based investments, land administration, land conflicts, customary tenure) as those experienced by in other development projects/programmes where the training participants hailed. It is here that the group tested their newly acquired knowledge, analysing and reflecting upon issues both individually and in groups. Participants also looked into the importance of an integrated approach to land productivity and investments; the use and management of land and water resources and the linkage between land tenure rights regimes and water rights regime.

Opening and Introduction

Opening Session: Keynote speeches and Project Background

The learning event brought together a total of 26 participants representing eleven countries within the East and Southern Africa region. The participants included technical persons from various IFAD investment programs and projects as well as government personnel supporting these projects in their respective countries. The facilitator, Byron Anangwe, welcomed everyone to RCMRD Nairobi and invited Solomon Mkumbwa of GLTN secretariat/ UN Habitat to officially open the proceedings.

Overview of TSLI-ESA Project within the 2015-2016 period and setting the Scene

The TSLI-ESA project coordinator, Solomon Mkumbwa, at GLTN/UN Habitat gave an overview of the project for the past year in different country contexts, East and Southern Africa. He highlighted the learning event as being part of the capacity development component of the project and critical to especially large agricultural projects/programmes involved acquiring land and in some cases the displacement and resettlement of people, a process that affects those with fragile tenure security and the very poor who are the primarily are beneficiaries of these projects. He made apparent the need to document and report impacts and effects of such projects/programmes interventions and hence this training at most opportune time.

Opening Remarks from Dr. Hussein Farah, the Director of RCMRD

Dr. Hussein Farah appreciated the participants who attended the training noting that Monitoring and evaluation training is critical in improving performance and achieving results to benefit our countries. He admitted that the training on integrating GIS and M&E was timely in ensuring success of any institution or programme, acknowledging the training as critical in improving performance of development projects to benefit target beneficiaries. Emphasizing on the importance of GIS as a tool of analysis, he observed that GIS is not simply a map to show location but also a tool that provides for analysis; capable of analyzing different sets of information, changes, trends and visualization of the same to guide decision making by policy makers, government institutions and local communities who can perform participatory mapping, necessary for promoting sustainable development and a just world. He thanked GLTN and IFAD for the cooperation in training and capacity development, and warmly welcomed the participants. He welcomed Oumar Sylla, GLTN's unit leader, to officially open the learning event.

Key Note Address from Mr. Oumar Sylla, GLTN's unit leader and the chief guest

Mr. Sylla started by appreciating all participants for attending the training and the facilitators for the training objectives. He informed the group that he could not understate that within the land dimension is the issue of land tenure security is critical especially as it relates to the peoples' relationship with land and vice versa. He overemphasized that an integrated approach to land is needed if progress is to be made in implementing SDGs in the 2030 Agenda for Sustainable Development.

It was noted that monitoring and evaluation as a practice provides evidence and as such evidence based information on land which can estimate, determine, or justify investments in land to improve tenure security. He added that notable global progress had been made that rightly captures the importance of land as a primal element in eradicating poverty, empowering women, improving people's lives and sustainable management of natural resources and in the same breath tasked the participants to begin working towards implementing these goals stressing that the indicators on progress of SDGs will come from those within the room monitoring and reporting at community/ local levels. This documented process will continue to justify investments made within the various land development projects and programmes implemented by the participants present in the training.

In addition, continued to stress the importance of evidence based reporting that could only happen through monitoring from the local levels especially on the SDGs but also to decision makers on the value of and for investing. He indicated to the participants that as difficult as it is to monitor tenure security, this approach provides an evidence based approach in doing so. He indicated that GLTN is a platform whose main value is in convening organizations and institutions thus the onus is on GLTN to continue to strengthen partnership with IFAD and RCMRD through developing a sustainable collaboration and a thematic way of tackling matters tenure security. He urged the trainees and conveners to draw lessons of the achievements so far within the 3 year partnership with IFAD and mull over what needs to be done moving forward to make this a more solid and robust engagement and most importantly, to focus on land tenure security for the different programme and project beneficiaries represented by the trainees.

Mr. Sylla concluded by thanking RCMRD for convening the training and indicated that he hoped to strengthen the existing partnership especially with regard to enhancing accessibility of information and cost sharing on the same as both organizations work out a more comprehensive approach to enhancing tenure security.

Participant Expectations of the Learning Event

The workshop began with an introductory session in which the participants introduced themselves. The facilitator, Mr. Byron Anangwe from RCMRD tasked participants to walk round the room for a minute and talk to persons they had never interacted with before. The icebreaker for the session was quickly followed by participants formally introducing themselves, speaking about their projects and programmes within their organizations, their country of origin and their expectations in the workshop.

The Facilitator described the overall process and objectives from the workshop:

- Assessing the Monitoring and Evaluation framework of IFAD supported projects/programmes
- Evaluating the need for the integration of GIS technology on land tenure monitoring
- Assessing institutional capacity of projects/programmes for geo-spatial data collection and analysis

Overall Objectives

- Acquire knowledge on how to integrate GIS in their activities (resources physical and soft skill)
- Identify key land tenure indicators that would need to be tracked using geo-spatial technologies
- Produce and interpret maps to show results on land tenure related issues.
- Formulate plans for in-country follow-up, application and learning as well as possible adoption
- Form core group of champions for IFAD/GLTN

Participants were asked to identify their hopes and concerns for the workshop. Many of the participants indicated that they hoped to get practical knowledge on using GIS and geo spatial to improve their skills, acquire experience and knowledge, learn how to represent land tenure issues on maps, and how to play with STDM to produce. Some participants indicated they wanted to learn more on monitoring systems of land tenure to improve on data collection.

Section Two:

The regional learning event

Session 1 PART I: Status on Land Tenure – Type, Issues, Tools/Approaches, Lessons

The focus of this session was for project/programmes representatives from different countries to present on the land tenure types that exist in their countries, the issues that affect their project as a consequence of the tenure types, the tools and approaches used to counter or mitigate against these issues as well as lessons learnt in the process of project intervention.

The session gave way to an analysis of common issues surrounding these projects and lessons learnt which were summarized at the end of this session for purposes of further learning. The analysis presents the country, project undertaken (project present in the learning event) and land tenure issues and in some cases the project's M&E system. In cases where there was no project focal person present, the participant gave an overview on land tenure issues in his/her country.

Presentation: Sustainable Agriculture Production Programme (SAPP) in Malawi by Kefasi Kamoyo

This programme concentrates on enhancing agricultural productivity and improving rural food security through simple, affordable technologies, which help smallholder' farmers Bridge the gap between actual and possible food-crop yields in Malawi.

The programme aims to contribute to a reduction of poverty and improve food security among 200,000 rural households.

LAND TENURE

Malawi's 1965 Land Act and the 2002 Land Policy recognize three categories of land: public land, private land, and customary land. Tenure types in Malawi include freehold, leasehold, and customary tenure. The predominant land tenure type in Malawi is customary land tenure (Between 65% and 75% of Malawi's land is customary land)

Land Tenure Issues/ Challenges

- Very fragmented land holding sizes; most smallholder farmers hold less than 1 hectare
- Field/land boundaries conflicts; Due to the fluctuations in weather patterns and the vulnerability of the country to drought, land along water sources and wetlands is commonly the subject of disputes. So is land in peri-urban area where there is conflict between long-term occupants and migrants.

- Traditional marriage systems (matrilineal and patrilineal) where a man/woman loses rights to use the household land in the event of divorce or death or his/her spouse
- Tenure insecurity; the potential of spouse's death or the possibility of divorce makes landholders under customary land vulnerable to tenure insecurity, because they and their children may be forced to leave the land in such events (death and divorce). Orphans also have insecure property rights; in case of death of both parents, relatives often take the deceased parents' land, dispossessing the children.
- Women are biased by the culture from enjoying equal access, control, and ownership of land

Presentation: Strengthening Customary Land Rights in Zambia by David Katungula

The presentation was based on the experience of the Strengthening Customary Land Rights in Zambia project which is spearheaded by People's Process on Housing and Poverty in Zambia (PPHPZ), a non-governmental organization established in 2005. The project works to support the work of a grassroots movement of the urban poor termed as Zambia Homeless and Poor People's Federation (ZHPPF). The project enhances community's capacity in influencing land regularization and slum upgrading.

LAND TENURE

Under the 1995 Land Act and the draft constitution, land in Zambia is vested in the Presidency. The main land tenure types include: - customary, Leaseholds of state land and squatting.

Securing Land Rights

Land is obtained through inheritance, land allocation, purchase and leasing. In patrilineal communities, customary land is passed to a male member of a clan and in matrilineal communities mostly in Northern Zambia; land is passed on through a female lineage. Traditional chiefs allocate land to men and women.

Current Challenges on Land Tenure

- Lack of evidence to prove ownership
- Male domination; In both the matrilineal and patrilineal marriage systems, the male head of household usually exercises primary control over the land
- Land conflicts: these are related to boundaries and encroachments.
- Traditional land tribunal conflict resolution mechanism; bribes are entertained in the dispensation of justice involving land disputes by some traditional leaders.

Tools and Approaches Adopted by the project

- Evidence based approach using STDM and QGIS which allows for the capture of multiple land rights.

Presentation: Community Based Integrated Natural Resource Management Project (CBINReMP) in Ethiopia by Minale Tashu Mengist

The presentation focused on the Community Based Integrated Natural Resource Management Project (CBINReMP) in Ethiopia project. This project targets the Lake Tana watershed in North-Eastern Ethiopia seeking to enhance the access of poor rural people to natural resources such as land and water, and to introduce improved technologies for agricultural production, mainly through sustainable land management. The ultimate goal is to improve the livelihood for about 450,000 households living around Lake Tana watershed through combating land degradation adopting Sustainable Land Management practices.

M&E Practices

The presentation described the organizational set up within the project which allows for an elaborate M&E framework because the practice is taken up at every stage of the project. The presenter shared a diagrammatic presentation of the project's organizational framework (below) to visually demonstrate the bottom-up approach for planning Monitoring and Evaluation that the project employs.
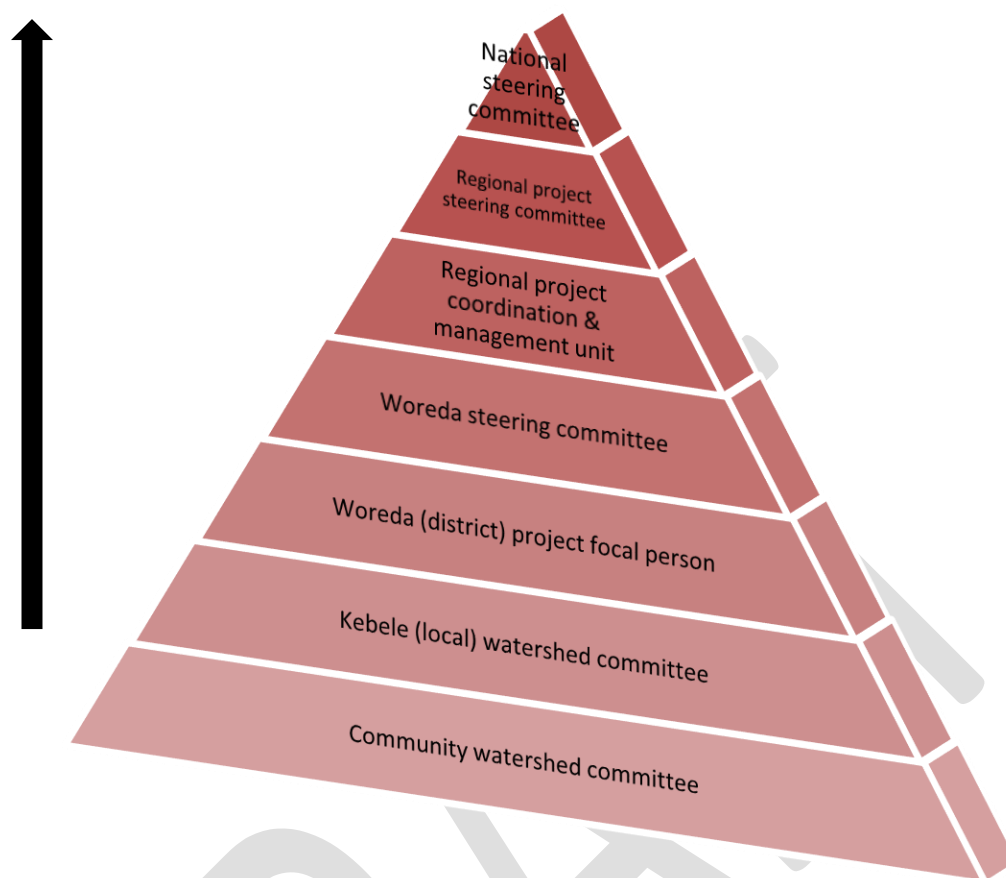
Below are some of the project's M&E practices

1. Periodic Reports; the Community watershed committees provide monthly reports to the Woreda focal persons who aggregate them and provide the same to the Woreda steering committees monthly. The Regional Project and Coordination management unit receives these reports quarterly from the Woreda steering committees. The unit aggregates these reports and avail them to the regional project steering committee bi-annually who also avail the information bi-annually to the National steering committee.

2. Performance Review Meeting and workshops

3. Demand driven and continuous technical follow-up

4. Event focused support –when gaps are identified, monitoring is conducted to ascertain the cause of these gaps and how they can be addressed.

The presenter pointed out that in Ethiopia, land is vested by law in the government and people of Ethiopia. People have land use rights that are transferable through inheritance, gifting, divorce and rent. Challenges include:-

- Lack of clarity or assurance regarding the rights of peasants, pastoralists, women and others to manage, access, or use land, forest, water, and mineral resources upon which they depend.
- Inter-pastoral conflicts and conflicts between, the government, pastoralists and farmers brought about by population growth, frequent drought, resource degradation, and encroachment or expropriation of rangelands.
- There is considerable pressure and interference on customary management of pastoral lands particularly in those pastoral lands that contain river basins in which the State has initiated irrigation developments.
- Traditional practices curtailing rights of women to land, the lack of awareness on the part of both the spouses on the rights of women to land and the absence of strict observance of the laws by government institutions. This oppresses the right of married women to land.

Several approaches exist to mitigate on the land tenure situation in Ethiopia which include;

- Low-cost certification of plots; more than 20 million plots have been granted certificates in a much decentralized process.
- Issuing of land holding certificates in the name of both spouses as provided in the land laws of the Federal Government. The wife also must give her consent where the husband enters into a transaction with the land jointly owned.
- Demarcation of communal grazing land
- Documentation and computerization of private land
- Sensitization workshops for women on their ownership right

Presentation: VODP II; Vegetable Oil Development Programme Phase II in Uganda by Douglas Mbuga Kato Nyombi

This presentation by the Vegetable Oil Development Programme Phase II project specifically aims at "Sustainable poverty reduction in the project area". The development objective is "to increase the domestic production of vegetable oil and its by-products, thus raising rural income for smallholder producers and ensuring the supply of affordable vegetable oil products to Ugandan consumers and neighboring regional markets" The project purposes to increase domestic production of vegetable oil and its by-product; and to increase oil palm supply to national and export market.

Status of Land Tenure in Uganda

The Constitution (1995) vests land in the citizens and recognizes four historic forms of land tenure; customary, leasehold, freehold, and *mailo* (a customary form of freehold land). With the exception of Buganda which is mainly held under *Mailo*, land in other parts of Uganda is held mostly under the customary tenure.

In Kalangala where VODP 2 is located, majority of the farmers are either on private *mailo* land, public land and the recently returned Buganda kingdom land as *Kibanja* holders.

The main challenges are:-

- 80-90% of the smallholder farmers have no titles for the land on which they have grown their palms, and have built their homes.
- The recent transfer of land from public land to the Buganda Kingdom in 2014 where the Government of Uganda returned land to the Buganda Kingdom including part of the "public land" in Kalangala has stirred new fears amongst farmers. Some oil palm farmers on public land are not sure whether the land on which their oil palms were grown is still public land under the District Local Government or is now Buganda Land Board Land and some have abandoned their gardens due to the fear that they will not benefit from that land. This threatens the sustainability of the palm oil project.
- Boundaries where farmers have cultivated and built their homes have not been demarcated
- Women rights to the palm fields are curtailed by male dominance

Some of the approaches VODP uses and lessons learnt include:-

- Through the STDM process, transparency has been cultivated. Farmers see this as an opportunity of knowing clear demarcations and sizes of the farms and as such very useful in resolving plot boundary conflicts.

- Through the STDM process, overlapping claims of plot boundaries and corresponding land rights have been revealed. This has provided a platform through which farmers and respective land owners can negotiate and reach a more informed agreement on these overlapping claims.

- GPS skills have been instilled among the enumeration team and the KOPGP field extension staff

How VODP 2 conducts monitoring and evaluation

- Send field questionnaires through field extension staff

- Regular meetings
- Regular interactions with farmer's leaders
- Mid-term surveys
- Validation of project work plans, budgets and assessment of performance of their gardens.
- Identification of issues not covered in field reports

Presentation: Smallholder Dairy Commercialization Programme (SDCP) in Kenya by Michael Kibiego

This presentation focused on elucidating the Smallholder Dairy Commercialization Programme (SDCP) which fosters market-driven development of Kenya's informal dairy industry, while working with poor smallholder dairy producers and traders to strengthen their capacity to respond to market opportunities. The programme aims to increase income of poor rural households that depend substantially on production and trade of dairy product for their livelihood.

The land tenure in Kenya is either private (freehold), public, and community land held in trust by county governments for the benefit of a community.

The presenter summarized the land tenure issues within the project area to include:-

a) **Highland Areas**
- Access to land by women/youth is a huge problem
- Forest encroachment and trespassing
- Resource overuse/ degradation of land, water, forest and pasture (tragedy of the commons)

a) **Lowland Areas**

- Tragedy of the commons[1]/ resource overuse on the pastures and salt licking areas
- Land conflicts
- Encroachment of public and communal land and natural resources.

SDCP has developed indicators for the programme and they monitor against each indicator through:-

- M&E surveys (impact, households) and farmers
- Quarterly, mid and annual reports

- Members/ beneficiary records; community-based monitoring and evaluation booklet which allows farmers to monitor their activities and take informed decision on investments

Presentation: UPPER TANA FOR NATURAL RESOURCES MANAGEMENT PROGRAMME (UTaNRMP) in Kenya by Elizabeth Kariuki

The goal of this project is to contribute to the reduction of rural poverty in the Upper Tana River catchment through increased sustainable food production and incomes for poor rural households, as well as sustainable management of natural resources. The target area for the project is the Upper Tana catchment, covering 6 of the 47 counties in Kenya. Around 205,000 poor rural households – including smallholder crop and livestock farmers, agro-pastoralists, fishers and rural traders – are expected to benefit from the initiative.

The project has many objectives which include; increased sustainable food production and incomes for poor rural households living in the project area; sustainable management of natural resources for provision of environmental services; and sustainable management and use of water and other natural resources.

Land Tenure in the project area

A significant number of the people in this region possess private land with title deeds. Generally, farmers with no title deeds enjoy relatively secure land rights, given that most of the land is inherited. Lack of title deeds has been attributed to the slow registration processes and in some cases family disputes.

The presenter highlighted the land tenure issues facing the project as outlined below:-

- Double land allocation
- Forest land encroachment; people cultivating in the forests
- Human-wildlife conflicts
- Squatters; there are people who hold no title deeds for the land they cultivate and live on
- Incidences of family conflicts as family members fight for a share of land or in cases where the person registered as the land owner died without clear known succession over the land.
- Land fragmentation

Presentation: SAFE LAND (*TERRA SEGURA)* in Mozambique by Francesco Rubino and Daniel Queface

The project model targets approximately 5,000,000 individuals and 4,000 communities and has been ongoing since 2015 through to 2020. The project goal is to create an efficient,

transparent and reliable land management system. The project's main objectives are to; consolidate the land administration and management system; protect local community rights, while promoting citizenship and sustainable development; and to deliver information about community land rights and other citizens in general.

The State of Mozambique owns all the land in the country, and regulates all the concession of land use rights. The project faces a myriad of issues and challenges including:

- Population explosion; competition over available land.
- Limited access of information on land laws to communities and investors
- Difficulty in clearly identifying and delimiting land

The project has responded to these challenges through clear interventions on tenure security through:

- Sensitization on radio; newspaper and capacity building (land law- service providers; NGOs; communities; national staff)
- Land surveys
- Entering data into the Land Information and Management System- "SIGIT"
- Collaboration with directorate for territorial planning in the elaboration of land use plans.
- Updating the National Cadaster

However, there are gaps in M&E and GIS systems including; Under-staffed teams in M&E; Harmonization of methodologies used by different entities; and M&E capacity and knowledge.

Presentation: Bagamoya Sugar Infrastructure & Community Development Project (BASIC) in Tanzania by Teri Gilead

The Bagamoyo Sugar Infrastructure and Sustainable Community Development Programme is a public-private sector programme which aims to empower 27 villages of Kiwangwa, Matipwili and Gama/Kitame in Bagamoyo District to seize income generating opportunities created by the sugar industry. The project is to sit on over 20,000 hectares of land for the next 99 years and is expected to raise the incomes and improve the livelihoods of smallholder farmers benefitting from this investment and reduce the country's dependence of sugar import.

In Tanzania, all land is owned by the state, with the president acting as trustee with the power to lease the land to others.

The project highlights land tenure issues affecting the project include land disputes, caused by a lack of clear regulation and information as such there is a row on relocation and compensation of farmers living on the earmarked land; and limited community awareness on rights over the land they dwell on which makes them vulnerable to exploitation.

The project has not yet commenced and the government and partners involved in this project are seeking solutions to key outstanding issues such as the question of compensation which has delayed its start.

Presentation: Lower Usuthu Smallholder Irrigation Project (LUSIP) in Swaziland by Nxumalo Bongekile and Rhoda Dlamini

The project, Lower Usuthu Smallholder Irrigation Project (LUSIP), is investing in a large-scale irrigation system for the area to create favorable conditions so that farmers in the lower Usuthu basin and enable them commercialize their activities and develop sustainable, high-value crop production.

In Swaziland, land tenure is broadly of two types, Swazi National Lands (SNL) which is controlled and held in trust by the King and allocated by tribal chiefs according to traditional arrangements, and Title Deed Land (TDL) or land held by freehold tenure also known as individual tenure farms.

The land where the LUSIP programme sits is under the Swazi National Lands tenure type. Chiefs within chiefdoms allocate and oversee the land on behalf of the king (head lease from the king) Land rights by customary owners whose land is being irrigated are relinquished through the chief and allocated to water user groups, of which the previous owners are members. This process is being documented through an "enhanced" Chief's Letter of Consent. Households pull together their land and renounce it to the chief who then signs and issues a chief's letter of consent (sub leasing land to farmers associations) through chiefdom development trusts.

The presenter highlighted some of the tenure issues as not only chiefdom boundary conflicts but also conflict within Farmers Associations and the fragile Land Tenure Policy and legal frame work that allows for arbitrary evictions.

However some of the tools and approaches the project has taken on include:-

- Mapping; this is done with the help of community leaders and Farmers Association members. Strengthening Women's Secure Access to Land; At Farmers Association level, gender equality and social equity trainings are offered.

Presentation: Youth Agrarian Society in Zimbabwe by Farirai Mageza

The organization's overall goal is to promote participation of young people in agrarian issues as a means towards poverty alleviation and enhancing food security in Zimbabwe. The project, Securing Urban Land Tenure Youth in Informal Settlements aims to identify and formally register secure tenure of land in informal settlements.

The tenure types in Zimbabwe include: (1) freehold ownerships; (2) occupancy rights to land in communal areas; and (3) leases of land granted by the government through various redistribution schemes. Leases are generally granted for periods of up to 99 years.

The presenter highlighted the land tenure issues faced in project as the nationalization of all agricultural land created confusion as to the transferability of land. Land tenure insecurity is extremely high in Zimbabwe, and agricultural production has suffered. Further, commercial farmers, as well as farmers who have been resettled on taken land, remain uncertain about the strength of their property rights.

The Zimbabwean Constitution allows for women to legally purchase and hold land in Zimbabwe, but it also permits customary law and traditional practice to trump principles of equality between the sexes in matters of personal law. For instance, customary practices tend to discourage women from applying for land in resettlement areas in their own name which means that Zimbabwean women have no legal basis to assert equal rights to inherit and hold land.

Some of the key activities that the project focuses on include land administration information dissemination, advocacy for pro-poor (youth) land policies, training on tenure security and land application and registration.

Indicators identified by the presenter as:-
- Number of youth and policy makers attending meetings.
- Number of information factsheets shared (posters, email, and social media)
- Number of engagement platforms with policy makers.
- Number of training workshops conducted
- Number of successful land application and registration exercises

According to the project, the land tenure issues affecting the project comprise of;

- Lack of a legislative framework providing for the regularization of informal settlements in urban and peri-urban areas.

- Lack of formal recognition of informal settlements thus they are termed as illegal settlements.
- The absence of ownership status for the land occupiers and threats of arbitrary evictions are rampant.
- There is inadequate service delivery (no sewer, water, roads, electricity) in the informal settlements.

The project carries out monitoring and evaluation through:-

- Follow up with land officials (Government, ministries, Land Administrators)
- Activity based reports.
- Regular visits to the community to gather feedback.

Some of the approaches the project uses in managing land and natural resource rights issues incorporated are:-

- Engaging with local authority and settlement dwellers among other stakeholders to negotiate formal recognition of the informal settlement lands.
- The use of STDM to capture a multi-layer of land rights.
- Application for the registration of land occupied to formal authorities in Zimbabwe.
- Educating communities of their land rights as enshrined in the constitution.
- Encouraging joint/spouse registration of land.

Lessons proposed by the presenter based on the project experiences were:-

- Need to empower communities with information and skills to uphold their land rights.
- All stakeholders should be engages on land matters.
- It is critical to educate women and youth on land right stipulated in the constitution.

GIS Department, Ministry of Environment of Comoros by Nair Aboubacar

Three legal land systems coexist in Comoros. These are customary oral law, the Islamic title to property, and modern identification. Four basic categories of land in the Comoros: untitled land; titled land; State Domain; and village reserves.

- A large proportion of the population (majority of the peasant farmers) holds small parcels without title. Most of these parcels are held and managed through one of the island's customary tenure systems, although the local qadi (Muslim judge) may grant a "deed" to the land. Such deeds, which have been issued for about one quarter of these small parcels, codify inheritance rights, but they do not secure individual ownership in the eyes of the state.

- A small number of landowners have title to the most productive land (arable land) which they use for export crops. These kinds of lands are limited and with one of the highest population densities in the world.
- Land fragmentation is a big problem especially with the high population pressures.
- No tenure reform policy is currently being discussed.
- Women are not able to inherit land in Comoros. However, when she marries, a Comorian woman is given a house and arable land on which she has usufruct rights. Men hold the management rights, deciding which crops to plant where and what portions of the land will be available to the women.

Presentation: Burundian Office for Environmental Protection (OBPE) in Burundi by Jonathan Hatungimana

The Burundian Office for Environmental Protection (OBPE) under the Ministry for Water, Environment, Land Management and Urban Development oversees the environmental conservation and sustainable development in the country. It is implementing a project, 'Protected Areas Efficacy Through Bio-diversity Conservation' aimed at raising awareness to self-management capacity of 2 Protected Areas through ecotourism development.

Burundi's formal law recognizes state and private land tenure types. State land includes land classified as public land (e.g., rivers, lakes) and private state land, which includes all state land not classified as public, including vacant land, forests, land expropriated for public use, and land purchased by the state. Under the law, all land that is not occupied is considered state land. Temporary rights of occupation are available on land classified as private state land.

The presenter identified land tenure issues as:-

- Rights to land are acquired by inheritance through a patrilineal inheritance system.
- Both custom and law restrict women's access, use and ownership of land. Women must rely on relationships with male relatives to secure access to land.
- Ambiguity and confusion brought about by the competing documentation due to uncoordinated issuing of land titles and certificates by different agencies. This leads to land disputes.
- Very violent disputes over claims of ownership and boundaries often within families. Land disputes are also exacerbated by the waves of displacement and return of people after violent wars.

An issue affecting the project is the Forest Code governing use and interaction with forests which is yet to be enforced that will conflict with the excessive dependence on forest resources for livelihoods by a great majority of the Burundian population.

The main tools and approaches the project engages comprise of:

- Recognizing the role of the local communities through new approach of management.
- Empowering neighboring communities by providing alternative income generation activities such as bee keeping.
- Enhancing the land cover; tree planting around the Protected Areas (PAs).

Country/ Programme (Goals and objectives)	Tenure Type and Issues (Challenges).	Tools/ approaches/ interventions	Results/ impacts and lessons
Malawi **-Sustainable Agriculture Production Programme (SAPP)** The programme concentrates on enhancing agricultural productivity and improving rural food security through simple, affordable technologies, which help smallholder' farmers Bridge the gap between actual and possible food-crop yields in Malawi.	Freehold, leasehold, and customary tenure which is between 65% and 75% of Malawi's land. -Very fragmented land holding sizes -Field/land boundaries conflicts. -Traditional marriage systems (matrilineal and patrilineal) where a man/woman loses rights to use the household land in the event of divorce or death or his/her spouse -Tenure insecurity; for widows and orphans under customary land vulnerable to tenure insecurity, because they and their children may be forced to leave the land in such events (death and divorce). Orphans also have insecure property rights; in case of death of both parents, relatives often take the deceased parents' land, dispossessing the children.	-Mounting of on farm demonstrations and adaptive research trials on conservation agriculture, seed multiplication will require a piece of land. -Establishment of farmer field schools and farmer business schools which may need to occupy a piece of land. -Establishment of pastures for livestock.	Some of the key lessons relate to need to develop within the project skills and knowhow of project staff.
Zambia **-Strengthening Customary land rights by the People's Housing and Poverty in Zambia (PPHPZ)** The project enhances community's capacity in influencing land regularization and slum upgrading	Customary, Leaseholds of state land and squatting. -Lack of evidence to prove ownership -Male domination; In both the matrilineal and patrilineal marriage systems, the male head of household usually exercises primary control over the land -Land conflicts: these are related to boundaries and encroachments. -Traditional land tribunal conflict resolution mechanism; bribes are entertained in the dispensation of justice involving land disputes by	-Evidence based approach using STDM and QGIS which allows for the capture of multiple land rights.	

	some traditional leaders.		
Ethiopia **-Community Based Integrated Natural Resource Management Programme** The goal is to improve the livelihood for about 450,000 households living around Lake Tana watershed through combating land degradation adopting Sustainable Land Management practices	Land is vested by law in the government and people of Ethiopia. People have land use rights that are transferable through inheritance, gifting, divorce and rent. - Lack of clarity or assurance regarding the rights of peasants, pastoralists, women and others to manage, access, or use land, forest, water, and mineral resources upon which they depend. -Inter-pastoral conflicts and conflicts between, the government, pastoralists and farmers brought about by population growth, frequent drought, resource degradation, and encroachment or expropriation of rangelands. -There is considerable pressure and interference on customary management of pastoral lands particularly in those pastoral lands that contain river basins in which the State has initiated irrigation developments. -Traditional practices curtailing rights of women to land, the lack of awareness on the part of both the spouses on the rights of women to land and the absence of strict observance of the laws by government institutions. This oppresses the right of married women to land.	- Low-cost certification of plots; more than 20 million plots have been granted certificates in a much decentralized process. -Issuing of land holding certificates in the name of both spouses as provided in the land laws of the Federal Government. The wife also must give her consent where the husband enters into a transaction with the land jointly owned. -Demarcation of communal grazing land -Documentation and computerization of private land -Sensitization workshops for women on their ownership right -participatory integrated wetland ecosystem conservation.	
Uganda **-Vegetable Oil Development**	Four historic forms of land tenure; customary, leasehold, freehold, and *mailo* (a customary form of freehold land). With the exception of Buganda	-Through the use of STDM software, transparency has been cultivated. Farmers see this as an opportunity of knowing	

Programme To increase the domestic production of vegetable oil and its by-products, thus raising rural income for smallholder producers and ensuring the supply of affordable vegetable oil products to Ugandan consumers and neighboring regional markets" The project purposes to increase domestic production of vegetable oil and its by-product; and to increase oil palm supply to national and export market.	which is mainly held under *Mailo*, land in other parts of Uganda is held mostly under the customary tenure.	clear demarcations and sizes of the farms and as such very useful in resolving plot boundary conflicts. Overlapping claims of plot boundaries and corresponding land rights have been revealed. This has provided a platform through which farmers and respective land owners can negotiate and reach a more informed agreement on these overlapping claims. -GPS skills have been instilled among the enumeration team and the KOPGT field extension staff.	
Kenya **-Smallholder Dairy Commercialization Programme** Aims to increase income of poor rural households that depend substantially on production and trade of dairy product for their livelihood.	Private (freehold), public, and community land held in trust by county governments. -Access to land by women/youth is a huge problem -Forest encroachment and trespassing -Resource overuse/ degradation of land, water, forest and pasture (tragedy of the commons)	-M&E surveys (impact, households) and farmers -Quarterly, mid and annual reports -Members/ beneficiary records; community-based monitoring and evaluation booklet which allows farmers to monitor their activities and take informed decision on investments	
-Upper Tana Natural Resource Management Programme	To contribute to the reduction of rural poverty in the Upper Tana River catchment through increased sustainable food production and incomes for poor rural households, as well as sustainable management of natural resources. -Double land allocation		

	-Forest land encroachment; people cultivating in the forests -Human-wildlife conflicts -Squatters; there are people who hold no title deeds for the land they cultivate and live on -Incidences of family conflicts as family members fight for a share of land or in cases where the person registered as the land owner died without clear known succession over the land. -Land fragmentation		
Mozambique **Safe Land (TERRA SEGURA)** The focus here is to consolidate the land administration and management system; protect local community rights, while promoting citizenship and sustainable development; and to deliver information about community land rights and other citizens in general.	State of Mozambique owns all the land in the country, and regulates all the concession of land use rights. The project faces a myriad of issues and challenges including: -Population explosion; competition over available land. -Limited access of information on land laws to communities and investors -Difficulty in clearly identifying and delimiting land.	-Sensitization on radio; newspaper and capacity building (land law- service providers; NGOs; communities; national staff) -Land surveys -Entering data into the Land Information and Management System- "SIGIT" -Collaboration with directorate for territorial planning in the elaboration of land use plans. -Updating the National Cadaster	
Tanzania **Bagamoya Sugar Infrastructure and Community Development**	Land is owned by the state, with the president acting as trustee with the power to lease the land to others		

Project (BASIC) The project is expected to raise the incomes and improve the livelihoods of smallholder farmers benefitting from this investment and reduce the country's dependence of sugar import.	Tenure challenges range from:- -Land disputes, caused by a lack of clear regulation and information as such there is a row on relocation and compensation of farmers living on the earmarked land; to limited community awareness on rights over the land they dwell on which makes them vulnerable to exploitation.		
Swaziland **Lower Usuthu Smallholder Irrigation Project (LUSIP)** is investing in a large-scale irrigation system for the area to create favorable conditions so that farmers in the lower Usuthu basin and enable them commercialize their activities and develop sustainable, high-value crop production	In Swaziland, land tenure is broadly of two types, Swazi National Lands (SNL) which is controlled and held in trust by the King and allocated by tribal chiefs according to traditional arrangements, and Title Deed Land (TDL) or land held by freehold tenure also known as individual tenure farms Some of the tenure issues are not only chiefdom boundary conflicts but also conflict within Farmers Associations and the fragile Land Tenure Policy and legal frame work that allows for arbitrary evictions.	Mapping done with the help of community leaders and Farmers Association members. Strengthening Women's Secure Access to Land at all levels including at Farmers Association level, where gender equality and social equity trainings are offered.	
Zimbabwe **Securing Urban Land Tenure Youth in Informal Settlements** Aims to identify and formally register secure tenure of land in informal settlements.	Freehold ownership, occupancy rights to land in communal areas and leases of land granted by the government through various redistribution schemes. Tenure challenges include:- -Lack of a legislative framework providing for the regularization of informal settlements in urban and peri-urban areas. -Lack of formal recognition of informal settlements	-Engaging with local authority and settlement dwellers among other stakeholders to negotiate formal recognition of the informal settlement lands. -The use of STDM to capture a multi-layer of land rights. -Application for the registration of land occupied to formal authorities in	-Need to empower communities with information and skills to uphold their land rights. -All stakeholders should be engages on land matters. -It is critical to educate women and youth on land right stipulated in the

	thus they are termed as illegal settlements. -The absence of ownership status for the land occupiers and threats of arbitrary evictions are rampant. -There is inadequate service delivery (no sewer, water, roads, electricity) in the informal settlements.	Zimbabwe. -Educating communities of their land rights as enshrined in the constitution. -Encouraging joint/spouse registration of land.	constitution.
*Comoros	Customary oral law, the Islamic title to property, and modern identification Tenure issues include:- -A large proportion of the population (majority of the peasant farmers) holds small parcels without title. Most of these parcels are held and managed through one of the island's customary tenure systems, although the local qadi (Muslim judge) may grant a "deed" to the land. Such deeds, which have been issued for about one quarter of these small parcels, codify inheritance rights, but they do not secure individual ownership in the eyes of the state. -A small number of landowners have title to the most productive land (arable land) which they use for export crops. These kinds of lands are limited and with one of the highest population densities in the world. -Land fragmentation is a big problem especially with the high population pressures. -No tenure reform policy is currently being		

	discussed. -Women are not able to inherit land in Comoros. However, when she marries, a Comorian woman is given a house and arable land on which she has usufruct rights. Men hold the management rights, deciding which crops to plant where and what portions of the land will be available to the women.		
Burundi **Burundian Office for Environmental Protection (OBPE)** 'Protected Areas Efficacy Through Bio-diversity Conservation' aimed at raising awareness to self-management capacity of 2 Protected Areas through ecotourism development.	-Rights to land are acquired by inheritance through a patrilineal inheritance system. -Both custom and law restrict women's access, use and ownership of land. Women must rely on relationships with male relatives to secure access to land. -Ambiguity and confusion brought about by the competing documentation due to uncoordinated issuing of land titles and certificates by different agencies. This leads to land disputes. -Very violent disputes over claims of ownership and boundaries often within families. Land disputes are also exacerbated by the waves of displacement and return of people after violent wars.	-Recognizing the role of the local communities through new approach of management. -Empowering neighboring communities by providing alternative income generation activities such as bee keeping. -Enhancing the land cover; tree planting around the Protected Areas (PAs)	

Session 2 part II: Country Case Analysis; Common Issues and Best Practices

The second session of the learning event was dedicated to follow up discussions on the participant's submission in the previous session. The common land issues that had been identified in the plenary for the purpose of learning and with the aim of beginning a debate to counter the negative aspects and learn from the good practices/ policies and declarations on land. This then became an open discussion and a summary is presented here.

Customary land tenure system (land held by communities or indigenous people and administered in accordance with their customs, not national laws) represents the major tenure regime on the continent and one which is vibrantly active. This could be due to the fact that it was a tenure policy pursued by most colonial masters and most post-independent governments. In this learning event, it was revealed that the extent to which this type of tenure is considered secure varies; it has been seen to become less secure and fuzzy under certain circumstances for instance in the case of cultivation of cash crops where lands are known to appreciate and attract investors who wish to own the lands; or in the case of prime urban lands where informal settlements are often evicted.

Women's rights to land are often nested in that of the patriarchal family as revealed in the presentations by the different participants attending the learning event. However, in some countries such as Comoros and Burundi, women do not have rights to land ownership; they maintain usufruct rights which depend on the goodwill of the males including their husbands, brothers, and fathers or other male relations in their societies. Many African societies are predominantly patriarchal and as such rights to land ownership are passed to males through the lineage/clan. Parts of Northern Zambia and Southern Malawi maintain a matrilineal succession and inheritance and practice uxorilocal marriages where women, rather than men, own the primary land rights.

Land disputes caused by a range of reasons are also a common phenomenon in many African countries. The general scarcity of land, family disagreements on succession of the land, displacement and return after civil wars as in Burundi where land conflicts can take on ethnic dimensions, ambiguity and confusion of land documents, multiple sale of a single piece of land and expropriation. Some communities have also chosen to

dishonor boundaries in pursuit of survival (pastoralists who graze animals, villagers who cut trees or farm in demarcated forest lands).

Tenure situations in informal settlements are very complex and cannot be adequately captured by conventional approaches. In Zimbabwe, the government for instance does not recognize informal settlement/slums. Arbitrary eviction is also very common in such settlements and is a common problem experienced by the different countries that participated in this event. In Kenya, Uganda and Zambia, the focus is on access and user rights as opposed to legal ownership and titles. These countries are utilizing STDM to capture spatial information and a continuum of land rights.

Competition for access to land and natural resources was also identified as a common feature by the participant. They agreed that Africa's soil is under competition from foreign governments and agricultural investors, principally for the production of food and biofuels. Governments are allocating new oil, mining, and logging concessions for large-scale industrial production, as well as acquiring land for much-needed infrastructure, such as roads, rails, and ports investors. In Tanzania for instance, this has caused the displacement and resettlement of many people in insecure tenure situations who lose not only their livelihood but also their identity.

Documented Good Practices within the East and Southern Africa region

Ethiopia's land laws allow for the protection of women rights to land by providing that the land certificate is held in the names of both spouses. In addition, the wife must give her consent where the husband enters into a transaction with the land jointly owned. This is a good practice/policy which other nations in Africa can learn from in the quest for gender responsive land laws.

User friendly pro-poor land administration tools and other forms of legal evidence used to protect the poor and vulnerable groups assets (STDM, anti-eviction laws, adverse possession, occupancy rights, the delimitation of community land, low cost certification) should be adopted in all countries seeking to address existing gaps on land administration . Kenya, Uganda and Zambia experiences on the use of STDM have shown reduced land disputes, protection of user rights of these groups and more productive communities as a result of this.

The incremental case of Community Based Integrated Natural Resource Management Project (CBINReMP) on monitoring and evaluation was noted to be very useful to other IFAD investments projects and programme. One key issue is the involvement of all stakeholders in the process; from the grassroots to the national level. The case also shows coordination of the different actors responsible for the projects' success.

Session 3: Introduction to M & E Concepts and Linkage to GIS

This session was facilitated by Joseph Murage, a Monitoring and Evaluation expert from RCMRD. The session looked to promote a common understanding and reliable practice of monitoring and evaluation (M&E) for IFAD project/programmes. Emphasis was to be placed on establishing and implementing a project/programme monitoring and related reporting system. Participants also learnt of the importance of M & E and its relevance to IFAD projects/ programmes.

The participants had a good mix of GIS and M & E practioners and thus the session was more participatory in which case, the facilitator asked the class to brainstorm so as to gather spontaneous ideas on what Monitoring and Evaluation is and the importance to projects/programmes.

From the different responses, participants learnt that a well-functioning M&E system is a critical part of project/programme management and accountability. Timely and reliable M&E action provides information to support project/programme implementation with accurate, evidence based reporting that informs management and decision-making to guide and improve project/programme performance. This also contributes to organizational learning and knowledge sharing by reflecting upon and sharing experiences and lessons so that help the project/programme personnel to gain the full benefit from what they do and how they do it.

A good M and E system also provides opportunities for stakeholder feedback, especially beneficiaries, to provide input into and perceptions of the intervention, modeling openness to criticism, and willingness to learn from experiences and to adapt to changing needs.

Mr. Murage emphasized that the practice of M and E also promotes and celebrates the work on ground by highlighting accomplishments and enables projects/programmes to identify where the activities might be off track so as to make the necessary adjustments and meet the project objectives with the allocated resources (funds, personnel) in a timely fashion.

He went on to define monitoring as the routine collection and analysis of information to track progress against set plans and check compliance to established standards. It helps identify trends and patterns, adapt strategies and inform decisions for project/programme management. He shared that monitoring and evaluation of projects is a critical part of Results and Impact Management System (RIMS), an approach/framework for measuring and reporting the results and impact of the

projects and their finances. It is based on clearly defined results, and the methodologies and tools to measure and achieve them. He added that RIMS supports better performance and greater accountability by applying a clear, logical framework to plan, manage and measure an intervention with a focus on the results you want to achieve.

He outlined key components (as shown in the diagram below) of projects which are the basic ingredients in any project intervention.

Fig 1: Key components of projects

- **Inputs**: all the resources that contribute to the production and delivery of outputs. Inputs are "what we use to do the work". They include finances, personnel, equipment and buildings.
- **Activities**: the processes or actions that use a range of inputs to produce the desired outputs and ultimately outcomes. In essence, activities describe "what we do".
- **Outputs**: the final products, or goods and services produced for delivery. Outputs may be defined as "what we produce or deliver".
- **Outcomes**: the medium-term results for specific beneficiaries that are the consequence of achieving specific outputs. Outcomes should relate clearly to goals and objectives set out in its plans. Outcomes are "what we wish to achieve".

Mr. Murage further used the logic model to help participants understand basic M & E key concepts. Below is the illustration of a simple project with an objective to increase financial returns from milk production among farmers.

Fig 2: Basic Logic Model of a project

Fig 2: Basic Logic Model of a project

The diagram shows a flow from left to right:

INPUTS → **ACTIVITIES** → **OUTPUTS** → **OUTCOMES** → **IMPACT**

- INPUTS: Funds, Equipment, Dairy Cows
- OUTPUTS: Number of farmers trained on new methods of dairy farming
- OUTCOMES: Number of farmers adopting new methods of dairy farming
- IMPACT: Reduced vulnerability to poverty

The Inputs through Outputs feed into **PROCESS & OUTPUT INDICATORS** → **MONITORING**

The Outcomes and Impact feed into **OUTCOME & IMPACT INDICATORS** → **EVALUATION**

The facilitator also shared on the importance of developing indicators that directly measure inputs, activities, outputs, outcomes and impacts. An indicator is a measure that is used to demonstrate change in a situation, or the progress in, or results of, an activity, project, or programme. Indicators are essential instruments for monitoring and evaluation, and exist in many different forms.

A good performance indicator should be:

(a) Reliable-the indicator should be accurate enough for its intended use and respond to changes in the level of performance.

(b) Well-defined- the indicator needs to have a clear, unambiguous definition so that data will be collected consistently, and be easy to understand and use.

(c) Verifiable- it must be possible to validate the processes and systems that produce the indicator.

(d) Cost-effective: the usefulness of the indicator must justify the cost of collecting the data.

(e) Appropriate: the indicator must avoid unintended consequences and encourage service delivery improvements, and not give managers incentives to carry out activities simply to meet a particular target.

(f) Relevant: the indicator must relate logically and directly to an aspect of the institution's mandate, and the realization of strategic goals and objectives.

Mr. Murage outlined the following as key questions to address when conducting M&E
1. What do you want to monitor? – Which indicators are important to track?
2. Why do you want to monitor? – What is the rationale of tracking these indicators?
3. How will you monitor? – Do you need GIS application? What value will GIS application add when tracking the indicator(s)?

Evaluation
The facilitator introduced the term 'evaluation' to the class in an interactive discussion. He asked participants to give their views on what they understood of the term. Some said it is a process to determine whether projects had achieved stated objectives, others said it was similar to an audit. Majority of the participants agreed that it is a process that takes place at different stages of the project; midway, at the end of the project or after a period after project has been phased out.

The facilitator defined evaluation as an assessment, as systematic and objective as possible, of an ongoing or completed project, programme or policy, its design, implementation and results. The aim is to determine the relevance and fulfillment of objectives, developmental efficiency, effectiveness, impact and sustainability. He said that an evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision-making process of both recipients and donors.

Evaluations involve identifying and reflecting upon the effects of what has been done and judging their worth. Their findings allow project/programme managers, beneficiaries, partners, donors and other project/programme stakeholder to learn from the experience and improve future interventions. Evaluation requires an in-depth review at specific points in the life of the project, usually at the mid-point or end of a project. Evaluation verifies whether project objectives have been achieved or not. It is a management tool which can assist in evidence-based decision making, and provides valuable lessons for implementing organizations. Evaluation helps us to answer the following questions:

- How relevant was the project in relation to beneficiaries and stakeholders?
- Did the project contribute to desired results?
- Were the available resources (human, financial) utilized as planned and used in an effective way?
- What evidence is there that the project has contributed to the outcomes and changed the lives of individuals or communities?
- What are the lessons learned from the project?

Key questions to address when conducting evaluation
- What do you want to evaluate? Example of evaluation question. To what extent did project achieve desired outcomes?
- Why do you want to evaluate? – Is the evaluation question able to demonstrate that the project contributed to the change?
- How will you evaluate? – Methodology. Do you need GIS application to improve evaluation of the project?

Breakout Discussions in Thematic Area
Eight discussion groups were organized with each group having M & E and GIS specialists to discuss activities that would result into increased financial returns from

improved milk production to address the objective of the project in the logic model. The following questions helped to understand M & E basic concepts and its linkage to GIS.

- What would you monitor?
- Why would you monitor?
- How would monitor?
- What would you evaluate? – i.e. What would be your evaluation question?
- Why would you evaluate? – i.e. Rationale of using the question
- How would you evaluate? - Methodology. Do you need GIS application to improve the quality of evaluation?

GROUP 15/16

What to monitor	Why monitor	How to monitor	What to evaluate?	Why evaluate	How would you evaluate?
Number of farmers trained **Number of Apex organizations/ coops formed** **Number of farmer exchange tours held** **Number of groups receiving grants** **Quantity of milk produced by each farmer per week**	Track progress milk production Track progress in financial yield	Mapping of forage resources using GIS Mapping of project investment e.g. cooling plant, grants, processors Mapping of farmers Mapping of farmers milk production Mapping of the farm size, location of farmers, location of milk cooperatives, processors and farmers to demonstrate distance	Farmers recording milk yield Trained farmers adopting/ applying dairy production technologies Household income Number of farmers practicing Agribusiness initiatives Number of farmers linked to the milk processors Number of farmers with improved standard of living	To evaluate change in dairy farming To observe changes in income/ expenditure lifestyle/ business growth	Mapping of breed changes (upgrading from local/cross to Exotic cattle) Spatial analysis to compare the feed resource changes in the area of investment Mapping of relevant infrastructures

GROUP 7/14

What?	What output?	How?	Outcome	Activities	Why?	How?
Cattle feeds Breeds **Human Resource** **Funds Equipment**	Number of farmers trained Number of Apex organizations/ coops formed Number of farmer exchange tours held Number of groups receiving grants	Mapping of forage resources using GIS Mapping of project investment e.g. cooling plant, grants, processors Location of perfect area	Farmers recording milk increase Trained farmers adopting/ applying dairy production technologies Households with increased nutrition Household with increased outcome	Training events Grants disbursed Cooperative groups Formed Conducting learning exchanges	Measure effectiveness of project Gauge sustainability interventions Lessons learning possibility	Mapping of breed changes (upgrading from local/cross to Uganda cattle) Spatial analysis to compare the feed resource changes in the area of investment

Evaluation

What?	Why?	How?
Farmers recording milk increase **Farmers applying/adopting production technologies** **Households with improved nutrition Income changes for beneficiaries**	Measure effectiveness of the project Gauge sustainability interventions Lesson learning and possibility of scaling up	Mapping of breed changes (upgrading pattern) Spatial analysis to compare feed resource changes in the project area

Group 4/11

What to evaluate?	Why?	How?	What?	Why?	How?
Quality Quantity Income	Quality being achieved or not Quality achieved or not achieved (increased on the quantity) Increase income (at-least by 30%)	Meeting the final users Reports and Graphs Financial reports and graphs	Quantity of milk produced by each farmer per week Quality of the milk Income generated per week	To meet market demand To ensure that it meets the required standards To make sure that the set financial targets are met (increase	GIS –location of farmers GIS –map showing quantity through questionnaires (Response from end user) Map the income generated

Group 1/8

What to monitor?	Why?	How?	What to Evaluate?	Why?	How?	Why?	How?
Skills development for farmers **Number of improved dairy breeds** **Assess fodder production**	To assess whether we have met the objectives of the projects	Analysis of attendance at training workshops Records of farmers adopting new dairy breeds Hectare under foods production	Amount of milk yields Income generated Standards of living	Access whether there is improvement in production Profits generated	Impact of initiative Farm records Bank records Vulnerability assessment	Develop a map showing project location and the activities	Collection of project data Reed attribute table Graphical presentations of data

Diagrammatical Presentation   Group 1/8

Farm	No. of trained farmers	Volume of milk before project	Volume of milk after project
A			
B			
C			
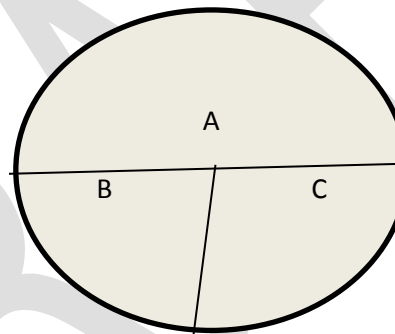
Group 2/9

What	Indicators	How to monitor
Farmers **Capacity building** **Group information** **Enhanced financial services** Milk production **Animal husbandry/ management** **Volumes of milk produced** **Extension services** **Provision of basic farm inputs e.g. milk cooling can.** Financial returns **Agribusiness initiative** **Promote financial linkages with service providers** **Linkages with milk processors**	**Farmers** Number of farmers trained in milk production(gender) Number of groups formed practicing good governance Number of farmers accessing financial services **Milk production** Number of farmers who practice good modern animal husbandry management Quantity of milk produced by farmers Number of farmers receiving extension services Number of farmers accessing basic farm input **Financial returns** Number of farmers practicing Agribusiness initiatives Number of farmers linked to the milk processors Number of farmers with improved standard of living	Develop questionnaires, collect data, analyze and communicate findings to stakeholders Mapping of the farm size, location of farmers, location of milk cooperatives, processors and farmers to demonstrate distance.

GROUP 3, 10

Objective:	Inputs	Activities	Outputs	Outcome	Impact	Integration with GIS
To increase financial returns from milk production among farmers	Finances, technical skills (HRs), equipment	Training farmers Forage Management Business Providing AI services Linking farmers to potential market	Improved breeds of cattle Improved feeding	Increase milk productivity Improved access to market by farmers Increased income	improved livelihood among beneficiaries	Delineation of grazing land/forage plantation Mapping of relevant infrastructures Market route analysis

Group 5/12

What do we monitor	Baseline data	Why?	How?	What is being evaluated?	Why?	How?
Amount/ liter Quantity/site	Amount/ liter Products	Increase in production and	Amount/ liter average per	Financial returns of farmers	To verify profitability	Financial return analysis (increase

Value-additive activities i.e. other products	Quantity/site People trained/with knowledge Producer location and market	value added (income, quantity) Identify trained farmers; where? (Identify success factors from trainings: productivity and knowledge)	market Demand and supply Income household surveys and expenditure lifestyle (of business and personal)and business profitability # of trainings; trainers and people trained	Productivity Knowledge Feasibility/ intake of dairy production	CB(A), To evaluate what knowledge gaps have been filled or not Change in practices Observe changes in income/ expenditure	versus decrease) Observe progress/change Unit productivity (per farm/ project) Tech uptake (farm practices; investment) Markets – knowledge CBA and surveys

GROUP 6, 13

Inputs	Activities	Outputs	Outcomes	Impacts
Fodder seed **Improved cows**	Build skills Trainings	Number of women trained Level of skill Geographical location	Change in dairy management Feeds	Improved living standards Quality of milk

	Farm tours	Number of women who planted Acreage	Housing Milking practices Milk handling Increased milk production	

Communicating M and E Results; Role of GIS in dissemination of Evaluation Results

This session was ended by looking at the role of GIS in dissemination of evaluation results. The facilitator noted that evaluation findings should be shared in an open and transparent manner with all stakeholders in the project and that debriefing meetings should be held to present the findings and recommendations to stakeholders in the project. It was noted as an effective way to get feedback from stakeholders, project staff and funding partners.

An effective strategy to disseminate evaluation findings requires the organization to address the following:

- What were the project objectives? What worked? What did not work and what could have been improved or done differently?
- Who will you want to communicate regarding the findings?
- How will you disseminate this product? – Do you need the support of GIS application?
- How should the findings be packaged to reach the intended user?

Session 4: Integrating M&E and Geographic Information Systems (GIS).

This session was aimed at introducing key concepts of GIS to the participants. This looked at describing what GIS is, the importance of using maps to communicate, the distinction between spatial and non-spatial data, the history of M & E and GIS development and how the two can work together for project advantage.

Having had insight on M&E and its significance in projects in the previous session, coupled with majority participants' own acquaintance to GIS, this session served as a refresher with very limited enquiries. The facilitator however noted that learning GIS is a gradual process and that it was important to be knowledgeable in GIS before being involved in a GIS based project.

Mr. Kelonye, the session's facilitator, explained why adding a GIS based map output to M&E greatly improved effectiveness and communication of results to management, stakeholders and the public.

He explained that GIS consists five components with people/individuals being at the top of that hierarchy. People are the biggest asset to GIS because they plan, implement and operate systems as well as make decisions based on output. Using GIS therefore encourages people to think spatially and use data multi dimensionally

GIS LESSON 1: Developing an M&E-GIS System for Your Situation

The facilitator involved the class by asking them to share their ideas on a number of items such as why GIS and M & E were considered appropriate for their projects. In other words, what benefits will organization/projects receive from GIS that will be a good return on your investment of time and effort?

Many participants shared that GIS helps in mapping project attributes and project current and future fluctuations, analyze important data for instance soil data, farming practices to determine the best crops to plant, where they should go, how to maintain soil nutrition levels etc.

He then took participants through criteria to adopt while deciding what GIS and M & E was most suitable for their projects. He outlined the following as evaluation questions to ask before selecting a suitable method; does the project to be monitored and evaluated have discrete geographic points or areas where activities and outcomes are measured? In other words, does your project have a spatial orientation? Has an M&E system already been developed for this project? Is there support within your

organization and user community for a map-based monitoring and evaluation reporting system?

This was called a quick "test drive" of a GIS application necessary before undertaking the process of GIS and M & E linking. This would enable one to get a feel of the power of the software, amount of effort required and the usefulness of what they can produce. It would enable them to know whether GIS is appropriate for your project or just an expensive and time consuming process.

The facilitator posed some questions to the participants after the test drive which comprised of the following:-

1. Does this GIS application fit within the existing capabilities of your organization? Is this too complex or too time-consuming?

2. When you compare the purpose statement with your experience with the "test drive", did you envision some ways an M&E-GIS system would be useful in monitoring and evaluation the outcomes of your project?

3. Does this look like something your organization is already doing?

4. Will presenting information using map-based outputs add value to your project?

Make a final evaluation and decide to proceed or stop

After the test drive, the participants being M & E and GIS practioners were to share ideas on how to make project decisions for their unique situation and what information will be collected and analyzed by the project.

The facilitator stated that the M & E - GIS system package is a series of three maps:

- A "current" map showing the current status of each reporting entity. e.g., school, health clinic, well, food distribution center, etc.
- A "past" map, that illustrates the work completed since the last report
- A "future" map showing the work to be done before the next report is due, e.g., repairs, new installations, training

He equated the model to an accounting system where the current map is a balance sheet showing the current level of accounts at a specific moment in time; the past map is similar to a financial statement of revenues and expenses for activities during the prior reporting period; and the future map is similar to a budget which is the plan for activity in the upcoming accounting period

Mr. Kefasi, from Malawi, inquired whether this model was the only existing model while linking M and E and GIS. In response, the facilitator shared that other conceptual models may be better fit for different projects but that the most important principle to remember is to use key indicators to map outcomes that tell a story. He added that the map model is only the method of displaying outcomes and that individuals and projects alike were free create your own model mapping outcomes.

By relating to this model participants were able to understand the significance of having a GIS system in their projects since they could be able to track every change and identify complex spatial patterns within a time series.

GIS LESSON 2: Selecting GIS Software to Adopt in the project
Participants were briefly taken through steps to consider while selecting particular software to adopt in projects. Emphasis was placed on cost, ease of learning, as well as capabilities of the GIS software application to meet their needs.

 A refresher followed on how to use the GIS software. This included software installation of the QGIS software as well as various plugins such as open layers, rectangular ovals, and STDM MMQGIS plugins among others. They also learnt how to start projects and save existing projects which is a fundamental step in integrating GIS and M & E. The interface of QGIS was also discussed at length with class concluding that it is powerful geospatial software to use in analysis.

One participant from Swaziland asked whether there was a known maintenance cost for the software and the frequency of updating it. In response, the facilitator noted that QGIS software is open source software freely available from the internet, with no licensing fee and no maintenance fee /recurring fee.

Yet another participant from Burundi inquired on the compatibility of QGIS with other data file extensions and whether it can be modified to suit needs of particular projects. The facilitator responded by stating that QGIS is tailor-made to suit particular needs of project/organization but that any changes made to it cannot be patented. He also shared that updates with regard to the software were frequent on the online software package.

GIS LESSON 3: Creating Maps Supporting Monitoring and Evaluation Systems

Participants also looked at data types that can be integrated into the GIS system so as to understand what data can/ would add value to projects, key concepts of what vector and raster data types are were taught.

The next session involved a practical guide to further understand what had been taught in the previous sessions. Using spatial database of the location of the world's administrative areas (or administrative boundaries) used in GIS and similar software, participants were tasked to create reference maps of their choice. This database is found on the Global Administrative Areas (GADM) site which contains administrative areas of countries and lower level subdivisions such as provinces, departments among other spatial features such as roads, rivers, and population data.

Mr. Kelonye explained that other sources of data may be available to the users at a cost depending on factors like the age, scale and resolution of the data. He cautioned against putting very many features on a map because maps cluttered with too much detail can detract the intended purpose of the map. He further indicated that the simpler the map, the better.

In the afternoon of this day, the class had another practical session in which coordinates of RCMRD (the host) were collected. Almost every participant was conversant with the GPS machine. This exercise also integrated training on how to use mobile phones to collect coordinate-how to use GPS on mobile phones

GIS LESSON 4: GPS for GIS data Collection for Monitoring Projects

This session was facilitated by Mr. Kelonye. He started by impressing upon the participants that data is the fuel that drives M&E-GIS projects and decisions on what data to collect is very paramount. This in most cases depends on the project features, its management and stakeholders.

The facilitator elaborated that defining and collecting individual items (key indicators) of data that to be displayed in map format should aim at creating a useful information tool for project stakeholders. The scope and scale of the area covered by the project will determine where collect data is collected. Some projects chose to sample data at every location of their project area. It is however important to collect data of use as opposed to collecting every aspect of the need. This is done to limit the number of data items monitored to a manageable number and that that can provide the most useful

information for the project while at the same time utilizing the least personnel time and project cost.

He also shared that linking GIS- M & E depends on getting periodic reports from the field and training staff on data input. Collecting key indicator data in the field and sending that data to the GIS technician starts the process of preparing the GIS maps that display the M&E results. Participants were encouraged to consider the importance of accuracy in data entry and also how to handle missing and invalid data. Accuracy is critical if the resulting M&E report maps are to tell the true story of the project.

After the short lecture, participants sought to know what tool between the GPS and android mobile phones was most accurate in data collection. In response, the facilitator reiterated that GPS machines can only be accurate if used well. For the user to get accurate data they should ensure that; the GPS unit is properly configured especially when being used in a new location for the first time; ensuring the user has a clear view of the sky; moving close to stationery targets; and ensuring that data capture forms are filled as accurately as possible. He also said that mobile phones can be used to collect coordinates but that the user needs to install an application/ software to enable performance of the task.

Session 5: CASE STUDY- STDM (WITH COUNTRY CASES)

In this session, participants from three countries; Kenya, Uganda and Zambia presented how the STDM tool had emerged to be an adequate land information management tool to capture land related data in rural and urban areas of which data had not been captured under formal cadasters.

Participants learnt how the STDM process has bridged the gap between communities and land professionals and how it has been able to record the informality and complexity of the various tenure situations exhibited in the many informal settlements in developing towns/cities.

Pamoja Trust, an organization that has been working in the urban areas in Mombasa and Nairobi –Kenya presented how slum dwellers are able to collect, manage and analyze data about their own settlements using the STDM tool as well as finding ways to address challenges within these settlements.

VODP II project in Uganda presented on how the tool has been used in Kalangala district under the Buganda kingdom where exists a mix of tenure systems; private, mailo, public land, free hold and customary tenure systems to help farmers determine plot boundaries and to minimize land conflicts.

Zambia's Peoples Process on Housing and Poverty project also presented how STDM supported grassroots women in piloting STDM to capture the social tenure relationships of women over land, housing and natural resources within the customary areas. STDM was piloted in Mungule Chiefdom in Chibombo District in the periphery of Lusaka.

Power point presentations in Annex 3 (List of presentations)

Field Work Practical – Mwea Irrigation Scheme

A field excursion to the Mwea Irrigation Scheme in Kirinyaga County was conducted with a focus on three areas and in line with the project objectives.

Participants were to interact with personnel at the National Irrigation Board in Mwea and get an overview of the project with a focus on land tenure issues at the scheme; what is monitored and how GIS and M and E are integrated at the project. This project provides for a good case study with fairly similar land issues (women's land rights, large scale land based investments, land administration, land conflicts, customary tenure) as those experienced in other development projects/programmes.

The class was required to use the knowledge gained in the class training to analyzing and reflecting upon issues both individually and in groups. Guided by field personnel from the National Irrigation Board that oversees the scheme, the class learnt what is monitored (what?); who monitors (who?); for what (the objective); the methodology used in the monitoring process (how?); who this information is intended for (for whom?); and the scale and frequency of monitoring. Participants also looked into the importance of an integrated approach to land productivity and investments; the use and management of land and water resources and the linkage between land tenure rights regimes and water rights regimes.

Objectives of the excursion;
- To review the effects land tenure in the irrigation scheme and its environs
- To review the role of GIS in M & E in the irrigation scheme
- To provide recommendations based on the findings of the above objectives

Overview of the Mwea Irrigation Scheme

Mwea Irrigation Scheme was started in 1956 as holding grounds for former Mau detainees. The scheme is situated in Kirinyaga County and on a gazetted area of 30,350 acres, with total of 16,000 acres developed for paddy production. The scheme is one of the 7 public schemes managed by National Irrigation Board (NIB), which include Bura, Tana, Perkerra, Ahero, Bunyala and West Kano.

The National Irrigation Board (NIB) was established and incorporated in 1966 as a State corporation through the Irrigation Act, Cap 347 of the Laws of Kenya. The objective of this Act is "to provide for the development, control and improvement of irrigation schemes, for purposes incidental thereto and connected therewith." Currently, the Board manages seven (7) national irrigation schemes and stations with four operational research stations. The Board also has two rice mills in Eastern and Western regions: Mwea Rice Mills (MRM) and Western Kenya Rice Mills (WKRM).

However, NIB has been entangled in contentious issues in these irrigation schemes across the country. After independence, the National Irrigation Board (NIB) continued with the management structures of the colonial system of administration and control.

Through the decades, other conflicts have existed between the Irrigation Board (NIB) and the rice farmers fueled by several grievances such as low producer prices, high cost of irrigation related services, high cost of seeds, fertilizers and chemicals and the land tenure system where farmers are tenants. Each farmer has a 4 acre land allocated to

their households. Land leases are mostly in the hands of fathers or male members of households whose names appear in the lease documents. In many cases, female members of households get user rights to land through the male members.

The NIB functions to provide water and seeds to the farmers while also taking care of land administration (schemes regarding the farm are done by NIB).

How NIB operates

- The board has about 8000 farmers and acts as the regulatory board to determine the pricing of the crop
- Every farmer has been allocated at least 4 acres nonetheless this varies since some have between 6-8 acres.
- In 2003, Irrigation Water Users Association (IRWUA) was created.
- A block leader is elected by farmers and block leaders elect the chairman.
- Farmers are trained on water distribution and management.
- Every farmer is entitled to pay 2000 Kshs/acre as maintenance and operational canal fee for the main crops and 1000 Kshs/acre for the lagoon crops.
- The production cost is 60,000 Kshs/ acre.
- There are two crops grown at the scheme. The main crop is harvested in December and the sprouts which come after the main crop.
- NIB is not involved in any marketing of rice. Farmers identify their own market.

Monitoring & Evaluation and GIS Integration at the Mwea Irrigation Scheme

Participants were informed that monitoring and evaluation of the scheme is conducted quarterly by the head office. The current M&E system is for monitoring the financial aspects and water distribution at the scheme. The GIS attributes collected at the project include; Section, block, acreage coordinates. The GIS system is however at the inception stages but the area where the scheme sits has been mapped.

The participants also learnt of other institutions that work together with the National Irrigation Board in Kenya, within the irrigation scheme with different roles and clearly defined mandates, such as the Water Users Association whose mandate is to manage the utilization of water within the scheme to ensure sustainability.

Tenure Issues at Mwea Irrigation Scheme

National Irrigation Board (NIB) controls the land issues and rights, Land allocation and Conflict resolutions as well as providing technical assistance. The rice farmers within the scheme are not private land owners. As such tenure security is not necessarily

defined by having a title deed. Rights to use the rice paddies are guaranteed through leases.

However, some overlaps exist; for example, NIB is involved in land subdivision and issuing of lease agreements which are the mandate of the Ministry of Land, housing and Urban Development and the National Land Commission.

The recommendations made include-
- Farmers should be given a type of lease (titles) to allow them access financial credit.
- Regulation of land subdivision.
- Women should be given more consideration/ involvement in land ownership.
- Establish a working M&E system to track indicators, activities, objectives of the scheme.
- Incorporate enumeration and GIS into the M&E system to be developed
- There is need to create a system to monitor land use as well as the use and management of the existing resources like water. For example, to deal with illegal water connections
- Update the large scale map of the area showing the different parcels and their boundaries

Session 6: ACTION PLANNING AND RISK MANAGEMENT

The key objective of the session was to identify how M&E and GIS would be applicable in a programmatic framework within the different IFAD projects/ programmes represented in the training. Participants had to identify:

-Data collection/Methodology

-Tenure Security indicators

-Analysis and Reporting

The participants noted down each of the activities subsequently sharing the same with the entire group as indicated below:-

Country	Project/Department	Objective	Activity	Tenure Security Indicators	Data collection/Methodology	Analysis and Reporting
Union of Comoros	Ministry of Agriculture and Environment- GIS department	Improve relationship between the Monitoring and evaluation department and the G.I.S department	Use the M&E department as source of data to feed a GIS database	# of M & E reports using GIS data	Extraction of statistical data from reports available at the M & E department Use of GPS collection of coordinates information present in different reports	GIS data base Thematic maps
Ethiopia	Community Based Integrated Natural Resource Management Project			# of land surveying and mapping exercises carried out # of second level certification issued (GPS Coordinates included) for land holders Communal land delineated (grazing land, forest land, degraded land) # of community land administration committees capacitated # of women whose capacity has been built	Deploying contract surveyor and data encoders Periodic Reports and workshops Primary data collections from: Smallholder farmers and other land holders Community leaders Community land administration committees	Database creation (ISLA Software in our case) Communicate results to landholders Issue the user right certificate for respective land holders Develop web based MIS planning & reporting system Develop data collection and reporting formats Establish reporting mechanism/schedules for each respective stakeholder
Kenya	Upper Tana River Catchment	Reduce poverty through	Conduct school	# of trees planted in a school	Use of data topographical map of	Maps showing the schools participating in the project

		effective management of natural resources	greening programme Monitor water volume Monitor Water quality Sensitize on water harvesting techniques	Water volume estimates Sample analysis on silt load	the area/ aerial image Change map; create a map showing the situation before the project began and the situation after it began. Graph showing silt load Data Landsat image River gauges installed to calculate the flow rate in Meters per second. DEM used to determine the change in river volume using Remote Sensing techniques.	Map showing the before and after situation Graph showing the differences in the river flow rates for different periods A map showing the river volumes at different times.

| Kenya | Smallholder Dairy Commercialization Project and RECONCILE | Proper management of common resources

Proportion of gender accessing and controlling resources (Land) | - | - | Reconnaissance Surveys and Stakeholder mapping
Key Informant Interviews
Spatial mapping
Focus Group Discussions
Semi-structure interview
Surveys
Spatial Mapping
Semi-structure interview
Focus Group Discussion | Statistical analysis
Spatial analysis
Charts and graphs
Maps
Periodic reports |
|---|---|---|---|---|---|---|
| Malawi | Sustainable Agricultural Production Programme | - | - | %age of land under improved Agricultural Practices in programme impact area

# of households who own land

# of household with exclusive land rights
# of land conflict cases in the programme impact area | Develop data collection tools e.g. coordinates, name of a farmer, location, type of crop, management practices
Orienting agriculture frontline staff on the tool

The Agriculture frontline staff in the programme area will administer the questionnaire

The coordinating unit will develop a database where data from frontline staff will be fed into the database | Deploy GIS to do the analysis and produce a narrative report with figures, pictures, maps, graphs and tables

Integrating GIS Data and technology in M & E system
Develop a GIS database where there will be
spatial linking of land tenure issues in the programme area

Spatial linking of interventions in programme areas

Deploy GIS to do the analysis and produce a narrative report with figures, pictures, maps, graphs and tables |

Swaziland	Lower Usuthu Smallholder Irrigation Project Action Plan	Integration of smallholder farmers into commercial agriculture	Mobilizing communities into institutions Registration of groups into FA's	No. of chief's land consent letters issued to farmers associations	Base line survey using GIS Location of households Size of land Membership Water allocation Socio-economic activities (access roads, clinic, schools etc.)	GIS maps Project evaluation to determine the impact at outcome level
Mozambique			Training the community in land law matters Delimitation of communities. Demarcation of plots within communities	Number of certificates delivered to the beneficiaries (communities/individuals) Number of beneficiaries trained in land law matters # of conflict registered	Boundaries of the community and the individuals parcel using GPS/Satellites images. Data of the owners of plots (purpose of the parcels, dimensions) Enter data into the system (SiGIT)	Map showing uses and land cover Map showing all defined communities and individual plots demarcated List of empowered communities in land law matters Map showing all recorded conflicts
Uganda	Vegetable Oil Development Project Phase II	Increasing domestic production of vegetable oil and its byproducts, to raising rural incomes for		Number of Famers issued with Land titles Number of Farmers accessing financial credit using Land Titles. Number of land conflicts	Use of farmer enumeration Use of Secondary data from financial institutions in the project Area (Bugala Island)	Reporting to be done half year indicating land insecure areas/ those areas vulnerable to land insecurity, indicating number of cases and degree of conflict. Maps showing different attribute e.g. Plots, community

		smallholder producers		resolved	Use of raster maps from project area to observe change in vegetation. Use of farmer data sets. Focused Group Discussion	access roads, and service points. A Map showing variation /degree of land insecurity along the project Areas. Statistical reporting aides such as pie charts, graphs, trends together with the maps.
Zambia		Strengthen customary land rights for all through the development of a transparent and accountable land administration system		Number of Customary land certificates issued. Number of women aware of their land rights. Number of youths aware of their land rights. Reduction of boundary disputes	Enumeration Village profiles Mapping	Social tenure Domain Model (STDM) GIS (Maps, statistical charts, video)

Closing Session

Closing Remarks

Solomon Mkumbwa of GLTN congratulated the participants for their discipline, focus and commitment and said that the workshop had exceeded expectations, especially on the practical knowledge on M&E and linkage to GIS as reflected in the action planning. He said that clearly showed how ready they were to apply the knowledge gained to their projects/programmes. He also shared that GLTN would continue looking into how they can learn from each other, build on the momentum and create synergies within the different projects adding that the action plan will be shared.

Vincent Ntulana from RCMRD shared similar sentiments and thanked the participants for coming out for the learning event, noting that the environment was very accommodating for learning as he could see the participants enthused to continue with other sessions. He stated that he hoped that the participants had acquired knowledge on land and natural resource tenure especially within the theme of GIS and Monitoring and Evaluation. He further indicated that he had also gone through the same process of learning, encouraging participants not to stop learning- through RCMRD website and also to communicate with RCMRD staff on email and continue with the linkages.

Douglas Nyombi, from the Vegetable Oil Development Project – Phase 2 (VODP II) in Uganda, gave a vote of thanks on behalf of the participants, appreciating the training, and shared that he had learnt a lot including how to develop measurable indicators which can be tracked using geo-spatial technologies. He added that reporting of monitoring results is very vital because without good feedback, monitoring and evaluation cannot serve its purpose.

Workshop Evaluation

This was done through a simple anonymous pencil and paper feedback format to take stock of the nine day process of the learning event and establish the extent to which objectives of the workshop had been achieved. A workshop evaluation form was distributed to all participants and 26 completed forms were filled and returned to the workshop conveners (see Annex 5). These were later analyzed focusing on the following areas including- course content, course materials, delivery of content, issue for follow up and the overall experience in the training.

Areas under evaluation included rating the course, the course contents and how it was delivered, facilitation of the workshop, logistics and administration during the workshop as well as the perceived impact realized after the workshop.

Responses from the questionnaires were then analyzed and many of the participants overwhelmingly positively indicated that they had acquired basic GIS and M&E skills. The overall training scored quite highly in terms of training clarity and effectiveness, proper facilitation, class participation and answering of questions clearly and within time. Many of the participants also were pleased with the new professional networks they had established within the nine day training period.

As a follow up initiative to build up on this event, a majority of participants indicated that more training and revision materials would be best as a follow up to the training. Some of the suggestions participants offered include possibly availing more time for similar learning events, effective communication on any material details, better logistical preparation, better time management, and more field work and practical in session.

Annex 5 shows the analysis of the evaluation.

ANNEX 1: Outline of Workshop Agenda

Regional Training of Trainers Programme on Integration of Land Tenure Monitoring in Development Projects Using Geo-Spatial Technologies
11th to 19th April 2016
Regional Center for Mapping Resources for Development, Nairobi, Kenya

TIME/ Monday	AGENDA ITEM	PRESENTER/ SPEAKER
08:00 -09:00	Arrival and Registration	
09:00 -10:20	**Opening Session**	Byron Anangwe
	Opening Remark/Welcome and institutional introductions - Training convener Dr. Katetegeilwe Rwiza - Director Land Management & Survey RCMRD - TSLI-ESA Project Training overview and expected outcomes – Solomon Mkumbwa - Opening Address by UN-habitat Leader – Oumar Sylla - Address and welcome by the Director General RCMRD Dr. Hussein Farah	

10:20-10:30	Group Photo	RCMRD
10:30-11:00	**Tea Break**	
11:00-12:30	Project M&E/GIS - Project goal, Objectives, Key activities, Indicators (Use a framework), How they monitor the indicators, Indicators that use/require GIS, data and data collection, analysis and reporting, Evaluation, questions on GIS.	Joseph & Hellen
	Project status of Land Tenure – Type, Issues, Tools/Approaches, Lessons, etc	Charles
12:30-14:00	**Lunch Break**	
14:00-15:30	Project Presentation - Project goal, Objectives, Key activities, Indicators (Use a framework), How they monitor the indicators, Indicators that use/require GIS, data and data collection, analysis and reporting, Evaluation, questions on GIS.	Joseph & Hellen
	Project status of Land Tenure – Type, Issues, Tools/Approaches, Lessons, etc	Charles
15:30-16:00	**Tea Break**	
16:00-17:00	Reflection and discussion on the Project Country discussion continues	
Tuesday:		
9:00-10:30	M&E Refresher	Joseph
10:30-11 :00	**Tea Break**	
11:00-12:30	Communicating M&E Results	Joseph
12:30-14 :00	**Lunch break**	
14:00-15:30	New Technologies being adopted in projects M&E	Joseph & Wiseman
15:30-16:00	**Tea Break**	
16:00-17:00	Introduction to Concepts of GIS and linkage to M&E	Wiseman
Wednesday:		
9:00-10:30	Data Types	Wiseman
10:30-11:00	**Tea Break**	
11:00-12:30	Social Tenure Domain Model (with country cases)	Eric, Kenya, Zambia, Uganda
12:30:14:00	**Lunch Break**	
14:00-15:30	Data Capture	Wiseman
15:30-16:00	**Tea Break**	
16:00-17:00	Raster Data and Vector data	Wiseman
Thursday:		
9:00-10:30	Vector Spatial Analysis	Wiseman & Eric
10:30-11:00	**Tea Break**	
11:00-12:30	Spatial data collection techniques for Project Management	Wiseman
12:30:14:00	**Lunch Break**	
14:00-15:30	Visualizing Project Data	Wiseman & Eric

15 :30-16 :00	**Tea Break**	
16 :00-17 :00	Case Study	Wiseman, Eric & Joseph
Friday:		
9:00-10:30	GIS and GPS for M&E	Wiseman & Joseph
10:30-11:00	**Tea Break**	
11:00-12:30	Creating Maps Supporting Monitoring and Evaluation Systems	Wiseman, Eric & Joseph
12:30:14:00	**Lunch Break**	
14:00-15:30	Updating data in the M&E - GIS System	Wiseman, Eric & Joseph
15:30-16:00	**Tea Break**	
16:00-17:00	Data analysis and preparation of M&E Reports / Maps /Communicating Results Case Study	Wiseman, Eric & Joseph
Saturday:	Field Excursion and Practical GIS/M&E	Wiseman & Joseph
Sunday	Field Excursion and Practical GIS/M&E	Wiseman & Joseph
Monday		
9:00-10:30	Field work Reporting	Wiseman & Joseph
10:30-11:00	**Tea Break**	
11:00-12:30	Action planning and risk management	Wiseman & Joseph
12:30:14:00	**Lunch Break**	
14:00-15:00	Round table discussion with IFAD&GLTN on the way forward	Solomon & Charles

15:00-15:30	Closing Session and presentation of certificates
	   - Participants
	   - UN-Habitat
	   - RCMRD
	Workshop Evaluation
		Byron
		
		Hellen

17.00	**Closing**	

Annex 2: List of Workshop Participants

Participant List: Training of Trainers on Integration of Land Tenure Monitoring in Development Projects Using Geo-spatial Technologies

	City, Country	Participant	Gender	Project/organization	Email
1	Lilongwe, Malawi	Kamoyo Kefasi Jeremiah	M	Sustainable Agricultural Production Programme (SAPP)	kamokefa@yahoo.com
2	Lilongwe, Malawi	Nagwale Noel	M	Sustainable Agricultural Production Programme (SAPP)	ncdnangwale@gmail.com
3	Bahir-Dar, Ethiopia	Tashu Mengist Minale	M	Community-based Integrated Natural Resources Management Project (CBINReMP)	Menge3c@gmail.com
4	Lilongwe, Malawi	Chisenga Wezzie	M	PhytoTrade/TreeCrops	wezziegolie@hotmail.co.uk
5	Siphofaneni, Swaziland	Dlamini Rhoda Ncamsile	F	Lower Usuthu Smallholder Irrigation Project	rhoda@swade.co.sz or ncamsilerdlamini@gmail.com
6	Manzini, Swaziland	Nxumalo Bongekile Nothando	F	Lower Usuthu Smallholder Irrigation Project	bongekile@swade.co.sz
7	Nairobi, Kenya	Gachiri Siddy Wambui	F	Ministry of Land, Housing and Urban Development	siddywambui@gmail.com
8	Nairobi, Kenya	Kasumuni Rachael Kavutha	F	Ministry of Land, Housing and Urban Development	rkavutha@gmail.com
9	Maputo, Mozambique	Rubino Francesco	M	IFAD Mozambique Country Office	Fra-rubino@hotmail.it
10	Maputo, Mozambique	Queface Daniel	M	IFAD Mozambique country office	daniqueface@hotmail.com

11	Bujumbura-Gitenga, Burundi	Hatungimana Jonathan	M	Office Burundais pour la Protection de l'Environnement (OBPE)- National Environmental Authority	johadelb@yahoo.fr
12	Harare, Zimbabwe	Mageza Farirai	M	Securing Urban Land Tenure For Youth in Informal Settlements	fgmageza@gmail.com
13	Moroni, Comoros	Nair Aboubacar	M	GIS department, Ministry of Environment	aboubacarnair@gmail.com
14	Lusaka, Zambia	Nkhata David Katungula Musa	M	People's Process on Housing and Poverty in Zambia and the Zambia Homeless and Poor People's Federation (PPHPZ)	katunguladavid@gmail.com
15	Kampala Uganda	Tamale Frank	M	VODP II/ KALANGALA OIL PALM GROWER'S TRUST	tamale160@gmail.com
16	Entebbe, Uganda	Tusiime Maxmillian	M	VODP II/ Ministry of Agriculture, Animal Industry and Fisheries	maxmilliant@gmail.com
17	Kampala, Uganda	Nyombi Douglas	M	VODP II/ Enhancement of National Food Security through Increased Rice Production Project- Directorate of Crop Resources	dougnyombi@gmail.com
18	Dar es Salaam, Tanzania	Teri Gilead John	M	Agricultural Non State Actors Forum (ANSAF)	t.gileads@yahoo.com
19	Lilongwe, Malawi	Brown Kingsley Mphalo	M	Department of Surveys	brownmphalo@yahoo.co.uk
20	Embu, Kenya	Kariuki Elizabeth Muthoni	F	UTaNRMP	Ngatializ@gmail.com
21	Nakuru, Kenya	Michael Kibiego	M	SDCP	kibiegomb@gmail.com
22	Bomet, Kenya	Geoffrey Ochieng Otieno	M	SDCP	ochiegeoff@yahoo.com
23	Nakuru, Kenya	Kimoro Bernard	M	SDCP	bkimoro@gmail.com

24	Nakuru, Kenya	Christabel Naliaka Barasa	F	RECONCILE	christabel@reconcile-ea.org
25	Nakuru, Kenya	Ken Otieno	M	RECONCILE	peterkenotieno009@gmail.com
27	KENYA	Mutono Nyamai	F	PAMOJA TRUST	mutono.nyamai@pamojatrust.org

ANNEX 3: List of Presentations

Day One (12.04.2016): TSLI-ESA project overview 2015 to 2016 by Solomon Mkumbwa, GLTN/UN Habitat

- Sustainable Agriculture Production Programme (SAPP) in Malawi by Kefasi Kamoyo

- Strengthening Customary Land Rights in Zambia by David Katungula Musa

- Community Based Integrated Natural Resource Management Project (CBINReMP) in Ethiopia by Tashu Minale Mengist

- Vegetable Oil Development Programme Phase II in Uganda by Max Tusiime

- Smallholder Dairy Commercialization Programme (SDCP) in Kenya by Michael Kibiego

- Upper Tana for Natural Resources Management (UTANaRMP) in Kenya by Elizabeth Kariuki

- Safe Land (TERRA SEGURA) in Mozambique by Francesco Rubino

- Bagamoya Sugar Infrastructure & Community Development Project (BASIC) in Tanzania by Teri Gilead

- Lower Usuthu Smallholder Irrigation Project (LUSIP) in Swaziland by Nxumalo Bongekile and Rhoda Dlamini.

- Youth Agrarian Society in Zimbabwe by Farirai MagezaGIS Department, Ministry of Environment of Comoros by Nair AboubacarBurundian Office for Environmental Protection (OBPE) in Burundi by Jonathan Hatungimana

Day Two (13.04.2016): Monitoring and Evaluation integration into GIS by Joseph Mwaura Murage, Regional Centre for Mapping Resources for Development

Day Four (15.04.2016): Social Tenure Domain Model (STDM) for Improved Tenure Security of the Urban Poor-Kenya: By Mutono Nyamai- Pamoja Trust.

Mapping Land and Natural Resource Rights Experiences– Uganda: By Tamale Frank - Vegetable Oil Development Project Phase II.

STDM pilot by in Mungule Chiefdom in Chibombo District by Katungula David, Peoples Process on Housing and Poverty project s

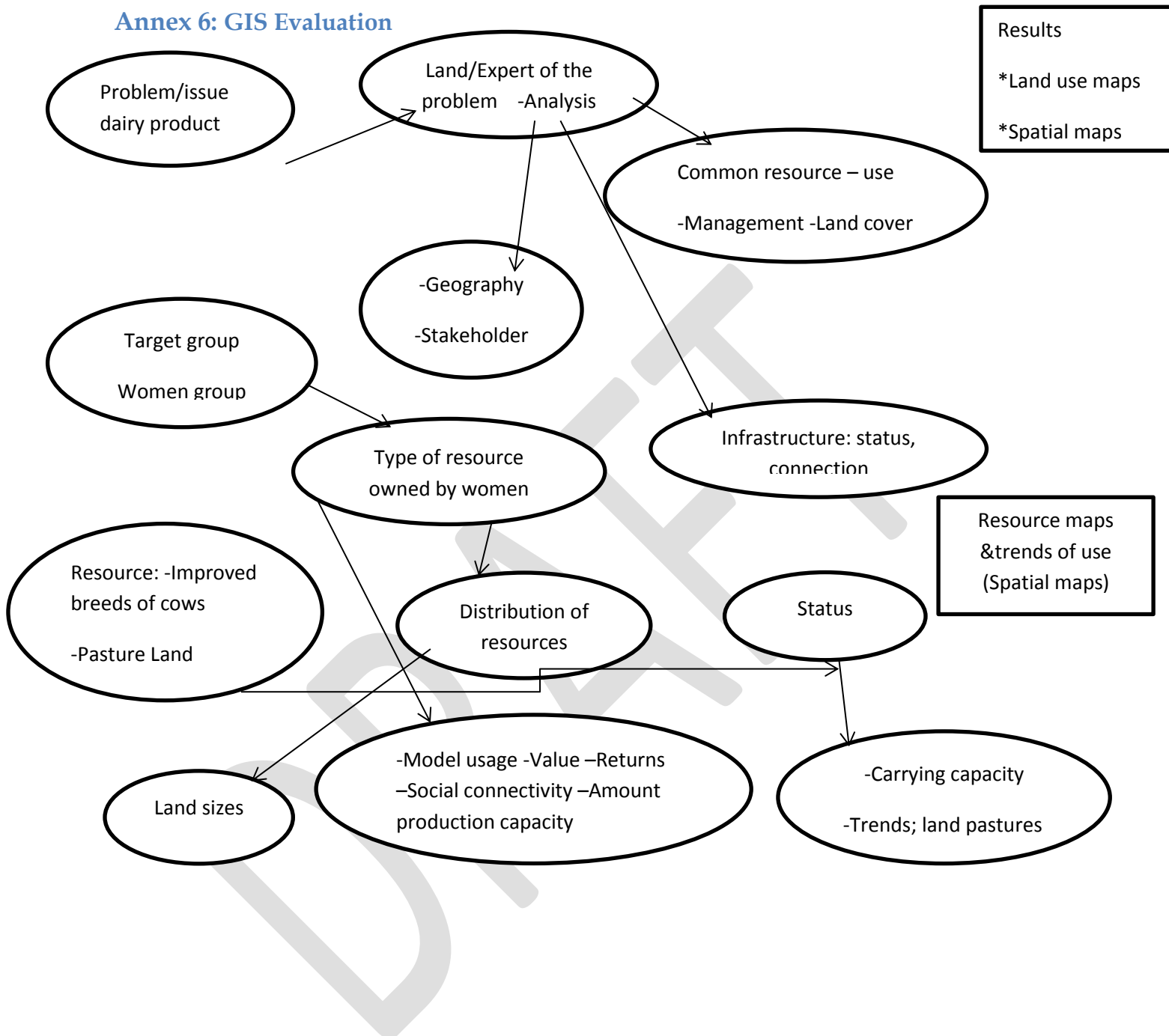## Annex 4: Focus Group Questionnaire

1. Do you have a GIS technician?
2. How did you measure a hardworking farmer?
3. How many cooperatives do you have
4. What's the relationship between Cooperative and IRWUA?
5. How do you differentiate the scheme regulation?
6. Do out-growers report to NIB and are you able to keep control over the issues of Title Deeds?
7. Do you supply farmers with seeds?
8. What inputs do you give the farmers e.g. Fertilizers, machines?
9. How often do you update the subdivision?
10. Money given to farmers (for the chemicals and fertilizer) is it a grant or a loan
11. How do you monitor the farms profits and how do you measure the duration of tenancy, irrigation systems you are using?
12. What are the land use challenges/ conflicts?
13. How many varieties of crops do you have?
14. Is there a life span of the scheme?

Annex 5: Workshop Evaluation

No.	Area of Evaluation	Feed Back			Analysis		
		Good	Average	Poor	Good	Average	Poor
	Acquired basic M &E skills	14	8	2	56	32	8
	Acquired basic GIS skills	19	6	0	76	24	0
	The content and scope met my expectations	11	13	0	44	52	0
	Time Management	10	12	1	40	48	4
	Equipment/ tools was sufficient for the training	16	9	0	64	36	0
	The presentations were clear and effective	19	6	0	76	24	0
	The facilitator(s) managed class discussion well	21	4	0	84	16	0
	Questions were answered completely and clearly	19	6	0	76	24	0
	The facilitator(s) encouraged class participation	20	4	1	80	16	4

A.	Overall	20%	40%	60%	80%	100%	20%	40%	60%	80%	100%
	How much of the information covered in the training was new to you?	2	8	14	1	0	8	32	56	4	0
		Excellent	Very Good	Good	Fair	Poor	Excellent	Very Good	good	Fair	Poor
	Which term best describes your overall experience in the training?	1	9	13	2	0	4	36	52	8	0

	What is the most important thing you gained from the training? Why?	Many participants reported that the most important thing they gained from the training was the basic M&E and GIS Skills
	Which part of the training did you enjoy the least? Why?	A majority of participants indicated that apart from logistical issues, they did not like the apparent lack of proper communication and the Field trip which a small minority reported which according to them was not well organized.
	What should UN Habitat/ GLTN and RCMRD do as a follow up to this training?	A majority of participants indicated that more training and revision materials would be best as a follow up to the training.
	Write any suggestions or recommendations for improvements of future training.	Some of the suggestions include:-Better communication and logistical preparation, better time management, and more field work and practical in session.

Annex 6: GIS Evaluation

Problem/issue dairy product

Land/Expert of the problem   -Analysis

Common resource – use
-Management -Land cover

Results
*Land use maps
*Spatial maps

-Geography
-Stakeholder

Target group
Women group

Type of resource owned by women

Infrastructure: status, connection

Resource maps &trends of use (Spatial maps)

Resource: -Improved breeds of cows
-Pasture Land

Distribution of resources

Status

Land sizes

-Model usage -Value –Returns –Social connectivity –Amount production capacity

-Carrying capacity
-Trends; land pastures

Annex 7: Breakout Group Discussion; Linking M&E to GIS

This session involved an exercise that combined knowledge learnt in the M and E session and that acquired during the GIS sessions.

Using the Smallholder Dairy Commercialization Project (SDCP), Participants were tasked to prepare a map showing the following:

- Changes in milk production in project sites
- Milk processing plants
- Exotic cattle versus local breeds
- Changes in household income

CHANGE IN INCOME

Before   **After**
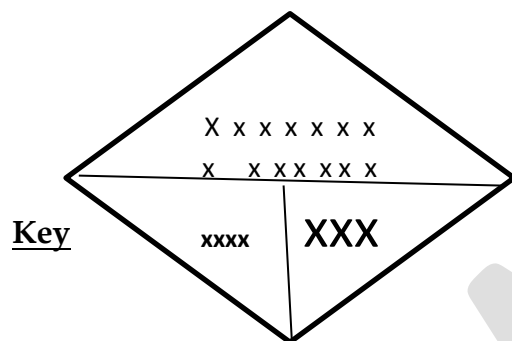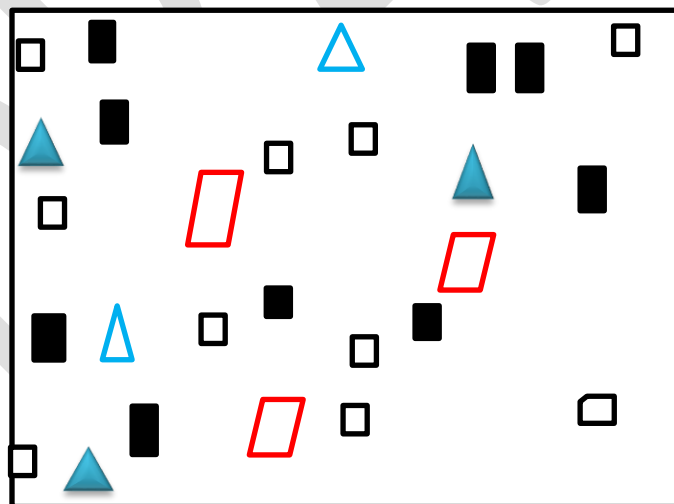

Key

X-Low income -<100

X-Medium -100 -500

X-High >500
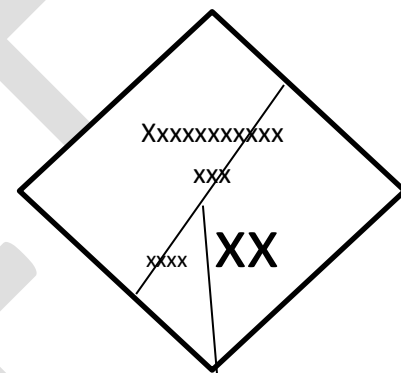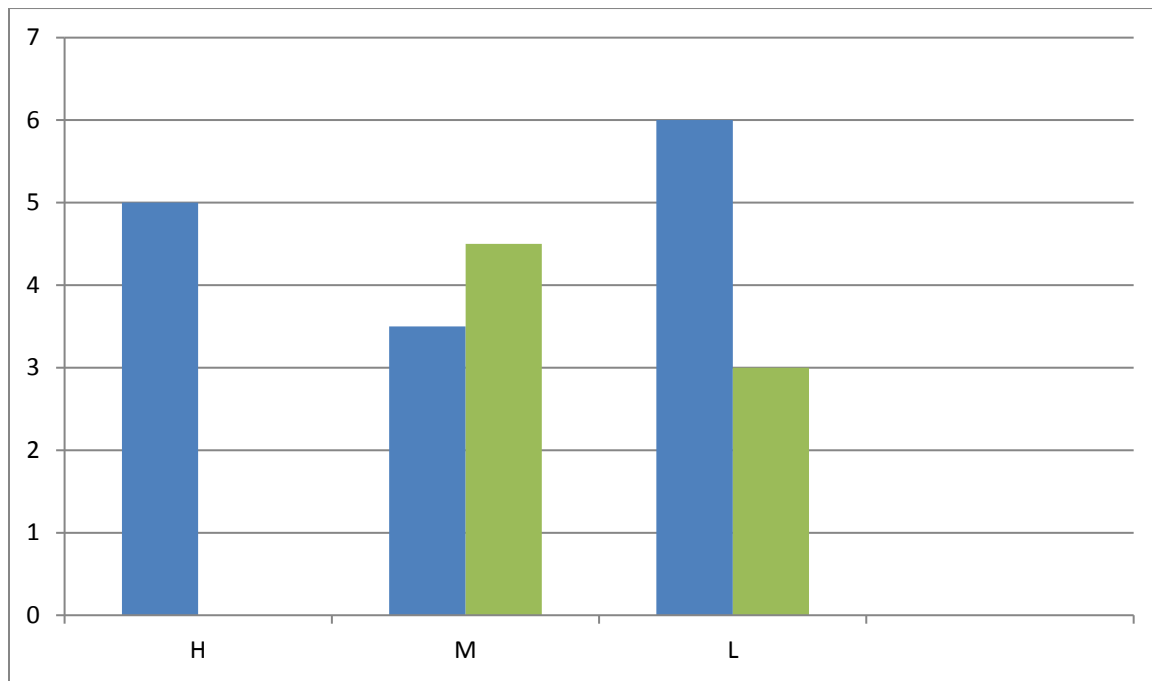
Income

Areas

RCMRD DAIRY FARMING PROJECT

Key

HH ☐ -Before the project

■ -After the project

△

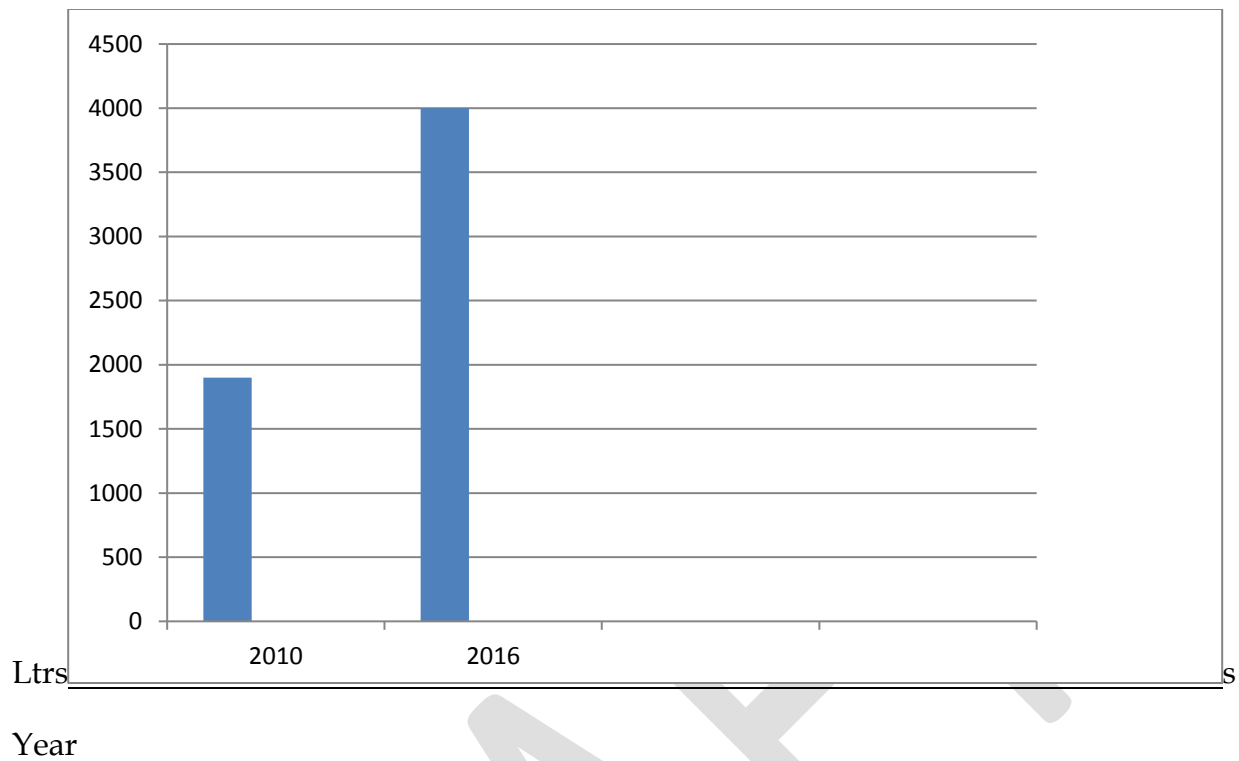CC   -Before the project

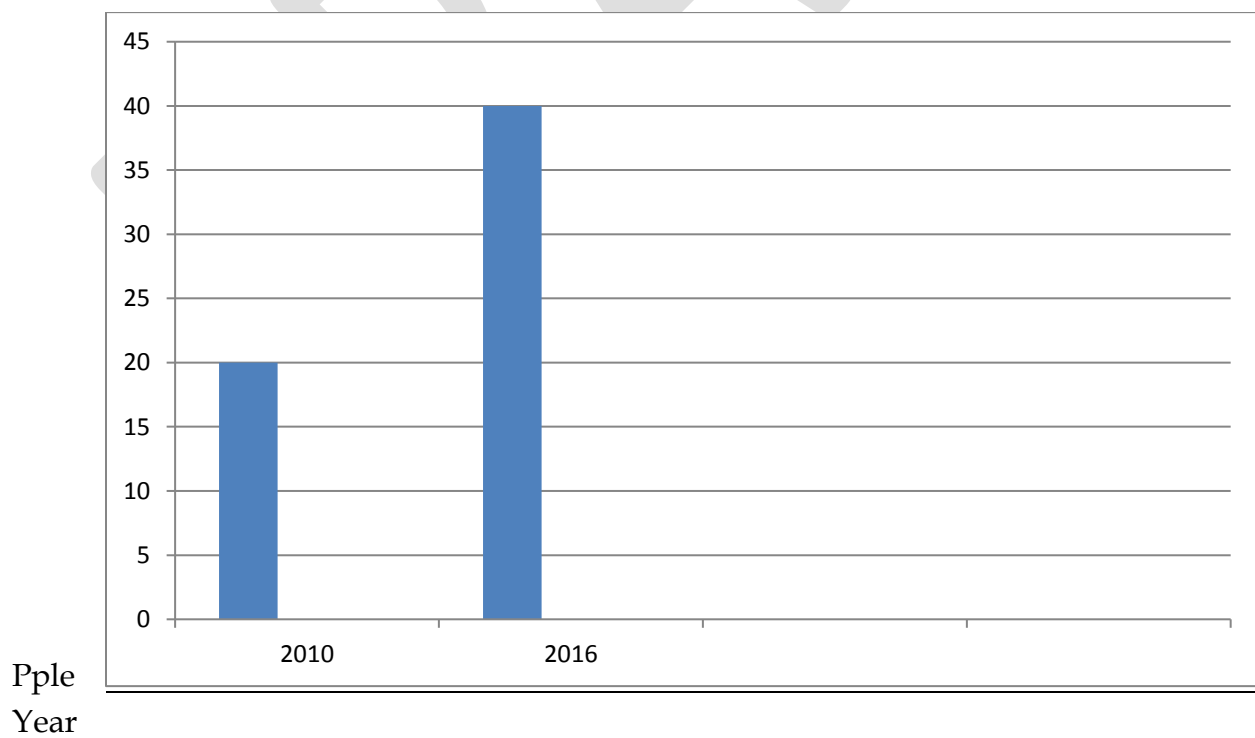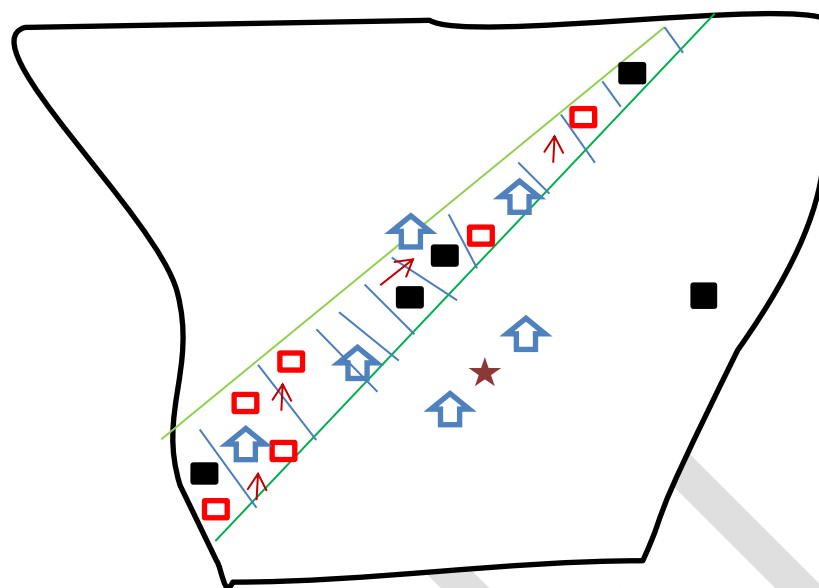-After the project

- Grazing Land

HH Income

Dollar
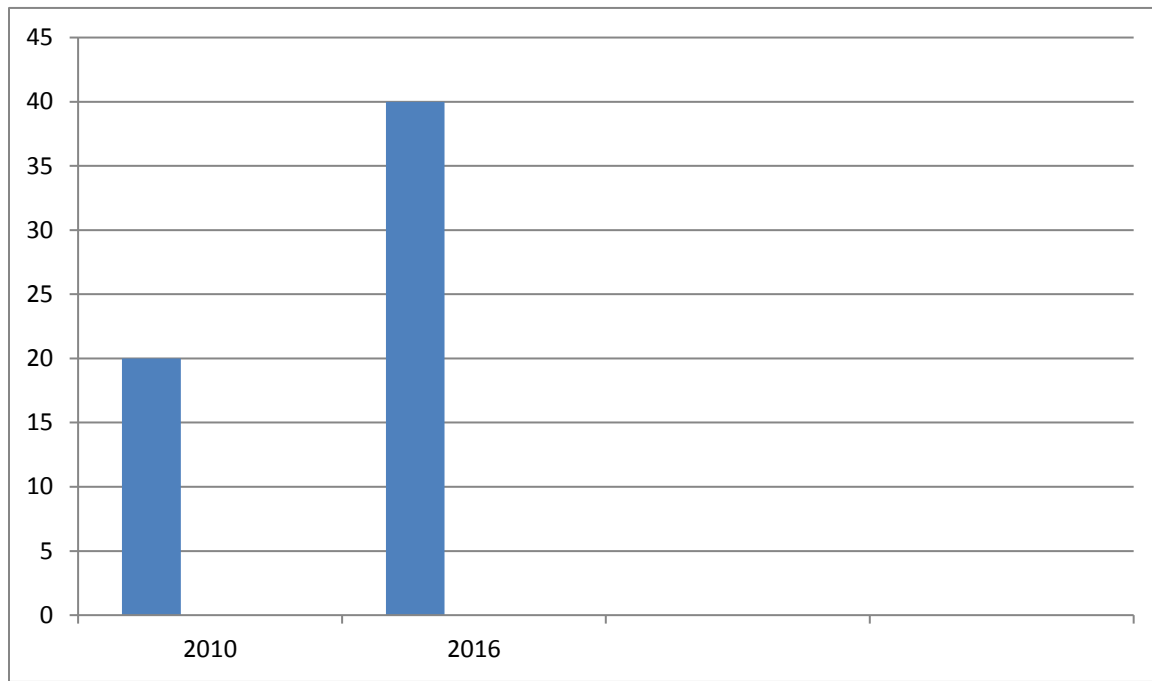
Year

Total Milk Production

Ltrs

Year

Number of individual in dairy production

Pple

Year

Concentration of dairy cows/farmers

LEGEND country boundary
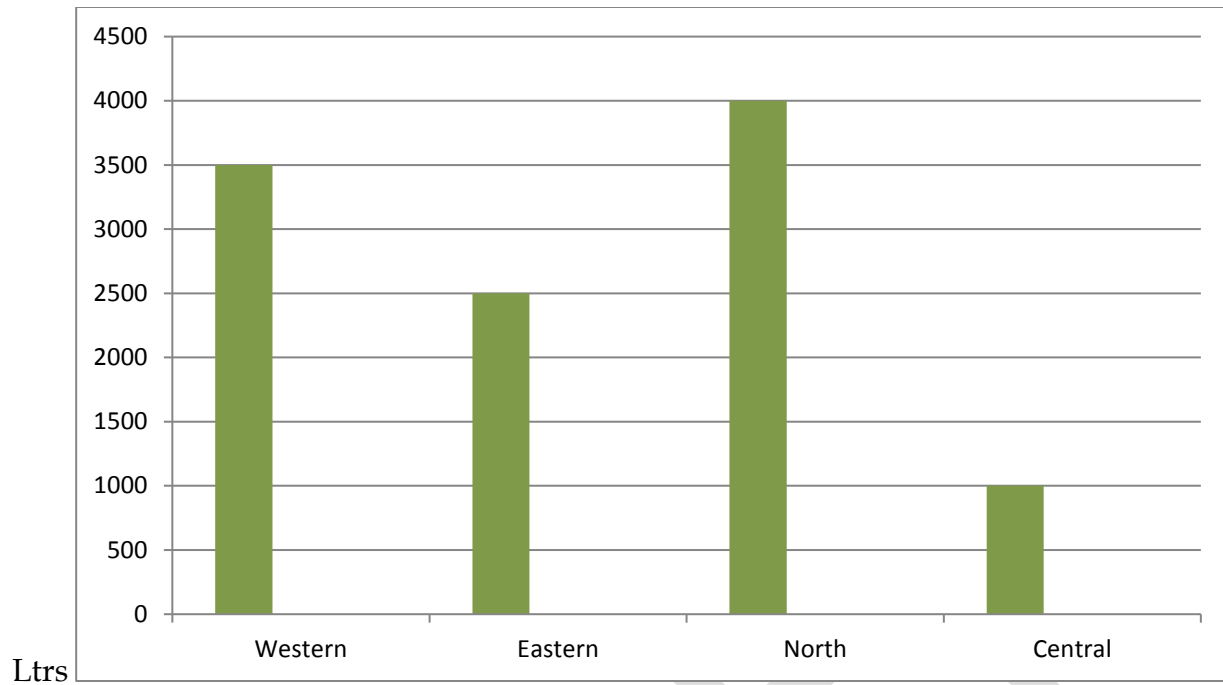
Cattle corridor-

Cattle –■

Processing plant-⇧

Trainings □

Increase in incomes↑

Capital city -★

Milk Production by Region

Production of milk per region

GLOSSARY

- ▪ Inputs: Resources required in achieving outputs. They include money, equipment and human resources.

- Outputs: tangible results of the input –Farmers trained, farmers groups established.
- Outcomes: how the outputs have contributed to an expected change in the situation which was to be addressed by the project. The outcomes also indicate the effectiveness of the project in achieving its overall objective.
- Impact: is the long term result of the outcome. The impact includes the overall social, economic, and other developmental contribution of the project to the community. Impact can only be assessed five years after the project using a representative sample for the survey.
- Indicators: measure the achievements of the outputs, outcomes and impact. They are measurable, accurate, verifiable, specific, time bound, simple, and easy to understand.
- Direct Beneficiaries: people who benefit directly from the services provided by the project
- Monitoring: Monitoring; an ongoing and systematic activity to track whether activities are being carried out as intended.
- Evaluation; an assessment of the relevance, efficiency, effectiveness, performance and sustainability of a project.