QUALITATIVE OUTCOME STUDY THE CONTRIBUTION OF THE CGIAR RESEARCH PROGRAM ON LIVESTOCK TO LAND-USE PLANNING PROCESSES IN ETHIOPIA, KENYA AND TANZANIA

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LIST OF ABBREVIATIONS AND ACRONYMS

CCRO	Certificate of Customary Right of Occupancy
CELEP	Coalition for European Lobbies on Eastern African Pastoralism
CRP	CGIAR Research Program
DC	District Commissioner
EU	European Union
FCDC	Frontier Counties Development Council
GIZ	German Development Agency
IFAD	International Fund for Agricultural Development
ILRI	International Livestock Research Institute
JVLUP	Joint Village Land Use Plan
KII	Key Informant Interviews
KINNAPA	Short for the Pastoralist NGO founding villages namely Kimana
	Kibaya, Njoro, Ndaleta plus two others in Kiteto District
LUP	Land Use Planning
MLF	Ministry of Livestock and Fisheries Development
NGOs	Non-Governmental Organizations
NLUPC	National Land Use Planning Commission
OLENGAPA	A name used to refer to the four adjacent villages Orkitikiti,
	Lerug and Ngapapa and Engang'uengare, which together
	developed a JVLUP
OLKA	OLENGAPA Livestock Keepers Association
PLUP	Participatory Land Use Planning
PRM	Participatory Rangeland Management
RECONCILE	Resource Conflict Institute
SRMP	Sustainable Rangeland Management Project
TNRF	Tanzania Natural Resource Forum
UNCCD	United Nations Convention to Combat Desertification
VC	Village Councils
VLA	Village Land Act
VLUP	Village Land Use Plan
WPLUP	Woreda Participatory Land Use Planning

EXECUTIVE SUMMARY

ILRI'S RESEARCH AND POLICY ENGAGEMENT BRIEF

The international community invested more than US\$1.8 billion in global livestock research from 1975 to 2018 and most of this investment has been publicly financed for International Livestock Research Institute (ILRI) Sub-Saharan Africa programs (McIntire & Grace, 2020). In the mid-1970s, at the time of its creation, ILRI's predecessors included the International Livestock Centre for Africa and the International Laboratory for Research on Animal Diseases before it became a member of Consultative Group on International Agricultural Research (CGIAR), a global research-for-development partnership of 15 centers working with hundreds of partners around the world for a food-secure future. Since then, ILRI has engaged in several research programs, including those related to animal genetics, production and health, primary production and tropical livestock systems.

In Ethiopia, Kenya and Tanzania, ILRI has leveraged its membership to ILC and as the ILC's coordinator for rangelands initiative to drive several research and policy support programs to national governments in collaboration with national CSOs through national multi-stakeholder platforms. In Tanzania, ILRI is an active member of the National Engagement Strategy platform championed by ILC.

In these three countries, rangelands face several challenges including environmental degradation, urbanization, climate change and population growth. Specifically, population growth and urbanization have resulted in fragmentation of previously existing rangelands as competition for land is increasing due to the demand for multiple uses, for example, industrialization and cultivation. In response to the government's requests to address challenges facing rangelands, ILRI has been working with ILC, of which it is a member, government partners and in-country NGOs to support research for developing land-use planning processes in pastoral areas through various initiatives under the umbrella of the CGIAR research program on Livestock and on Policies Institutions and Markets. Through these research and policy support initiatives, ILRI and its collaborators have developed innovative and sustainable approaches such as woreda (district) participatory land-use planning (WPLUP), joint village land-use planning (JVLUP) and County Spatial Planning (CSP) in Ethiopia, Tanzania and Kenya respectively. It has also supported research into piloting group titles to land that are often more appropriate than individual land titles, particularly in pastoral communities.

Through the WLPUP, CSP and JVLUP processes, ILRI, as a member of ILC, government and non-government actors supported participatory land-use planning in these countries. ILRI's research intervention outputs included

- (i) developing manuals and other guidance and training materials;
- (ii) policy dialogues and other workshops;
- (iii) developing blogs, policy briefs and other communications;
- (iv) capacity building; and
- (v) piloting the land-use planning processes.

While these processes are still in the early stages of being ready for widespread upscaling, activities in Tanzania are further along compared to Kenya and Ethiopia. However, sufficient progress has been made to assess and document outcomes in all three countries. To ensure consistency, this report uses the term 'participatory land-use planning' which is an inclusive land-use planning process that considers participation of all parties, especially diverse groups of rural communities to refer to all ILRI's research and policy support in Ethiopia, Kenya and Tanzania.

ABRIDGED FINDINGS

Innovation

ILRI's research and policy support have led to innovations and improvements in participatory land-use planning processes in all three countries. The joint village land-use planning in Tanzania is the most innovative tool which until ILRI's support and intervention was not mentioned in any of the country's natural resources policies and laws but it is now included in the National Land use Planning Guidelines of 2020. In Ethiopia, the woreda participatory land-use planning was not practiced and Kenya's county spatial planning was not widely practiced in the country even though it is provided for in the country's constitution.

Use of manuals, toolkits and data by local and national governments

In these three countries, the manuals, toolkits and data that ILRI helped develop are used by local, county and national governments for policy deciding and implementating participatory land-use planning processes. These include Ethiopia's woreda participatory land-use planning manuals for different uses, Tanzania's Joint Village Land use Planning and all toolkits and annex to county spatial planning processes in Kenya.

Improved capacities of local, county and national government institutions

Through its collaborative research and policy support on land-use planning processes, ILRI contributed to strengthening grassroots, local, county-level coordination and administrative structures. Currently, functioning structures on the ground provide a foundation for rangeland management systems.

Scalability, sustainability and improvement on rangeland and land-use planning processes

ILRI's research and policy support on participatory land-use planning are scalable, sustainable and can be replicated, adopted and improved on to ensure rangeland resources are best-used by pastoral communities. In all three countries, ongoing initiatives by governments, development partners and CSOs are using ILRI supported approaches and tool kits to secure rangelands.

Gender mainstreaming in land-use planning processes

ILRI's participatory land-use planning manuals included information on how to make land-use planning inclusive of all members of the community, especially men and women. These inclusive processes have minimized gender disparity by engaging women in important decisions during participatory land-use planning processes, which is significant progress given that pastoralist traditions have often marginalized women's participation in decision-making processes and property and resource ownership, including land and livestock.

SELECTED KEY RECOMMENDATIONS For Ilri's further research and policy support

- **Review existing national guidelines and tool kits** including those developed through ILRI's research and policy support to determine and update approximate costs of doing participatory land-use planning, especially joint village use planning, woreda participatory land-use planning and county spatial planning. Approximate cost estimates are critical for upscaling the tools and approaches developed and tested by ILRI and its partners in Ethiopia, Kenya and Tanzania.
- Scale up research that informs the uptake of problem-solving research and policy support, such as land-use planning processes through inclusive and sustained partnerships with government authorities and advocacy NGOs.
- Sustain capacity-building efforts because government officials including county, district and national land-use commissions are political appointees and they cannot deliver if they are not trained and because some leave or are transferred or let-to over time after training.
- Research and policy support is a continuous process. ILRI could monitor how the local (county, woreda and village) and national governments are adopting the tool kits it has co-developed with partners to allow for a better understanding of what needs revision.
- Support governments and CSOs to sustain nationwide information-sharing platforms. Already, in Kenya and Tanzania ILRI is an active member of ILC-championed National Engagement Strategy and in Ethiopia, ILC's supported platform is Land for Life. Through ILRI and its partners, support for these platforms should extend and connect with other major networks to reach as many communities as possible.

1 INTRODUCTION

Pastoral rangelands are landscapes that provide forage, water and cover for grazing and browsing animals. Rangelands are characterized by grasslands, shrublands, savannas and woodlands. These vast shrub and grasslands are also an important source of income for local pastoral communities and responsible for climatic change mitigation. Pastoralist societies traditionally had effective, finely-adapted systems for rangeland management and resources. However, the complexity and sophistication of traditional pastoralist land and resource governance systems are not appreciated in national policymaking, hence a need to look for an alternative governance system (Robinson, 2020).

In developing countries, rangelands face several challenges including environmental degradation, urbanization, climate change and population growth (Holechek et al., 2017). Specifically, population growth and urbanization have resulted in fragmentation of previously existing rangelands as competition for land is increasing due to the demand for multiple uses, including industrialization and cultivation. Therefore, due to high demand, ILRI has been working with government partners and in-country NGOs to support the development of land-use planning processes in pastoral areas through various research and engagements under the umbrella of the CGIAR Research Programme (CRP) on Livestock and to a lesser extent the CRP on Policies, Institutions and Markets. Through these interventions, ILRI and its collaborators have developed innovative and sustainable approaches such as wored a participatory land-use planning, joint village land-use planning and sustainable rangeland management. Through its research, it also highlighted how the provision of group titles is often more appropriate than individual land titles, particularly in pastoral communities (Flintan, 2012).

This evaluation aims to document the outcomes of ILRI's research and policy engagement on pastoral rangelands in Ethiopia, Kenya and Tanzania. The key audience for this evaluation report is donor agencies, ILRI and other centers in the CGIAR, county and national government authorities and NGOs leading land-use planning processes. This assessment plan and methods are divided into three main sections. The *next subsection* provides a brief background and context to ILRI's interventions in the three countries, followed by the evaluation objectives and scope. The **second** section provides the methodology the consultant used for this assignment. This includes the outcome harvesting approach methodology and guiding questions and the secondary and primary data gathering techniques. The next section 1.1 describes ILRI's research and policy support background and context. This is followed by *section 2*, the methodology and approach used to guide this evaluation study. Section 3 presents the evaluation results (outcomes and level of achievement of ILRI's work), the factors that enable implementation and uptake of participatory land-use planning in the three countries and factors constraining the implementation of these interventions. Section 4 presents lessons learned during and after implementing these interventions. Sections 5 and 6 present the conclusion and recommendations based on the evaluation.

1.1 BACKGROUND AND CONTEXT

The International Livestock Research Institute (ILRI) has a long history of working in Ethiopia, Kenya and Tanzania. For over 40 years, the international community has invested more than US\$1.8 billion in global livestock research through the ILRI's Sub-Saharan Africa programs (McIntire & Grace, 2020). By working in the three somewhat similar countries, ILRI tapped into cross-learning and peer-to-peer review opportunities among the key implementing partners.

In Tanzania, ILRI has worked since 1994 on issues ranging from market mechanisms to food safety and livestock policy. Currently, ILRI research in Tanzania focuses on sustainable intensification of mixed crop-livestock systems by increasing productivity and value chain development and improving the nutrition and health of poor people by exploiting and enhancing the synergies between agriculture, nutrition and health (ILRI, 2021). Working with the National Land Use Planning Commission to pilot joint village land-use planning (JVLUP), ILRI's research and policy support promoted the use of participatory rangeland resource mapping to document community natural resources as the first step for IVLUP. The process was recorded as more cost-effective, leveraged technical expertise and addressed landscape-level challenges of land management and resource use. Through the Sustainable Rangeland Management Project (SRMP), funded mainly by the International Fund for Agricultural Development (IFAD), ILRI strengthened JVLUP implementation. As a research output, ILRI supported the National Land Use Planning Commission (NLUPC) to develop a manual that documented the mapping process and how to conduct capacity-building training. Collaboratively, the Ministry of Livestock and Fisheries, the NLUPC, local NGOs and district and village governments worked with ILRI's research team to support JVLUP in four clusters of villages across 163,186 hectares of grazing land (Robinson, 2020; ILRI, unpublished monitoring report). JVLUP has proven to be a solution to rangeland fragmentation and rapidly decreasing rangeland areas¹. This modern approach to land-use planning allocates appropriate land-use types and provides planners with sustainable land resource management to improve land productivity and sustainability.

JVLUP is integrated with the revised National Land Use Planning Commission's Guidelines for Integrated and Participatory Village Land Use Planning, Management and Administration in Tanzania. The approach arose as land held by individual villages cannot sustain rangeland production systems. Tanzanian legislation supports JVLUP to be carried out when villages share land and water resources which has, in turn, ensured the mobility of pastoralists and hunter-gatherers and addressed land-use conflicts from competing land users. Government institutions responsible for land-use planning, donor agencies, national and international NGOs, were responsible for the existing JVLUP regime in Tanzania because villages alone are too small to address many of the land and resource use challenges, especially where livestock keeping is central to people's livelihoods and grazing land and water points are shared by several villages (Flintan, 2012).

¹ The model is currently practiced in Tanzania. Refer to the **OLENGAPA case**.

In Ethiopia, ILRI works with national organizations to achieve the government's Growth and Transformation Plan and the Ministry of Agriculture's Agricultural Growth Program. National partners include federal ministries and research institutes, universities, regional state government offices and research institutes, NGOs, the private sector, local communities and their representatives and development projects. Ethiopia ILRI focuses on (i) sustainable intensification of mixed crop-livestock systems through increasing productivity and value chain development and (ii) reduced vulnerability through market development, risk mitigation and livelihood diversification (ILRI, 2021).

In Ethiopia, woreda² PLUP was developed and piloted with technical assistance from ILRI, the German Development Agency (GIZ) and Oxfam with financial support from the Swiss Development Cooperation, the International Land Coalition and Policies, Institutions and Markets CGIAR program. Woreda Participatory Land Use Planning (WLUP) is a government-led process specifically designed for Ethiopia's pastoral areas and involves local communities in land-use planning. Before the scale up, piloting the approach was conducted in Chifra, Afar Region, with support from GIZ and Shinile in the Somali Region with support from Oxfam. The pilot was undertaken in the Chifra Woreda resulted in a woreda level land-use plan while the other pilot had to be stopped midway due to severe drought (ILRI 2019)³.

In Kenya, ILRI works with national organizations to contribute to the country's long-term development blueprint, Vision 2030, which aims to reduce poverty and ensure food security and transform Kenya into a middle-income country by 2030. ILRI has established close links, memoranda of understanding and collaborative research agreements with Kenyan ministries, research institutes, universities and local government offices and NGOs. Other partners include private companies and local communities (ILRI, 2021).

In Kenya, with support from the Feed the Future program of the United States Government and from the Swiss Embassy, ILRI and the Frontier Counties Development Council (FCDC), have developed maps of key rangeland resources such as livestock migration routes, intercounty pastures and conflict hotspots. The maps and geographic information system (GIS) layers are ready to inform county spatial planning processes and have been developed for Garissa, Isiolo, Mandera, Marsabit, Tana River, Lamu and Wajir counties (ILRI 2018). In Lamu County, the county spatial plan is developed and approved but more work is needed to include details for specific sectors and implementing the plan (Robinson et al., 2019).

3 This refers to EPLUAA. 2016. Chifra Woreda Participatory Land Use Plan. Available at *https://cgspace.cgiar.org/handle/10568/100548*

² Due to Decentralisation Policy in Ethiopia, the woreda (district) is the lowest budgetary-supported administrative unit in the government structure because it has the opportunity to influence higher-level land-use planning processes (the region or national), as well as lower ones (the village, kebele or community). This information was accessed at *Participatory-land-use-planning-brief_14th-May-2015.pdf (mokoro.co.uk)* on May 23, 2021

In collaboration with its partners, ILRI interventions have included piloting land-use planning processes in Ethiopia and Tanzania, developing manuals and other guidance and training materials (see below) and policy dialogues and other workshops; developing blogs, policy briefs and other communications and capacity-building. While these processes are still in the early stages of preparation for widespread scaling, activities in Tanzania are further along compared to Kenya and Ethiopia. Therefore, this qualitative outcome study is conducted to document and disseminate ILRI research and policy support outcomes, which will also inform the scaling of their research in the future.

This evaluation provides an opportunity for ILRI and implementing partners to assess and reflect on the outcomes of ILRI's research and policy engagement in securing rangeland resources. It documents the outcomes of ILRI's testing and piloting tools for improving secure rangelands and land-use planning at different scales, then influence a more enabling environment for their uptake and scaling up by the government. The research and policy engagement was carried in Ethiopia, Kenya and Tanzania because livestock livelihood activity is a major economic activity in each country. The main audience for this evaluation report is the major donors and funders of the Consultative Group on International Agricultural Research (CGIAR). Specifically, the study documented the following for the ILRI interventions: (i) outcomes and level of achievement, (ii) supporting factors, (iii) constraining factors and (iv) recommendations for further engagement. PLUP manuals and guidelines developed with the support of ILRI research include:

- Woreda Participatory Land Use Planning (WPLUP) for Pastoral and Agropastoral Areas. Volume 1. Manual. Government of Ethiopia.
 Available at *https://cgspace.cgiar.org/handle/10568/99262*
- Woreda Participatory Land Use Planning (WPLUP) for Pastoral and Agropastoral Areas. Volume 2. Toolkit Worksheets. Government of Ethiopia.
 Available at *https://cgspace.cgiar.org/handle/10568/99457*
- Participatory rangelands resource mapping in Tanzania: A field manual to support planning and management in rangelands including in village land-use planning.

http://cgspace.cgiar.org/handle/10568/51348

- Uchoraji Shirikishi wa Ramani ya Rasilimali za Nyanda za Malisho nchini Tanzania. https://www.landcoalition.org/sites/default/files/documents/resources/ rangelandsguidelinesswweb.pdf
- County Spatial Planning in Pastoral Areas: Annex to the County Spatial Planning Monitoring and Oversight Guidelines. *https://hdl.handle.net/10568/106342*
- County Spatial Planning in Pastoral Areas. Toolkit (I): Pre-planning, visioning and objective setting. Nairobi. National Land Commission. *https://www.landcommission.go.ke/media/erp/upload/csp_toolkit_1.pdf*
- Country Spatial Planning in Pastoral Areas. Toolkit (II): Research, Mapping and Situation Analysis. Nairobi. National Land Commission. https://www.landcommission.go.ke/media/erp/upload/csp_toolkit_2.pdf
- County Spatial Planning in Pastoral Areas. Toolkit (III): Developing Scenarios and Formulating Plan Proposals. Nairobi. National Land Commission. *https://www.landcommission.go.ke/media/erp/upload/csp_toolkit_3.pdf*

1.2 OBJECTIVE OF THE EVALUATION

The objective was to undertake a qualitative assessment of the research outcomes of the Livestock CRP's engagement in land-use planning processes in Ethiopia, Kenya and Tanzania to:

- (i) Document policy support outcomes and level of achievement reached;
- (ii) Highlight factors supporting and constraining policy support achievements; and
- *(iii)* Make recommendations for further policy support by ILRI with national land use planning processes.

1.3 SCOPE OF THE EVALUATION

The consultant activities included documentation that reflected:

- *(i)* Better stakeholder appreciation for the potential contribution of land use planning;
- (ii) National government actors making use of materials developed by, or in partnership with, ILRI in training, oversight and other types of support to land-use planning processes;
- (iii) Government land-use planning frameworks moved toward implementation;
- (iv) Materials development by the CRP/ILRI used in planning activities; and
- (v) Specific characteristics of pastoral systems are considered in planning activities.

The consultant interviewed stakeholders from the following departments and agencies in Tanzania, Kenya and Ethiopia via Zoom calls and meetings:

- *(i)* National Land Use Planning Agencies The National Land Commission of Kenya and the National Land Use Planning Commission of Tanzania;
- (ii) Livestock and pastoralist development-related ministries;
- *(iii)* Personnel from subnational government bodies (district, woreda, county land and livestock officials);
- (iv) Personnel from other donor agencies and international and multi-lateral organizations supporting land governance initiatives in Tanzania, Kenya and Ethiopia GIZ in Ethiopia and FAO in Kenya and stakeholders from civil society and other sectors of government RECONCILE (Resource Conflict Institute) in Kenya, KINNAPA Development Association and TNRF (Tanzania Natural Resource Forum) in Tanzania.

To gather supporting information, the consultant:

- (i) Reviewed documents provided by ILRI and by government partners;
- *(ii)* Engaged with personnel from ILRI, who introduced government partners and other stakeholders and provided documentation;
- (iii) Developed the methodology in consultation with ILRI personnel; and
- *(iv)* Developed and submitted a final draft report based on comments provided by the client.

2 METHODOLOGY AND APPROACH

This assignment comprised a complex intervention implemented in three countries with diverse actors, contexts and political considerations. The consultant thus adopted outcome harvesting as the main methodology to carry out the proposed qualitative outcome study. Below is a brief highlight of the outcome harvesting conceptual framework and its suitability for this assignment.

2.1 STUDY DESIGN AND METHODOLOGY

The data for this report was gathered through a combination of qualitative methods (document reviews, newspaper articles from international and local news about rangeland management, land-use planning and key informant interviews) to allow for analysis of data obtained from primary and secondary sources.

2.2 CONCEPTUAL FRAMEWORK

Outcome harvesting is an evaluation approach that allows for the identification of emerging changes by collecting examples, evidence of actions, relationships, policies and practices and then working back to determine whether and how an intervention has contributed to these changes (Wilson-Grau, 2015). The approach was used to document progress made by ILRI in policy support and the following four stages.

2.2.1 Outcome Harvest stakeholder mapping

This included identifying stakeholders in the ILRI interventions. Stakeholders are core partners who hold important information about ILRI's implementation of interventions and possess information about the outcome of ILRI's interventions. Harvest stakeholders included National Land Use Planning Commission, Ministry of Livestock and Fisheries Development, Kiteto District Council (Land, Livestock and Community Development Officers), IFAD, ILRI and SRMP focal staff personnel and local partner organizations for Tanzania and similar institutions in both Ethiopia and Kenya.

2.2.2 Outcome Harvest reference document review

This included collecting ILRI's intervention outputs used by stakeholders to influence change in the land-use planning practices in their respective countries. The consultant obtained initial ILRI intervention documents and materials from the client. The review focused on published manuals, training guidelines, policy briefs, workshops proceedings, development of blogs and other communications and strategic documents currently used by the government to guide participatory land-use planning and rangeland management practices in the country. The interviews explored how the outputs influenced change in land-use planning practices and included a collection of examples, actions, relationships, policies and practices. Guiding questions are detailed in *Annex 1*.

2.2.3 Outcome Harvest analysis and presentation

Content analysis was used to identify common thematic patterns in ILRI's important research and engagement outcomes. The frequency at which outcome information was repeated by different stakeholders during interviews signified specific ILRI interventions outcome patterns realized by stakeholders. To ascertain facts by interviewees, all information produced by one stakeholder was triangulated with other stakeholder interviews and with secondary reviews.

2.3 DATA COLLECTION METHODS

Data was gathered through a combination of research techniques, particularly, qualitative methods (document reviews, newspaper articles from international and local news about rangeland management, land-use planning and key informant interviews) to allow a qualitative analysis of data to be obtained from primary and secondary sources.

2.3.1 Secondary data collection methods

This method focused on gathering ILRI intervention documents as shown in the second step of the outcome harvesting methodology. Documents for review included but were not limited to:

- 🔰 🛛 ILRI intervention initial ideas
- ILRI intervention proposals
- Annual reports
- ILRI interventions outputs (Annex 4)
- Other ILRI interventions documents

2.3.2 Primary data collection methods and analysis

Because of the COVID-19 pandemic, the consultant could not travel to the ILRI intervention sites and instead relied on key informant interviews (KIIs) as the main source of primary data. ILRI intervention teams provided enough contact details (emails) for ILRI interventions partners consulted during this assignment. The consultant conducted key informant interviews (KII) with National Land Use Planning Commission, Ministries of Livestock and Fisheries Development in Ethiopia, Kenya and Tanzania, development agencies, district and county staff personnel and local partner organizations. In total, 16 key people from partner organizations and collaborators were interviewed. Content analysis identified critical points that were then coded under each evaluation criteria highlighted above. All information was triangulated with project reports and interviews.

2.4 EVALUATION STUDY ETHICS

The consultant abided by high standards of research ethics such as securing prior informed consent, assurance of anonymity, the confidentiality of names, personal information and any other considerations needed.

2.5 LIMITATIONS

The main methodology used for this evaluation, Outcome Harvest has several limitations and challenges. It requires time and skill to identify and describe highquality outcomes, engage those who influenced the outcomes and focus on identifying outcomes and working back. Some beneficiaries interviewed were not familiar with this approach and found it difficult to identify outcomes and then explain how it happened (Wilson-Grau and Britt, 2012). To mitigate this effect, the consultant made every effort to ensure that all intervention beneficiaries understood their role in the assignment and the identified outcomes.

3 EVALUATION RESULTS

Based on ILRI research and policy support documents review, consultations with ILRI's staff and interviews with government stakeholders, local, national and international NGOs the study established these outcomes for Tanzania, Kenya and Ethiopia. As explained below, there are more documented outcomes in Tanzania because ILRI's research and policy support have taken much more time in Tanzania than in the other countries.

3.1 ILRI RESEARCH AND POLICY SUPPORT OUTCOMES

3.1.1 Tanzania

Innovation

ILRI research and engagement contributed to the implementation of key innovations such as Joint Village Land Use Planning in Tanzania. The concept of joint village land-use planning was not specifically covered in Tanzanian land laws, instead, the laws provide for shared management of natural resources such as grazing areas and water across administrative boundaries and this was used as a basis for developing the JVLUP approach. Previously, villages hosted separate resources and sharing was difficult and sometimes resulted in land-use conflicts. Establishing the JVLUP formed the basis for issuing group certificates of customary rights of occupancy (CCRO) which are more appropriate for communal land and resource governance. In Tanzania, ILRI research and policy support, especially the support provided through the Sustainable Rangeland Management Project (SRMP) led to implementing joint village planning across three villages. A fourth village joined later to form the first cluster of JVLUPs in Kiteto District Manyara Region called OLENGAPA (named after the four villages involved). Since then, an additional seven villages have joined in more clusters that directly benefited 15 villages in the district. Currently, the JVLUP intervention is one of the successful models that directly benefits pastoralists in the district. There are four Joint Village Land Use Plan clusters (Table 1).

Table 1: Joint village land-use planning information

JVLUP	Hectares of shared grazing area
OLENGAPA (Population estimate 6,000)	30 477
NAPALAI	25 854.26
KIMBO	11 000
ALOLLE (population estimate 10,500)	95 854.87

Source: ILRI (unpublished). Project Activities updates: joint village land-use planning information. Monitoring data draft report, November 2020.

Improved capacities of local, country and national government institutions

In Tanzania, ILRI policy engagement indirectly contributed to the establishment of rangeland management institutions, (associations) which are important for managing rangeland use. In the first cluster OLENGAPA, ILRI facilitated processes to establish *OLENGAPA Livestock Keepers Association* (OLKA) with 53 founding members and most households from partner villages as associate members. The association's constitution was developed and the association was officially registered on 11 September 2015. The association received a CCRO on behalf of the villagers and is responsible for the overall management of the OLENGAPA rangeland. OLKA administers management fees. The successes achieved during ILRI's policy engagement are now used as case studies. For example, the secure rangeland of OLENGAPA in Tanzania has become a learning site for other pastoral communities whereby local, national and international NGOs supporting pastoralists take them on field study visits. Similar LKAs were established in the other clusters.

Through its research interventions on land-use planning processes, ILRI contributed to strengthening grassroots and country-level coordination and administrative structures. As a result, functioning structures now provide a foundation for rangeland management systems. OLENGAPA Livestock Keepers Association (OLKA) in Tanzania was formed to manage pastoralists outside the shared resources.

Governments buy-in of land-use planning in rangeland areas

In Tanzania, traditional pastoralist rangelands management systems were not formally recognized by government authorities. However, in 2018, four CCROs were issued to the members of OLKA with members from each village receiving a CCRO for their village. A government official interviewed on 15 June 2021 said that CCROs were essential "if we want to sustain livestock and agro-pastoralism". Management committees have also been established to manage grazing areas, finance and other affairs of the grazing clusters. Additionally, on 14–15 May 2018, the Tanzanian *Minister for Livestock and Fisheries* (MLF) met OLENGAPA members and was inspired by the rangeland initiative which was a great step toward the establishment of other joint rangelands in the country⁴. In the meeting, the minister encouraged the additional establishment of the JVLUPs. There is now a commitment to upscale and secure rangelands in Tanzania.

Gender mainstreaming in land-use planning processes

In Tanzania, ILRI's interventions engaged women in identifying resources and allocating land for different uses during the participatory land-use planning process, several exchange visits and activities conducted when implementing such interventions. One respondent interviewed on 12 June 2021 said that ILRI works with stakeholders on various issues including spatial planning but also on ecosystem, goods and services, livelihood issues, gender issues and climate change. He also said that the JVLUP manual included information on how to make land-use planning inclusive of women.

⁴ The coalition of traditional pastoralist villages that formed the rangeland areas from four village clusters in Kiteto district, Manyara region.

As a result of these interventions, gender disparity has been minimized by engaging women in important decisions during participatory land-use planning processes, which is good progress given that pastoralist traditions have often marginalized women's participation in decision-making processes and property and resource ownership, including land and livestock. Reports and interviews indicate that both men and women have positively changed their outlook on women's engagement in decision-making processes, and women said their outlook on important decisions in land and land management has changed for the better. More interviewed stakeholders pointed out that one of the key outcomes of the ILRI interventions is the changing patterns among pastoral communities, especially the engagement of women in land-use planning processes.

Scalability, sustainability and improvement on land-use planning interventions

ILRI's interventions on participatory land-use planning are scalable, sustainable and can be replicated, adopted and or improved to ensure rangeland resources are best used by pastoral communities. In early 2018, the Tanzania Natural Resource Forum (TNRF), working with the Ministry of Livestock and Fisheries (MLF) and international partners, Resource Conflict Institute (RECONCILE) from Kenya, ILRI, Vétérinaires Sans Frontières from Belgium and SOS Sahel from Ethiopia launched a project titled *Piloting of Participatory Rangeland Management* in Tanzania and Kenya. This jointly implemented project in the two countries is funded by the European Union, through IFAD and the Coalition for European Lobbies on Eastern African Pastoralism (CELEP) and the International Land Coalition (ILC). The project scaled up initiatives and borrowed lessons from the experiences of the participatory rangeland management (PRM) in Ethiopia and Sustainable Rangeland Management Project (SRMP) in Tanzania in Kiteto District, Manyara Region. Interviewed stakeholders also said that NGOs such as TNRF and UCRT, which are working to secure rangelands in northern Tanzania, have adopted some concepts and approaches developed during ILRI's research and engagements in Tanzania.

Use of manuals, toolkits and data by local and national governments

In Tanzania, JVLUP is now included in the National Land Use Planning Commission's (NLUPC) guidelines, the National Land Use Framework and the NLUPC's spatial planning guidelines. Both the Ministry of Livestock and Fisheries and the NLUPC are looking to adopt the approach in other areas.

In an interview, the former Director General of the NLUPC, Stephen Nindi, said that he presented the JVLUP approach as a potential tool to secure long-term resources such as communal forests, waterbodies and rangelands. He also presented the same idea to Cameroonian policy and decision-makers who were attracted by it. In an interview on 15 July 2021, an NGO officer said,

"Tools from the project in Tanzania are also used by NGOs like Ujamaa Community Resource Team and Pastoralist Indigenous Non-Governmental Forum, although these organizations do not acknowledge the contribution of ILRI."

Reduced resource-based conflicts and improved social services

ILRI's engagements have significantly reduced resource-based conflicts in intervention areas. Officers from Manyara region in Tanzania confirmed that Kichungu and Makame Divisions no longer have conflicts, which used to recur several times a year as the OLENGAPA cluster, which covers Kichungu Division and Makame Division, is largely occupied by a Wildlife Management Area. In contrast, the other three divisions of Kiteto Districts, which have no participatory land-use planning or joint village land use planning, still experienced recurrent conflicts.

Sufficient pasture land and water for pastoralists in Kiteto District also means they can now settle permanently in their villages. Government and other development actors were then able to establish permanent social service facilities such as schools and hospitals thereby improving community health and education. As one interviewee said on 16 July 2021:

"There are new social services in their villages. In the past, there were no dispensaries as pastoralist movements were unpredictable. Now there is a permanent dispensary. In the past, people moved across areas so the doctors did not have people to attend to but currently they are settled. Dispensaries are used as people no longer migrate further. Schools are currently built in the area. There were only three classrooms back then, now we have seven classrooms for primary school."

Capacity-building and a participatory approach have led to a great deal of community ownership of ILRI's interventions. One Tanzanian officer interviewed on 16 July 2021 said:

"If you invest in communities, people can do a lot. The SRMP was fully participatory. So, if you go there, you see the difference between prior projects and SRMP. Prior projects are called by their names, now people consider SRMP is theirs. They contributed planning knowledge and they do manage land on their own."

Through ILRI research and policy support, partner organization implementing staff participated in exchange visits which exposed project members to new skills for reducing land-use conflict between farmers and pastoralists. For example, from the Cameroon study tour attended by Tanzanian members, conducted on 2-24 February 2018, one tool of interest to the participants was the concept of 'alliance farming' where a contractual agreement is established by a farmer and a pastoralist which allows the pastoralist to graze on the farmer's fields post-harvest. This arrangement provides for mutual benefits; the pastoralist accesses feed for the cattle and the farmer gets a manured field.

3.1.2 Kenya

Innovation

Kenya's county spatial planning, although provided for by the Constitution, has not yet been widely practiced. County spatial planning supports planning to share resources such as grazing areas and water uses across administrative boundaries within counties. In Kenya, a senior official in the National Land Commission explained that as a commission they are concerned with developing guidelines for land-use planning including county spatial planning. They know in Kenya, over 70% of the land is in arid and semi-Arid (ASAL) areas famously known as the ASAL Region (Interview, 22 June 2021). ILRI has collaborated with the National Land Commission over many years, co-implementing the ILC Rangelands Initiatives. ILRI researchers informed the Commission of the work they were doing in the ASAL Region. They had undertaken several research projects in this region and helped the Commission's land-use planners to develop three tool kits. Their knowledge of the rangelands in the ASAL Region helped the National Land Commission understand the special conditions of this region. Another respondent said that before ILRI's research and policy support, "very little planning happened in the ASAL areas" (Interview, 22 June 2021).

Improved capacities of local, country and national government institutions:

During its research and policy engagement on rangeland issues in Kenya, ILRI recognized that the existing guidelines for undertaking county spatial planning lacked detail on how to undertake such planning. On this basis, ILRI collaborated with the government of Kenya and other partners to develop an annex for the county spatial planning guidelines and associated toolkits. Key ILRI collaborators include the Kenya National Land Commission, FAO and RECONCILE. One interviewee said the toolkits had been adopted by three counties (Laikipia, Marsabit and Tana River) to implement participatory land-use planning, including in rangelands.

Kenya's framework for land-use planning requires each government to develop a county spatial plan. County spatial planning presents a good opportunity for incorporating the rangeland management practices of pastoral communities into a government-recognized framework while protecting key components of pastoral livestock production systems such as migration corridors and developing the livestock sector in dryland areas.

In Kenya, ILRI also supported activities that led to the Frontier Counties Development Council (FCDC) Sector Forum on Land being established. County government Lands and Physical Planning Departments in the FCDC region in northern Kenya came together to form the Sector Forum on Lands to promote collaboration through a small team to coordinate, harmonize and move county spatial planning processes in cost-effective and productive ways. One Kenyan official said in an interview on 8 June 20201 that,

"We were not able to move far because the policy process is hard and technical. So, with the devolved unit, sometimes there is scattered demand for our experts but the FCDC land working group became a very good learning tool for the other counties." Managing and protecting rangelands and enhancing extensive livestock production are matters that cut across county boundaries. Establishing this sector forum helped ensure the development and deployment of effective and synergistic county spatial plans to benefit the whole region. Interviewees in Kenya have ascertained that the FCDC land working group is a "very good learning platform" for the other counties on participatory land-use planning.

Through its research and policy support on land-use planning processes, ILRI contributed to strengthening grassroots and country-level coordination and administrative structures. Functioning structures on the ground provide a foundation for rangeland management systems because research interventions contributed to establishing rangeland management institutions which are important for managing rangeland resource use. In Kenya, the creation of the FCDC Sector Forum on Lands was supported by ILRI and other stakeholders to cost-effectively and productively coordinate, harmonize and guide county spatial planning processes.

Scalability, sustainability and improvement on land-use planning interventions

In Kenya, county spatial planning is gaining momentum with other development partners such as FAO and county and national government supporting such processes. One Kenyan county official interviewed on 8 June 2021, said that county land-use planning "began from ground zero for most of the counties". With ILRI's support, they have now made an inventory of land which will help in spatial planning processes. After the initial seven counties developed maps and GIS data of rangeland resources through ILRI's interventions, two have prepared to develop spatial plans, although they are at different stages and different actors support this process. FAO and RECONCILE, the key organizations which worked with ILRI to implement its initial research and policy engagement on rangelands in Kenya, are leading some initiatives to upscale spatial planning in Baringo and Tana River counties.⁵

Use of manuals, toolkits and data by county and national governments

In Kenya, all toolkits are available from the National Land Commission's website and the Commission's leaders have recommended them as reference documents. For example, the Kenya National Land Commission recommend using the *County Spatial Planning in Pastoral Areas Toolkit* (III): Developing Scenarios and Formulating Plan Proposals, supported by ILRI as "a legitimate advisory to Country Government in Pastoral Areas, a necessary reference and guide in preparing their respective County Spatial Plans." In Kenya, three counties of Laikipia, Marsabit and Tana River have adopted land-use planning tools developed from project spatial planning and other counties are in the process of adopting. An NGO representative interviewed on 10 June 2021 said:

"In Kenya, NGOs and government officials dealing with rangeland resources have got capacity development training and they are now much more aware of the importance of rangelands and the tools they can use in their planning, management and governance. There is national level acceptability and adoptability of the ILRI support land-use planning tools at the county level. Five or seven counties are currently using these tools; 23 counties are still coming up but they are limited by logistical challenges."

3.1.3 Ethiopia

Innovation

In Ethiopia, although the government has plans to execute the strategic land-use planning framework across the country, there was no manual to guide land-use planning at the woreda. Following the decentralization policy in Ethiopia, woreda refers to the lowest budgetary-supported administrative unit in the government structure. Through its research and policy support on rangelands in Ethiopia, ILRI developed and piloted woreda participatory land-use planning as an effective rangeland planning approach. Woreda participatory land-use planning (WPLUP) is a government-led process specifically designed for Ethiopia's pastoral areas and in which local communities are involved in land-use planning. Prior to the scale-up, the piloting of the approach was conducted in Chifra, Afar, with support from GIZ and Shinile in the Somali Region with support from Oxfam. The pilot was undertaken in Chifra Woreda resulted in a woreda level land-use plan while the other pilot had to be stopped midway due to severe drought (ILRI, 2019). To ensure uptake from government and other actors working on rangeland land-use planning processes, ILRI developed the WPLUP manual in a consultative process engaging government officials, communities, researchers and practitioners from development agencies in the country. Building on the ILRI's activities GIZ and the Ministry of Agriculture also developed tools and manuals complementing ILRI's achievements in the country.⁶ These include the *Participatory* Community Activity Planning for Pastoralist Lowlands of Ethiopia, the Field Guide for Technical Implementation and PRA Tools in Participatory Community Planning for Pastoralist Lowlands of Ethiopia: Training Manual for Technical Implementation. The Ministry of Agriculture and the GIZ are implementing Participatory Rangelands Initiatives (PRI II) as a complementary effort to the WPLUP.

Improved capacities of local, country and national government institutions

ILRI research and policy support contributed to strengthening grassroots and countrylevel coordination and administrative structures. Functioning structures on the ground provide a foundation for rangeland management systems because research interventions contributed to establishing rangeland management associations, which are important for managing rangeland resource use. In Ethiopia, Afar and Somali Regions still have in place some rangeland management structures established during the ILRI supported processes.

Scalability, sustainability and improvement on land-use planning interventions

In Ethiopia, woreda participatory land-use planning is envisioned to be replicated with support from GIZ, to scale up the process. Implementing land-use planning is at various scales including the woreda level in the Somali and Afar Regions which are also included in continually updated Ministry of Agriculture's work plan and budget as part of the country's *Growth and Transformation Plan*.

Use of manuals, toolkits and data by local, and national government

In September 2019, the government launched two woreda participatory land-use planning manuals⁷ which ILRI helped write. These were developed through a consultative process including government experts, researchers, practitioners and communities. The government, through the Ministry of Agriculture's representative, said the manuals provide critical guidance for land-use planning in Ethiopia's pastoral areas and encouraged woreda and regional government land experts to apply the approach across the country. The government of Ethiopia shared the process at various national and global level events, including the World Bank Conference on Land and Poverty annual conference of 2016⁸.

8 The paper of from the World Bank conference was accessed through Microsoft Word-GebreMeskel_345_ID5581.docx (core.ac.uk) on May 24, 2021.

⁷ The manuals refer to Woreda Participatory Land Use Planning (WPLUP) for Pastoral and Agropastoral Areas. Volume 1. Manual. Government of Ethiopia. Available at *https://cgspace.cgiar.org/handle/10568/99262* and Woreda Participatory Land Use Planning (WPLUP) for Pastoral and Agropastoral Areas. Volume 2. Toolkit Worksheets. Government of Ethiopia. Available at *https://cgspace.cgiar.org/handle/10568/99457*

4 SYNTHESIS

Through its research and policy support implemented over the years, ILRI's work has made significant achievements in all three countries. ILRI achieved its four stages of innovation (designing, piloting, ready for uptake and taken up by the next user) in Tanzania but not all four in Kenya and Ethiopia. In Tanzania, ILRI's research and policy support on rangeland in Kiteto District is used as PLUP learning sites for government officials and other international land-use planning related institutions, for example, institutions from Nigeria.⁹

In Ethiopia, the study officially adopted ILRI intervention tools and guidelines but it could not establish on-the-ground rollout of tools and guidelines due to COVID-19, ongoing war and significant droughts in Shinile Region. In Kenya, tools and guidelines have been adopted and Kenya is currently rolling out tools and guidelines developed in its respective counties. Other partners who worked with ILRI to develop the initial tools are also rolling out their implementations on the ground. For example, in Tanzania, tools and guidelines were developed, adopted and used by the government and the positive results in rangeland management are strongly evident among pastoralists and other land stakeholders. ILRI's positive outcomes in Tanzania includes (i) improved rangeland management structure; (ii) minimized gender disparity in pastoral communities; (iii) combating desertification by planting trees; (iv) reduced land-use conflicts; (v) providing learning sites for other land stakeholders; and (vi) improved community services in ILRI's intervention areas.

Ethiopia, Kenya and Tanzania share some common features among rangelands and pastoral communities. This helped ILRI arrange exposure and knowledge exchange visits so that policy implementers from other countries could learn from their peers. For example, Ethiopian government officials and other stakeholders said that they learned many lessons from Tanzania because it is highly advanced in terms of securing the pastoralists' land using appropriate approaches and technologies. The Ethiopians also learned from Kenya, which is not far behind Tanzania in reaching significant implementation milestones.

Despite these similarities, the three countries have significant differences. For example, while Ethiopia has a federal government and regional states, Kenya has a national government and county government. Tanzania has a national government and devolved regional authorities. Unlike Ethiopia and Kenya, where the regional and county governments have a significant influence on decision-making processes, in Tanzania, the central government retains a lot of power with the president appointing all key administrative officers at the local level. All these affect research and policy support execution differently.

https://www.landportal.org/debates/2017/learning-initiative-innovative-practices-and-tools-reduce-land-useconflicts-between

Document review and interview results established several factors that contributed to the ILRI research and policy support outcomes detailed above. However, significant outcomes mainly occurred in Tanzania, where ILRI research and policy support progressed more compared to both Ethiopia and Kenya. The report combines these as both internal and external supporting factors and we describe them as observed in each country.

4.1.1 Tanzania

Traditional pastoralist culture of sharing livestock resources enabled piloting land-use planning processes

In Tanzania, the Maasai pastoralist communities speak the same language and graze together in their communally-owned and managed grazing areas. This resource sharing culture and common cultural played a critical role when implementing ILRI's research and policy support in areas dominated by Maasai communities.¹⁰ Helping one Maasai community from one village to share grazing resources with another village was not as challenging as a pastoralist village joining a village dominated by a crop farming community.¹¹

Pre-existing policy, legal and institutional framework

In Tanzania, surveying, mapping and registering rangeland resources were supported by the Village Land Act No. 5 of 1999 (VLA) and the Land Use Planning Act No. 6 of 2007 (LUP Act), which guide local level land-use planning. The VLA (sections 12 and 13) grants power to Village Councils (VCs) and their institutions to prepare participatory village land-use plans (VLUPs). The LUP Act (sections 18, 22, 33 and 35) provides for the formation of planning authorities, functions and procedures of developing participatory VLUPs. It also details approval processes and grants power to VCs to prepare such plans. The VLA of 1999 (section 11 and Regulation 2002 No. 26-35) empowers VCs to enter into joint land-use agreements with other villages and jointly plan, manage and use shared resources. The LUP Act (section 18) provides for the formation of JVLUP authority and (in section 33 (1) (b)) provides for preparing a joint resource management sector plan for the shared resources.

¹⁰ Interviews confirmed that during the land-use planning processes, officers allowed communities to use their local languages such as Kiswahili in Tanzania to increase planning efficiency.

¹¹ Refer the case of Lahoda, Handa and Kisande (LAHAKI) cluster in Chemba District where pastoralists and agricultural communities experienced great tension in the process.

Collaboration and high levels of commitment among the ILRI interventions teams and stakeholders

In Tanzania, the team had a good communication strategy for sharing ILRI intervention results with the public or other ILRI intervention stakeholders. On 10 June 2021, one interviewee said:

"I think ILRI went out of its ways, sometimes individuals can make institution change. I have known ILRI for many years but this time around they realized development thinking is a key thing that took its staff to go focus on research and development and put it into practice. This is out of their normal research confinement. It is because of their engagement with other organizations like NGOs in Kenya and Tanzania that made this possible, looking at things from tenure, livelihood and development angles is what made them very successful in spearheading innovative approaches to secure pastoral rangelands in the three countries of Ethiopia, Kenya and Tanzania."

Using "assess risk prior scale up" approach to determine the risk and test the workability of the innovation

In Tanzania's Kiteto District, adopting the approach to assessing risk before scaling up led to the project establishing the first rangeland PLUP in a cluster of three villages of Lerug, Ngapa and Olkitikiti in 2013, followed by the fourth village, Engwangongare, to form OLENGAPA's¹² first cluster in 2017; the second cluster called ALOLLE¹³ with four villages was formed on 7 September 2018; the third cluster, NAPALAI¹⁴ was formed in late 2018; and the fourth cluster, KIMBO was established in April 2019. The series of dates indicate that the project carefully planned and assessed execution risk before scaling up in other areas. This practice contributed to the success of establishing the four clusters in Kiteto District, Manyara Region.

The quest to resolve land-use conflicts between farmers and pastoralists.

Deadly conflicts have often erupted between pastoralists and farming communities. Pastoralists showed a strong willingness to participate in planning because they were convinced that land-use planning would be a legal mechanism to prevent encroachment on grazing lands by farming communities and/or large-scale investors. Concerns about land-based conflicts featured during project exchange visits by members of villages sharing grazing area which took place on 14 March 2018 in Kiteto District, Tanzania. Also, stakeholder workshops conducted by ILRI in Kenya before county participatory land-use planning indicated that, before the ILRI interventions, stakeholders were concerned with existing land-use conflicts and land encroachment by private investors and other users. During the PLUP in both countries, competing users were also involved in the PLUP processes, providing an opportunity to resolve boundary conflicts and land-use conflicts. The willingness of stakeholders to meet and resolve their differences contributed to the successful execution of the ILRI interventions. ILRI's intervention partners interviewed

¹² Short form for Olkitikiti, Lerug, Engwangongare Ngapa villages of the cluster

¹³ The short form of Amei, Loolera, Lembapuli and Lesoit villages that form the second cluster

¹⁴ Short form for Namelock, Partimbo, Laalala and Ilera villages that form the cluster.

for this evaluation confirmed that in Kiteto, alleviating previous long-term conflicts were a key indicator of the success of ILRI's intervention. The district council and village governments accepted land-use planning as the means to end land-use conflicts in the district. In an interview on 22 June 2021, the Director of rangeland development and feed development for livestock and fisheries, MLF, Tanzania said,

"Recently I went to address one of the challenges facing pastoralists and farmers in Mkuranga District, Coastal Region. After our discussion with district stakeholders, we immediately concluded that the solution is to do JVLUP. The area is common for farming but now pastoralists have moved there and we cannot remove pastoralists. Instead, we must make a way for them to live in harmony with farmers."

4.1.2 Kenya

Pre-existing policy, legal and institutional framework

In Kenya, the legal obligation to develop land-use plans is strong. In an interview on 22 June 2021, one Kenyan official said,

"It is a legal requirement for counties to do spatial planning and spatial planning is enshrined in the constitution. As the Director at the National Land Commission, I have the role to ensure counties do spatial land-use planning and as part of the devolution, counties are gearing to do spatial planning and use their resources."

Traditional pastoralist culture of sharing livestock resources enabled land use planning interventions in their areas

Studies in Kenya found that pastoralists have similar patterns of grazing in communally-owned land and resources. In Kenya, the Maasai pastoralist communities speak the same language and graze together in communally-owned and managed grazing areas. This resource sharing played a critical role in establishing the rangeland plan.¹⁵ Making one Maasai from one village share grazing resources with another village was not as challenging as joining a village dominated by a crop farming community.¹⁶

Collaboration and high levels of commitment among the ILRI intervention teams and stakeholders

Government officials from Kenya have shown significant commitment to ensure ILRI led initiatives succeeded. In Kenya, teams of experts within county governments and the National Land Commission fully engaged with ILRI and NGO teams working on land-use planning processes.

¹⁵ Interviews confirmed that during the land-use planning processes, officers allowed communities to use their local languages such as Kiswahili in Kenya and Tanzania to increase planning efficiency.

¹⁶ Refer the case of Lahoda, Handa and Kisande (LAHAKI) cluster in Chemba District where pastoralists and agricultural communities experienced great tension in the process.

4.1.3 Ethiopia

Pre-existing policy, legal and institutional framework

In Ethiopia, the law recognizes the woreda as the smallest budgetary unit in the country from which the government can collect taxes and allocate funds. The legal rangeland management system falls under the jurisdiction of the users (pastoralists). These policy and legal provisions propelled the implementation of ILRIs interventions in each of the three countries..

Collaboration and high levels of commitment among the ILRI team and country team

Officials in the Department of Agriculture were committed to working with the ILRI team to ensure the design and piloting of woreda participatory land-use planning were completed on time.

4.2 FACTORS CONSTRAINING ILRI RESEARCH AND POLICY SUPPORT ACHIEVEMENTS

The findings from this study show there are several constraining factors to the smooth implementation of research and policy support on rangeland issues in each of the three countries. More constraining factors, however, were observed in Tanzania than in Ethiopia and Kenya because ILRI has conducted research and policy support for a much longer period than in other countries. These factors include but are not limited to the following as disaggregated by country:

4.2.1 Tanzania

Inadequate access to rangeland information, equipment and technology

Tanzania SRMP national dialogue held on 26-27 February 2018 in Morogoro confirmed that the JVLUP process is challenged by inadequate spatial data and a lack of base maps, high-resolution satellite imagery and underlying technology, including GIS, remote sensing, surveys and mapping. Other challenges include the lack of experience in VLUP approaches and techniques among members of district participatory land-use management teams and CSOs, inadequate resources to conduct PLUP and reliance on donor-funded initiatives. These challenges affect PLUP implementation speed.

The Tanzania National Land Use Planning Commission's Guidelines for Village Land Use Planning, Administration and Management (the NLUPC Guidelines of April 2013 revised version) detail six main steps in developing participatory VLUPs. Despite this guidance, limited resources have constrained village land-use planning, which has rarely gone beyond Step 4 of 6¹⁷. Support for the actual implementation of plans is lacking or extremely limited, which has resulted in the government's increased reliance on donor funds and on projects such as the SRMP to support such processes.

¹⁷ The steps are (i) preparations at district level; (ii) participatory rural appraisal (PRA); (iii) mapping existing village land uses; (iv) participatory village land-use planning; (v) implementation of village land administration: enhancement of security of tenure; and (vi) detailed village land-use management planning.

The marginalization of indigenous knowledge on pastoralism and rangelands management

At the SRMP national dialogue held on 26-27 February 2018 in Morogoro it was agreed that among the key factors hindering rangeland interventions was that despite indigenous pastoralist knowledge on rangeland management and use being presented to government officials, it was neglected. Appreciating pastoralist indigenous knowledge of rangelands is important to the PLUP process.

Disagreements between competing village land users also hindered implementation. For example, disagreements arose in Chemba District, Dodoma, with some agricultural groups resisting (sometimes violently), previously agreed to grazing land allocations. In OLENGAPA cluster, Kiteto District, Manyara Region, although villages had formerly agreed to share 32,149 hectares for grazing, as land demarcation proceeded it emerged that villagers had reduced the shared area to 12,187 hectares (Kalenzi, 2017). Pastoralists and agriculturalists made this decision as, despite the value of grazing land, more agricultural land was needed to diversify livelihood options.

Politicization of the PLUP processes seriously affect the operationalization of PLU plans

In Chemba District, PLUP processes were politicized, as local elections were underway and politicians took advantage of this to rally support for political gains¹⁸. Despite the involvement of the *District Commissioner* (DC), the process in LAHAKI stalled and reached an impasse that continues; agriculturalists who have encroached into the grazing area refused to back out.¹⁹

Lack of awareness and misconceptions about PLUP processes among local communities and their leaders delay PLUP processes

Boundary disputes were also fuelled by villagers and their leaders having limited awareness of land laws. For example, much time and effort was wasted discussing and arguing over moving village boundaries to justify individuals' user rights and resource ownership, even though boundaries would not make a critical difference when resources are shared. Because the process of joint land-use planning was new, some villages found it difficult to grasp, despite a history of shared resource use.

Power relations and corrupt practices among community leaders and wealthier people

The experiences in the LAHAKI cluster highlights that while decentralizing power is critical for local community access, use and control of land and resources, local elites can easily abuse power for personal gain and interest. Village leaders and wealthier community members dictated Village Assembly²⁰ decisions, such that they favored personal rather than community interests.

¹⁸ Politicians were pro agriculturalists opposing the presence of immigrating pastoralist from other regions. The agriculture community presented a dominating community with majority voters.

¹⁹ Represent Lahoda, Handa and Kisande villages cluster.

²⁰ This is the ultimate body dictating decisions in the village and comprises of all village members. The assemblies are conducted once per quarter to make important village decisions.

Lack of clear selection criteria for villages to undertake a JVLUP led to inefficient selection of villages entering rangeland clusters.

Some villages not included in the joint land-use agreement in OLENGAPA cluster still use resources, which could lead to conflict, threatening the sustainability of OLENGAPA partnership unless further terms are made in the agreement to include them. This problem occurred due to a lack of selection criteria for appropriate JVLUP, which then led to joint village cluster formation with problematic villages in Chemba District, Dodoma Region.

4.2.2 Kenya

Inadequate resources to conduct PLUP and reliance on donor-funded initiatives

In all counties investment of public or state funds is low, therefore, even though counties in Kenya are mandated to conduct spatial planning, they do not because such plans are not in high priority to policy makers and politicians who prefer quick result initiatives – building roads, schools etc. In Kenya, an official from the NLC explained in his interview on 22 June 2021:

Unless we plan resources, we will not able to move forward. ... I would wish we expand this project because you need to map and zone livestock routes and address climate change.

Scarce financial resources are a significant constraining factor for scaling up community-level PLUP.

4.2.3 Ethiopia

Invasive species in rangelands reduces pastoralist grazing area, affecting PLUP

In Ethiopia, the shrub tree *Prosopis juliflora* has invaded at least four pastoralist dominated regions and is a challenge to rangeland productivity. The plant is spread by livestock eating it and the seeds are transported via defecation along watercourses. Once established, it is difficult to remove as it grows an impenetrable thicket with sharp thorns making access impossible. The plant prefers riverine areas thus preventing access to rivers and destroying dry season grazing areas.

Inadequate access to rangeland information, equipment and technology

After the piloting woreda participatory land-use planning processes, through ILRI's connection, the *World Agroforestry* (ICRAF) trained officials in the Department of Agriculture to use mobile phone applications for a Land Depiction Mobile Technology to conduct PLUP as a tool to take pictures for soil data, biophysical data collection and land cover and easily get a report.

High levels of staff turnover

The agriculture department is suffering from an expertise shortage because of high staff turnover. For example, most government staff trained in Afar and Somali Region while Woreda Participatory Land Use Planning was piloted have moved to other departments or sectors in the country. Therefore, the department has to train new experts to continue implementing participatory land-use planning.

COVID-19 and security concerns have affected scaling up ILRI's interventions COVID-19 has restricted the pace of implementing interventions due to established COVID-19 health protocols. Security concerns have also created a stumbling block for Ethiopia. The war in Tigray means federal and regional governments have reduced budget allocations for land-use planning as priority budgeting goes to defense and security.

5 LESSONS LEARNED

Based on interviews and secondary reviews, the following lessons were learned..

5.1 POSITIVE LESSONS AND BEST PRACTICE BASED ON ILRI'S RESEARCH AND POLICY SUPPORT EXPERIENCE

- (i) A clear working partnership between research and development organizations such as ILRI, ILC, governments and advocacy NGOs have resulted in wider uptake of research findings and tools co-developed and piloted by ILRI and its partners such as land-use planning approaches. This study highlighted many opportunities for future collaboration and partnership which could deliver excellent outcomes in terms of ILRI's research and policy engagement in both rangeland and livestock system areas.
- (ii) Collaboration between ILRI and local and national governments and CSOs opened communication channels that were important for facilitating ILRI's research data collection, information processing and disseminating research findings, including policy support initiatives. Readiness, openness and possible contribution from national actors is needed to ensure that ongoing collaboration is sustained and addresses challenges facing rangelands and pastoral systems.
- (iii) Capacity-building and participatory approaches have created a sense of ownership by communities and at all levels of government. This has led to a great deal of uptake by communities and governments at all levels of ILRI research outputs and tools such as JVLUP in Tanzania, woreda participatory land-use planning in Ethiopia and guidelines for county spatial planning in Kenya.
- (*iv*) There is fruitful collaboration between ILRI and advocacy organizations at grassroots, county and national levels and regional and international levels. If research organizations understand the need to work with advocacy organizations at all levels and their working partnership is clear, it always results in wider uptake of research findings. ILRI's approach to working with county NGOs and CBOs in countries with deeper community penetration has resulted in wider uptake of PLUP practices in areas where they have been introduced. Local NGOs have participated in the research findings.
- (v) There are potential achievements through effective and strategic collaborations with local and national level actors. Following the successes recorded in Ethiopia, Kenya and Tanzania and the need for support on land-use planning processes, ILRI and its partners have higher chances of raising and mobilizing resources to do more impactful work and sustain that work.

- (vi) ILRI research on rangelands and pastoral systems show that communities have indigenous scientific knowledge of value to research institutions, NGOs and governments. ILRI and its collaborators tapped into this indigenous knowledge and integrated it into the PLUP. In an interview on 16 July 2021, a respondent said, "the knowledge system that the community has is just wonderful. Mostly we stick to modernization to improve human conditions and fail because people cannot understand; but when a community is given a platform to show how land can be managed, we can create sustainable and stable management systems."
- (vii) The 'learning pathway' for Ethiopian government officials introduced by ILRI and its partners proved to be an important platform to strengthen the capacities of local, regional and national institutions and communities. The learning pathway provided an opportunity to scale up and disseminate innovations including tools and approaches co-developed and tested by ILRI and its partners such as JVLUP, woreda participatory land-use planning and county spatial planning guidelines.
- (viii) A clear working partnership between research and development organizations such as ILRI, other ILC members, governments and advocacy NGOs has resulted in a wider uptake of research findings and tools such as the land-use planning tools co-developed by ILRI and its partners.
- *(ix)* Collaboration between ILRI and local and national governments and CSOs opened communication channels, which were important for facilitating ILRI's research data collection, information processing and finally disseminating research findings including policy support initiatives.
- (x) Capacity-building and participatory approaches have led to a great deal of uptake by communities and governments at all levels of ILRI research outputs and tools such as JVLUP in Tanzania, woreda participatory land-use planning in Ethiopia and guidelines for county spatial planning in Kenya.

5.2 NEGATIVE LESSONS LEARNED FROM ILRI'S RESEARCH AND POLICY SUPPORT

- (i) The feasibility of policy support to implement participatory land-use planning approaches must be based on carefully assessing assumptions, such as possible partners' commitment to offering resources and time and financing modalities. These issues need to be addressed in advance through clearly stipulated agreements and or MOUs.
- *(ii)* Language and logistical barriers need to be addressed when designing and implementing the project and future research and policy support initiatives should not ignore these challenges.
- (iii) Entire dependency on ILRI and its external partners for funding research and policy support initiatives at the country level make projects vulnerable to delays and left incomplete when ILRI's direct funding ends and should be avoided.

6 CONCLUSIONS

6.1 OUTCOMES AND ACHIEVEMENTS

Through its research and policy support implemented over the years, ILRI's work has made significant achievements in Tanzania where ILRI achieved its four stages of innovation. In Tanzania, ILRI's research and policy support on rangeland in Kiteto District is used as a PLUP learning site, for government officials and other international land-use planning related institutions, for example, institutions from Nigeria.

The collaboration and partnership established during ILRI's policy support intervention is the key factor that enabled the realization of ILRI policy support outcomes. As the research institution, ILRI works closely with government institutions who are the custodian of land-use framework and policies and local NGOs and CBOs with community reach to facilitate the uptake of land-use planning innovations. The approach eased communication and fast-tracked community and government officials onboarding in ILRI policy support activities implementation.

6.2 SUSTAINABILITY, REPLICATION AND OTHER EFFECTS

A key aspect of ILRI's activities, which is likely to be widely replicated, is its research and policy support toward participatory rangeland management. Given the size and the importance of rangelands globally, ILRI's research is likely to be adopted by government and NGO actors alike. The successes achieved during ILRI's research and policy support are now used as case studies. For example, the secure rangeland of OLENGAPA in Tanzania has become a learning site for other pastoral communities where local, national and international NGOs supporting pastoralists are taking them for first-hand experience.

ILRI's research and policy support on land-use planning is scalable, sustainable and can be adapted or improved on to ensure rangeland resources are best used by pastoral communities. In Tanzania, JVLUP is now promoted by government authorities including the Ministry of Livestock and Fisheries Development and the National Land Use Planning Commission for replication in other areas in the country. In early 2018, the *Tanzania Natural Resource Forum* (TNRF) worked with other partners to execute the *Piloting of Participatory Rangeland Management* project in the same villages where ILRI and its partners implemented JVLUP to ensure the rangeland management structures are strengthened. Manuals produced during ILRI's research and policy interventions are also used by both the government and NGOs, such as *Ujamaa Community Resource Centre* (UCRT) in its facilitation of securing pastoralist lands in northern Tanzania. Kenya and Ethiopia are in the preliminary stages of implementing PLUP tools developed which have been rolled out to counties and woredas. Both ILRI's research and policy support activities also have international impacts following interventional learning and exchange visits made by the Government of Tanzania and NGOs officials who implemented the project to countries like Cameroon and the USA presenting the success stories of ILRI's work. Delegates from Ethiopia and Kenya also participated in exchange and learning visits at OLENGAPA.

6.3 CONSTRAINTS

The ongoing COVID-19 pandemic and the recent in Ethiopia have disrupted the pace at which ILRI policy support activities are implemented on the ground in all three countries. COVID-19 health protocols have limited movement and gatherings which are essential in conducting ILRI policy support activities. The ongoing conflict in Ethiopia has disrupted the government progress on land-use as resources are deployed elsewhere; disrupted settled communities; and, if serious interventions are made, the conflict has the potential to lead to massive relocations affecting PLUP.

7 RECOMMENDATIONS For further research AND Policy Support

These recommendations indicate important areas of research and policy support. Some apply to all three study countries. Country specific recommendations are presented at the end.

7.1 ILRI RESEARCH AND POLICY SUPPORT RECOMMENDATIONS

7.1.1 Research

- (*i*) **Conduct research** and policy support to increase uptake of problem-solving approaches, such as land-use planning through inclusive and sustained partnerships with government authorities and advocacy NGOs. The achievements of successfully piloting and implementing JVLUP as a new land-use planning tool should give the organization leverage to design and implement a more nuanced research agenda for the current challenges facing pastoral communities and agro-pastoralist.
- *(ii)* **Review existing national guidelines and tool kits** including those developed with ILRI's research and policy support to include and update cost estimates for participatory land-use planning, especially joint village use planning, woreda participatory land-use planning and county spatial planning. Cost estimates are critical for upscaling the tools and approaches developed and tested by ILRI and partners in Kenya, Ethiopia and Tanzania.
- *(iii)* Make research and policy support efforts more inclusive starting at the preparation stages by engaging multi-disciplinary teams to get different ideas from different people through inclusive thinking. Ideas shared in joint land village land-use planning shows how beneficial inclusive thinking, planning and implementation can be.
- *(iv)* In collaboration with public and private sectors, ILRI needs to engage other sectors that pose a threat to rangelands such as conservation, agriculture, mining and infrastructure by bringing them together at different stages of its research and policy support. Such collaborations may provide evidence to policymakers about how these sectors can co-exist peacefully in environmentally-friendly ways in planned rangelands.

- (v) Scale up research and policy support that focuses on improving the productivity of secured rangelands. Evidence from secured rangelands in Ethiopia and Tanzania shows that invasive species are jeopardizing rangeland productivity. ILRI, as the leading livestock research institution, can continue implementing research and policy support in these areas to create permanent solutions to remove invasive species.
- *(vi)* Undertake research and establish other viable models and or tools for land-use planning that include other land users' needs. The current research and policy support focuses on the livestock sector with little attention given to understanding that rangelands support multiple land uses including agriculture, infrastructure, wildlife and investment.

7.1.2 Training and capacity-building

- (i) Consider offering continuous training to rangeland planners to ensure the new staff know about the ILRI research outputs and tools they can use to implement participatory land-use planning. Officials in county, district and national government departments and national land-use commissions are political appointees and cannot deliver without regular training, as they leave a department. In partnership with governments and other development partners, ILRI might train routines on the pastoral and rangeland issues for government, the private sector and NGOs officials. The usual land-use planners in the East African and IGAD regions do not have specialized training on rangeland and pastoral issues. These officials and their counterparts in NGOs and the private sector will greatly benefit from the wealth of knowledge, expertise and skills ILRI has gathered over years. Such training can be tailored based on each country's tool kits such as the Kenyan annex to the county spatial planning guidelines, Ethiopia's woreda participatory land-use planning manuals and Tanzania's joint village land-use planning tools.
- *(ii)* Second rangeland specialists to implement research and offer policy support whenever possible to national government departments and local government structures based on their priorities and needs. This measure would help ILRI stay updated on the state of implementation and monitoring of existing and future projects.
- *(iii)* Facilitate peer-to-peer review, for example, by creating opportunities in IGAD and the East African Community for land-use planners to visit each other and discuss their achievements, challenges and failures. Mechanisms for collaboration already exist between the government in the blocs and ILRI already has a strong presence there.
- *(iv)* **Consider developing capacitie**s of grassroots rangeland management communities on the importance of securing their rangeland resources against encroachment by other users and fragmentation due to both human and external factors such as climate change.
- (v) Sustain the learning pathway as a platform for strengthening the capacities of local institutions and communities and a direct means to scale up and disseminate innovations gained during the implementation of ILRI's research and policy support. Learning and experiences can inform future learning pathways and ensure land-based conflicts between different land users are reduced.

7.1.3 Other

- *(i)* Support governments and CSOs to sustain nationwide informationsharing platforms. In Kenya and Tanzania, ILRI is an active member of the ILC-championed National Engagement Strategy and in Ethiopia, ILC's supported platform is Land for Life. ILRI and partner support for these platforms should be extended and connected with other major networks to reach as many communities as possible.
- (ii) In Kenya, ILRI should offer more technical and policy support and conversation with FCDC counties through the land working group. Through such conversations, ILRI and its partners will continue to set the agenda, continue to evaluate how far processes have progressed, what challenges counties are experiencing and how they can be better addressed through county spatial planning processes. Since 10 FCDC counties are represented by county executive committee members who are heads of departments, decisions made may have had a higher chance of implementation.
- (iii) In Tanzania, conduct research to develop JVLUP village selection criteria or a toolkit to make a selection of functional cluster rangeland areas. Such selections are needed to ensure that the process is cost-effective and successful, by including the right villages. One criterion is sharing livestock production resources across village boundaries, including grazing and water areas. Other aspects like political orientation, existing land-use conflicts, community historical tensions and local level of good governance need to be considered for effective planning and execution of JVLUPs. Also, undertake research and establish other viable models and tools for land-use planning and find new ways in which the process can be scaled up.

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ANNEX 1 RESEARCH INSTRUMENT

To obtain detailed information about the project implementation, analysis and to provide detailed outcome results, the study used the following toolkit designed to guide outcome evaluation. Based on the discussion and consultation with the client and intervention implementing partners, the consultant added follow-up questions to get a deeper understanding of the project outcomes, pitfalls, suggestions and recommendations.

Overall **questions to be asked** all project affiliated partners are:

- What is your knowledge of ILRI's intervention on rangelands in your country? In what ways have you interacted with the intervention/project?
- What project achievements do you recall and why?
- In your opinion, what other factors enabled the realization of these outcomes you have just mentioned?
- What level of outcome have you documented/noticed from ILRI's activities related to land-use planning implementation in your area of work/expertise?
- What are the major factors (mention at least three) supporting the uptake of ILRI's activities related to land-use planning and why?
- What factors (mention at least three) limited the achievements of ILRI's activities related to land-use planning and why?
- As one of the partners of this project, do you appreciate the potential contribution of the land-use planning?
- Are the national or subnational actors making use of materials developed by ILRI's activities related to land-use planning?
- Is the government implementation of the land-use planning frameworks now implemented on the ground?
- Are materials developed by ILRI now used for planning activities?
- Are specific characteristics of the pastoral system being considered in the policy process and implementation on the ground?
- Which key lessons have you learned in the course of your engagement with this project?
- For each lesson mentioned; why do you mention it as a lesson, how did it affect the program?
- For each of the lessons learned, who was affected most by the lesson?
- What recommendations do you have to scale up ILRI's activities related to land-use planning or related interventions in improving rangelands in your country?
- Do you have recommendations for further engagement with ILRI in land-use planning processes? What are they?

ANNEX 2 COMPLIMENTARY Secondary Sources

ILRI BRIEF ON PROJECT

https://cgspace.cgiar.org/bitstream/hnadle/10568/101211/ srmplLRISolutionBrief02.pdf?sequence=1&isAllowed=y

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- NO.3 Village land-use planning in rangelands in Tanzania: good practice and lessons learned. *https://cgspace.cgiar.org/handle/10568/90500*
- NO.7 Improving the implementation of land policy and legislation in pastoral areas of Tanzania: Experiences of joint village land-use agreements and planning. https://cgspace.cgiar.org/handle/10568/79796
- NO.1 Securing pastoral women's land rights in Tanzania. *https://cgspace.cgiar.org/handle/10568/89483*
- Bulletin NO.5, May 2014 *https://cgspsce.cgiar.org/handle/10568/41606*

DOCUMENTATION OF LEARNING ROUTES THAT HAVE VISITED SRMP

Film of the learning Route Making Rangelands More Secure!" *https://www.youtube.com/watch?v=fF0SBXcY&t=14s*

Learning Route Innovative Practices & Tools to Reduce Land Use Conflicts 22-30 September 2017 Report (involving IFAD Nigeria) *http://africa.procasur.org/index.php/our-work/lr-sorted-by-year/item/262/262*

- Learning Route Innovative Practices & Tools to Reduce Land Use Conflicts 22-30 September 2017 Learning Route Diary https://landportal.org/debates/2017/learing-initiative-innovative-practicesand-toos-reduce-land-use-conflicts-between
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- Volume 2: *https://cgspace.cgiar.org/handle/10568/98355*
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BLOGS

- An inclusive multi-stakeholders approach empowers pastoral communities in Tanzania *https://www.landcoalition.org/en/region/africa/blog/inclusivemulti-stakeholders-approach-empowers-pastoral-communities-tanzania*
- Joint village land-use planning secures over 95,000 hectares of grazing lands. https://livestocksystems.ilri.org/2018/11/02/joint-village-land-use-planningsecure-95000-hectares-of-grazing-lands-for-livestock-keepers-in-tanzaniaskiteto-district/
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- Presentation at WB Conference in 2019 by Stephen Nindi: https://www.conftool.com/landandpoverty2019/index. php?page=browseSessions&presentations=show&search=nindi

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ANNEX 3 LIST OF INTERVIEWEES

S/N	Name	Designation/ Institution	Country
1	Kulamo Bullo	Former Chairperson, Land Sector Forum, Frontier Counties Development Council	Kenya
2	Ken Otieno	Director, RECONCILE	Kenya
3	Dr. Herbert Musoga	Director, Land Use Planning Directorate, Kenya National Land Commission	Kenya
4	Husna Mbarak	FAO – Team Lead, Land and Natural Resources	Kenya
5	Michael Gitonga	FAO	Kenya
6	Dr. Stephen Nindi	Former Director General, NLUPC	Tanzania
7	Isaack Luambano	ILRI Consultant in Tanzania	Tanzania
8	Bernard Baha	Tanzania Land Alliance	Tanzania
9	Dr. Asimwe Rwiguza	Director, Rangeland and Feed Development for livestock and fisheries	Tanzania
10	Boniface Shija	Focal Person at the Ministry – ILRI interventions in Tanzania	Tanzania
11	Zakaria Faustin	Director, Tanzania Natural Resource Forum	Tanzania
12	Abraham Akilimali	Programme Coordinator, KINNAPA	Tanzania
13	Dr. Charles Cosmas Mkalawa	National Land Use Planning Commission, Lake Zone Manager	Tanzania
14	Bogale Terefe Abebe	Senior Livestock Resource Development Expert Land Use Case Team Leader, Ministry of Agriculture	Ethiopia
15	Tigistu Gebremeskel	Director, Rural Land Administration & Use Directorate (LAUD), Ministry of Agriculture	Ethiopia
16	Paul Roden	German development agency (GIZ)	Ethiopia



