

Rangeland community exchange conference 2018

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Theme: Examining the interface between community rangeland management practices and governance frameworks in Kenya.

KCB Leadership Centre – Karen, Nairobi

January 18–19, 2018



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Acknowledgement

Rangelands cover about 88% or 500,000km², of Kenya's land and are home to 12.5 million or roughly 30% of the Kenyan population, principally pastoral communities, and are crucially important for extensive livestock production and wildlife conservation. They also provide many important ecosystem services to humanity, including provision of food and fibre, regulation of water supply and sequestration of carbon.

It is also important to note that despite knowing the vital role that rangelands play in sustainable development and human wellbeing, they are faced with serious threats such as climate change, poor resource management, conflicts and degradation among others. The resource management and governance in the rangelands is complex and highly threatened by erosion and changes in traditional resource governance structures. With the coming of new and formal governance frameworks, it is fundamental to understand the synergy between the community practices and governance frameworks with regard to rangelands ecosystems and community. This then necessitated a community-to-community exchange so as to provide a platform for learning and sharing the best practices in range resource management.

The preparation of this congress has taken work of various entities and we would like to acknowledge their efforts. The organization of this congress was guided by the technical input of a cross-organizational committee drawn from the International Livestock Research institute (ILRI), Rangelands Association of Kenya (RAK), South Rift Association of Land Owners (SORALO), and African Conservation Center (ACC)

This conference was undertaken through funding from the project, *Restoration of degraded land for food security and poverty reduction in East Africa and the Sahel: Taking successes in land restoration to scale*. The project is led by the World Agroforestry Centre (ICRAF) and funded by the International Fund for Agricultural Development (IFAD) with support from the European Union. ILRI's work in the project is also supported by the CGIAR Research Program on Livestock. The CGIAR is a global partnership that unites organizations engaged in research for a food-secure future. The CGIAR Research Program on Livestock provides research-based solutions to help smallholder farmers, pastoralists and agropastoralists transition to sustainable, resilient livelihoods and to productive enterprises that will help feed future generations. It aims to increase the productivity of livestock agri-food systems in sustainable ways, making meat, milk and eggs more available and affordable across the developing world. The Program thanks all donors and organizations who globally supported its work through their contributions to the CGIAR system.

It is our hope that the report will be found useful both to the communities in rangelands communities and also to policy makers and governments.

Disclaimer

This document reports on opinions expressed at a conference. These opinions do not necessarily reflect those of the organizers or the funding agencies that supported it.

Foreword

Interest in sustainable land management and restoration of degraded land in Kenya is growing. In 2016, for example, the Government of Kenya agreed to a target of restoring 5.1 million hectares of degraded land by 2030. Given that approximately 80% of the Kenyan land mass is rangeland, the need to ensure the sustainable management of those lands is undeniable. However, whereas pastoralists are often assumed to be the cause of degradation, we are convinced that pastoralists are often excellent stewards of the resources that they rely upon.

Over the past twenty years, pastoralist communities in various corners of the country have carried out diverse land management and rehabilitation initiatives. Sometimes with the support of a government agency or an NGO, sometimes on their own, these communities have been implementing a variety of participatory and community-based approaches to rangeland management. The potential for rangeland management to contribute to the nation's land restoration goals is huge. Success, however, can give rise to new challenges, and it has been seen that promising management practices implemented by pastoralist communities often end up being undermined by the inadequacy of existing governance and management frameworks.

The Rangelands Association of Kenya and the International Livestock Research Institute, recognizing that pastoralist community members have a wealth of knowledge to share on these topics but have few opportunities to share this knowledge, partnered to host the Rangeland Communities Exchange Conference. The conference facilitated community-to-community exchange of knowledge on their rangeland management practices and on the ways in which management and governance frameworks interact with these practices. Our organizations are working together, including through events such as this, to foster a community of practice on community rangeland management.

A key issue that emerged at the conference is that pastoralist communities lack a strong collective voice on matters of policy that affect them. This lack of collective voice is part of what has contributed to the inadequacy of existing policy, legislative and governance frameworks. The conference, however, made a small contribution toward helping pastoralist community leaders to exchange ideas with each other, find common ground, and begin to develop that collective voice. We look forward to watching this seed grow.

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1 Introduction

Founded in 2012, the Rangelands Association of Kenya is a nonprofit making nongovernmental organization that came into place following a unanimous agreement by stakeholders that the future of rangelands and their sustainable development requires combined efforts and redress. The organization is aimed at being a national umbrella body to spearhead sound and sustainable management of rangelands landscapes. It seeks to promote policy and good governance structure as a tool for sustainable management of open rangelands for improved livelihoods of its people. Its mandate is to address and advocate on issues touching on rangelands ecosystems, through provision of a platform for sharing reliable rangelands research and best practices among various rangelands stakeholders.

This year with the partnership of institutions already acknowledged above RAK hosted a rangeland community's' exchange conference that brought together a delegation of rangeland users and stakeholders. They ranged from landowners, range practitioners, representatives of research/academic institution, government representatives, local and international NGO's among others. The event built on the cooperation and coordination of not only the organizers but also other stakeholders with major interest on the rangeland ecosystems and landscapes.

The high-powered delegation spanning across Kenyan rangelands, gathered during the two-day conference at the KCB Leadership centre, Nairobi, Kenya. The conference was broadly guided by the theme "Examining the Interface between Community Rangeland Management Practices and Governance Frameworks in Kenyan Rangelands", with the aim to develop a framework to synergize rangeland management and governance structures in the face overgrowing landscape dynamics.

The fact that nearly 90% of the participants at the conference were land owners and community members, shows the vital interest that the local communities have in sustainable ways of developing rangelands and utilizing their natural resources. This also substantiates the conference as the right platform for sharing amongst various communities making it need-driven and timely.

Bring together landowners, range practitioners, leading experts and government representative, the congress proved an excellent opportunity for networking and sharing the best practices and innovations that have worked in different areas and have the potential of being replicated in other parts of our drylands.

The deliberations in the congress focused on the traditional Basis for Rangeland Planning and Management, space and market in rangeland landscapes, current challenges in rangelands, and the future of rangeland ecosystems. At the end of the conference way forward measures and recommendations for future considerations were brought forth by the participants, fundamentally the

consideration of constituting an action committee for the RAK to spearhead a robust involvement of grassroot organization and pastoralists groups. In addition, a strategic plan and operating road map clearly showing the objectives, goals and activities of the Rangelands Association of Kenya was developed and ready for a progressive implementation.

2 Official opening and context setting



Mr John Kamanga leading the introduction of participants

To start off the congress, the congress participants from various rangeland ecosystems of Kenya introduced themselves and stating their institutions and regions, and this was done to set the mood and help in

icebreaking. The participants included communities from Northern (Wajir, Mandera, Marsabit and Turkana) and southern (Kajiado, Narok) parts of Kenya, research scientists, academicians, policy actors and government representatives from the ministry of livestock and agriculture.

2.1 Welcoming remarks—Mrs. Lucy Waruingi



Mrs. Lucy Waruingi gave an overview of the status of the Kenyan rangelands and various development frameworks put in place to achieve sustainable land use management. She emphasized that as people working or interested in rangelands, these areas are the target areas of development by the government and other stakeholders and should take advantage of frameworks put in place. The target areas of development in the rangeland ecosystems she highlighted

included intensification of agriculture, infrastructure development in the

marginalized regions, improvement on health care facilities and housing. The interventions in the rangelands require space.

Sustainable land uses in the drylands will require envisioning the future of pastoral communities in these ecosystems as many eyes are watching these regions for other economic activities. There are needs for providing empirical and reliable information for future development of the dryland ecosystems for improved and better livelihoods of the communities inhabiting the regions. This requires identifying best practices and various range innovations from the communities inhabiting and scaling up the experiences for better learning and adoption by others. These need to be incorporated in the rangeland strategies for development in Kenya, for example the rangeland restoration strategy.

2.2 Overview of the conference objective and program.



Dr. Lance Robinson making a presentation

Dr. Robinson from ILRI gave a general idea and full purpose of the conference and what will be covered during the various sessions. The main goal was to facilitate communities exchange to communicate practical actions on the ground, on best practices and frameworks to document good practices. The exchanges were on various rangeland management practices being practiced on the ground, the successes and challenges faced in management frameworks in various ecosystems and ways the frameworks can be improved and up

scaled to achieve improved range resource use.

The framework systems were to highlight the traditional and cultural practices for rangeland planning and management, how they have been successful, the challenges experienced over time and solutions to problems faced. The various communities were to discuss their traditional systems for rangeland management, frameworks in place, where they perceive to have faulted, learn from other communities on best practices and how to solve and upscale the best practices.

Dr. Robinson also highlighted on how production for the market and rangeland management interact. Many people are currently producing various products to the markets from rangelands. These products include the livestock species and their products such as milk, meat and skin.

He also underscored on the importance of pastoral mobility on sharing the rangeland resources varied in space and time and beyond the community concept. Researches by ILRI has documented many examples of rangeland management being started through reestablishment of seasonal grazing patterns, as this have positive impact to pastoral production. Mobility still remains

a key strategy in accessing the various range resources in Kenyan rangelands. Good neighboring relationships ensures community mobility to different regions in times of droughts.



2.3 Contextualizing trend in pastoral production

Dr. David Western gave a highlight on general overview and trend on pastoral landscapes for the past 50 years at Amboseli. He narrated the changes he observed through his long term monitoring of Amboseli ecosystem since 1967. In 1967, when he started his

monitoring on livestock and wildlife numbers, biomass production, and management frameworks in place by communities in Amboseli, the land was intact and no any sign of land subdivision and fragmentation. The Maasai by then were free ranging and moved over large landscape to access the range resources. Mobility was a key strategy to pastoral production which enabled pastoral resilience through retreating to better forage areas in drought seasons. These rangeland ecosystems were very productive and supported large pastoral herds which coexisted peacefully with different wildlife species.

The Maasai in Amboseli had their traditional form of resource management through the concept of "*Eramatare*." He highlighted some of the traditional systems which were practiced which included setting aside some areas "olopololi" of dry season grazing, reciprocal relationships to allow accessibility to best grazing areas during drought. The "*eramatare*" concept by then ensured productivity of the rangeland, maintenance of trees, good governance structures which regulated rangeland use and ensured good livestock husbandry by the herders. There were good conflict resolution mechanisms in case of arising issues on resource use through pastoral governance. The community scouts (*ilaleenok*) used to go over the landscape to collect information on forage and water availability and suitability of an area, and they collectively made decisions with elders on when and where to migrate to. Wildlife was respected by the community and was considered a second cow by the Maasai. Other wildlife value perceived included environmental, cultural, indicators, tourism, and medicinal aspects.

Then followed the 1990 period. This period was characterized with establishment of group ranches in the Amboseli ecosystem. There was also the effect of the establishment of the Amboseli national reserve. This led to the breakdown of traditional management systems key among them pastoral mobility used in pastoral resource management. This led to restriction in accessing various resources due to restriction of movement as a result in designating Amboseli

Park and establishment of group ranches. The establishment of group ranches was partly to secure against the whites and other developers from taking pastoral lands. Over this period, tragedy of the commons was experienced, where individuals wanted to maximize the land for livestock production. The tragedy of the commons consequently resulted to over exploitation of range resources and land degradation. The late season grazing areas disappeared over time due to expansion of agriculture in the productive lands. Swamps were taken up for cultivation and irrigation along the Nolturesh water pipeline emerged, which were key grazing areas. This further led to reduction of grazing areas.

In 2000, further subdivision was observed in group ranches with allocation of cultivation areas to individual households in the productive regions. Kimana group ranch experienced exclusive subdivision of its ranch to individual parcels. The Kimana effect of subdividing the ranch further led to fragmentation, where land was partitioned into small plots and sold to outsiders. The small land portions were unable to sustain pastoral livestock any further. This led to pastoral sedentarization. The sedentarization advocated by the government was to enable pastoralists' access schools, health centres and other social amenities. The effect resulted to pastoral marginalization and mobility has since been compromised due to restricted herd mobility. The rangelands began to degrade due to overgrazing as a result of land subdivision and sedentarization. The livestock population in the settled areas went down, and the amount of grass produced per unit of rainfall reduced as a result of overgrazing. The subdivision effect in Amboseli ecosystem led to fragmentation of once intact grazing land, loss of dry season refuges and land productivity.

Dr. Western further underscored the recent intervention in Amboseli ecosystem that could see open space for pastoralists to access range resources and coexist peacefully with wildlife. There was establishment of conservancies outside the protected area which was to see surrounding communities benefiting from hosting the ranging wildlife in the community land. The conservancy concept was an idea to reestablish herd mobility, enhance land productivity, enabling reservation of dry season grazing areas, peaceful coexistence with wildlife and community benefitting from wildlife through tourism and development interventions. This was also to create new governance institutions to regulate accessing the rangeland resources, reduce pastoral resource conflicts and ensure equitable distribution of resources accruing from hosting wildlife in their land.

In addition, in many cases group ranches came together in 2000 and led to establishment of association in various rangeland regions. Some of the initiatives include the Amboseli Ecosystem Trust (AET) in Amboseli, Northern Rangeland Trust (NRT) in northern Kenya, South Rift Association of Land Owners (SORALO) in southern Kenya, and the Maasai Mara Wildlife Conservancy Association (MMWCA) in Mara. The regional associations were to provide new forms of governance to advocate for proper land use planning and restore land productivity. The AET provided a level of management needed in an ecosystem level which cuts across all the group ranches. The Amboseli Ecosystem

Management Plan (AEMP) spanning over 10 years from 2008 to 2018 provided for zonation and reestablishment of areas for settlement, livestock, wildlife, tourism, agriculture and other development.

The Amboseli ecosystem plan went through a legal backing in National Environmental Management Authority (NEMA) under rigorous assessment of the viability of the different land uses in Amboseli ecosystem. The plan integrated all the land uses in the Strategic Environmental Assessment (SEA) approved by NEMA. The plan will undergo another 10-year assessment and enable flexibility of its management under the changing rangeland ecosystem. The plan will reestablishment viability of various land uses, and other strategies like restoring 30% of its production lost. The advocated rangeland division in the AEMP will allocate land to different activities, implement grazing management plan for various regions, and improve pastoral production through establishment of milk cooperatives for women in the regions. Other initiatives like cattleman association will be reestablished, which will be able to negotiate for better livestock prices of cattle market.

As observed by Dr. Western over his long-term monitoring program, the Maasai pastoralists are transitioning from a subsistence to an economy-oriented society. Pastoral system in Kenya is undergoing a dust bowl period similar to the one which happened in America. There is more need to institute systems of governance in the changing ecosystems. There is need to use available information to ensure peaceful transition and allow for sustainable utilization of the range ecosystems. Therefore, the Rangeland Association of Kenya (RAK) will act as an umbrella body to advocate for the rights of pastoralists and bring it as one voice in improving pastoral livelihoods.

3 Traditional basis for rangeland planning and management



3.1 Concept of Traditional Maasai Resource Management

This session was chaired by Mr. Michael Tiampati. First, Mr. John Kamanga illustrated the livestock husbandry framework “*eramatare*” as

used in traditional set up. The traditional system was an all-inclusive

management approach which involved people, livestock, wildlife and the environment, all as one thing. The “*eramatare*” system enabled planning for everything on a daily basis, and management of resources depended on each other and was done jointly. Mobility of herd was a key strategy in accessing varied landscape resources.

The management of natural resources by the Maasai was through traditional institutions which governed and regulated their utilization over time and space. Dialogue was a key strategy and the community would meet as a team and discuss pertinent issues concerning their landscape, and would solve any arising conflicts amicably. The key areas of considerations were issues of security, seasonality, mobility, diversity of stock, water and social networks. Through this resource sharing and joint management as a team ensured sustainable landscapes and survival was achieved.

Kamanga also underscored the importance of strong cultures which supported the pastoralists’ way of living. The cultures allowed the Maasai community to relate with different groups through a brotherhood concept (“*osotua*”). The extended good relation was achieved through clan ties, age sets, age groupings and marking of cows to get an identity within the community. The togetherness enabled building a strong system based on respect where discipline was kept. The respect amongst themselves and for the nature ensured open landscape that allowed for extensive livestock production.

Over time, the rangeland ecosystems have undergone tremendous changes impacting the pastoral way of living. These ecosystems have experienced changes which include expansion of agriculture, reduction of grazing areas, and infrastructure development among others. There is change in mindset of the various stakeholders interested in rangelands, and we are not sure if the devolved system of governance will be supportive to range production. Up to now, ninety percent (90%) of Maasai community are still hanging on livestock production, where selling of productive rangeland has been experienced. Land fragmentation as a result of selling has disconnected livestock ownership with their ancestral communal land negatively impacting on pastoral livelihoods.

Kamanga further emphasized on the importance of understanding the changes in Maasai ecosystems over time, with the need to look for possible solutions. The congress aimed to discuss on ways to manage these changes, to generate information on rangelands and build capacity for these land owners to engage in the changing ecosystems. There is a need for rangeland strategy that will allow the dryland ecosystems to remain productive in many ways as well as to achieve improved livelihoods for the pastoralists.

3.2 Case study: Il'Ngwesi group ranch



Mr. Patrick Leresi gave an overview of Il'Ngwesi group ranch and how it has been implementing traditional and cultural basis for rangeland management and planning. Il'Ngwesi was established in 1996 with the aim of integrating community development, other

land uses and achieving sustainable environmental management. The group ranch had systems in place that regulated the grazing patterns through set up grazing structures and grazing bylaws. Il'Ngwesi Group Ranch management is a combination of traditional livestock keeping and introduced holistic grazing management principles.

There are range management plans that govern utilization under different seasons of wet and dry seasons. During the wet season, grazing at Il'Ngwesi Group Ranch is organized by elders within their 7 villages (Sanga, Leparua, Ngare sigoi, Mukogodo forest, Ethi, NgareNdare, and Chumwi) according to grazing plans. Holistic Management principles are only partly applied. Depending on rainfalls this grazing period lasts for a maximum of 6 months (November to February and April to June). During the dry season once all the pasture /grazing land is eaten up all livestock are bunched together and managed by a few herders and overseers. In dry season, livestock herds are bunched together and big bomas constructed for the big herds, in which animals are kept closely bunched together in enclosures overnight. Bomas are put on bare land according to a plan in order to recover the land (dung accumulation and breaking of the soil by hooves). The boma sites are shifted slightly according to a plan.

The whole process is participatory and this provides the community with ownership of the plan which ensures sustainability. Management of the resources are done jointly through community participatory process which supports decision making on range utilization. The participatory process ensures accountability of the leaders in resource utilization and sharing. Good representation of different clans, elders, youth and women is normally considered in decision making and resource sharing dialogues.

Mr. Leresi further highlighted some of the policies and programs the group ranch could find appropriate for the county government or the national government can implement in the rangeland management strategies for their region. Among them were provision of grass seeds, provision of machinery, identification of livestock through use of microchips, grazing by laws implementation, market access,

veterinary services, water provision, capacity building, negotiated grazing with private land owners etc.

Strengths identified in Il'Ngwesi rangeland utilization by the community varied over time. Key strengths for the holistic range use were there was proper utilization of pastures through controlled grazing which enabled land to recover. The traditional indigenous knowledge of range management is still being used and the traditional conflict resolution mechanisms, are still in place. The system also allows easy vaccination as the livestock are brought together making it easier to improve their breeds. The holistic range management has several challenges in its implementation. The system is expensive, and labour intensive on bringing large livestock herds from different household together. Breeding is also a big challenge through losing good breed traits to bad. In addition, diseases are easily transmitted and high mortality rates in case of outbreaks.

3.3 Case study: Amboseli ecosystem



Dr. Stephen Moiko broadly illustrated the management plan for Mbirikani group ranch under the Amboseli ecosystem plan. The communal ranch is 122,893 hectares (1228.9km²) and predominantly inhabited by Maasai pastoralists with a number embracing cultivation and tourism activities. The total number of registered members as at 2017 is

4600, with 3200 households and a population size of 15,181 during the 2009 population census.

The Mbirikani community deliberated on the importance of maintaining herd mobility for improved pastoral production in the management plan. The grazing plan is to overcome the observed challenges of uncoordinated pasture management, loss of pasture reserves, weak pastoral governance and unclear bylaws. The plan will also help in village and landscape planning of settlements and regulate expansion of expanding cultivation into grazing zones. The system acknowledged the traditional rangeland management system of herd mobility and institutional governance to enable sustainable range utilization and avoid land degradation.

Dr. Moiko underscored the holistic range management approach considering the traditional systems that were used. The approach used in the management plan was at the grass root level and used focus group discussion to identify key resource areas through participatory mapping and their management plans to be put in place. The planning also involved cross learning on best practices from other communities. James Lomunyak, a coordinator from Big Life Foundation on group ranches management, explained the process they undertook to sensitize the community through capacity building on adoption of the grazing management plan in their group ranch. They undertook several trainings on community

leaders, youth and community so as to own the whole plan and easily implement it.

In achieving sustainable land use, the region was partitioned into areas of grazing, cultivation, conservation, tourism, settlement and development. The land use planning designated seven grazing blocks with different grazing patterns and governance structures to regulate their utilization. Binding rules and bylaws have been incorporated in the plan to allow grazing institutions have full mandate of their areas to achieve improved production. The management plan will also identify restoration areas to have grass banks that will provide dry season refuge.

3.4 Case study: Olkiramatian & Shompole group ranch



Olkiramatian and Shompole group ranches are on the southern border of Kenya and form part of a larger circuit of group ranches which have come together to form the South Rift Association of Land Owners (SORALO). Joel

Karori and Ole Sereu gave presentation on how the region has integrated different land uses and the management frameworks being implemented. Shompole group ranch covering an approximate area of 62,000 hectares is predominantly inhabited by Maasai pastoralists who practice extensive livestock production. Shompole passed its constitution in 2011, which has been used to govern natural resource utilization by its community.

Mr. Sereu further gave an overview of the region and the laws and bylaws that govern the range utilization. The landscape has been partitioned into different land uses which include areas of settlement, cultivation, conservation and tourism. Research on monitoring wildlife, livestock and biomass over the area has been done over time to track the changes and trends on different resources to enable landscape planning and adaptive management process. Mr. Sereu even presented elaborate maps on livestock and wildlife trends and their production in the vast region over time. Mobility has been used to access the various resources, and the management plan supports an open space for the pastoral livestock herd.

4 Breakout sessions



The congress participants broke into groups to discuss a number of issues on their rangeland ecosystems among them common cross-cutting issues, challenges, opportunities/best practices and new ideas/innovations.

The cross-cutting issues identified during the breakout sessions included:

- ✓ Increased climatic variability
- ✓ Gender based issues
- ✓ Lack of complete respect for bylaws
- ✓ Resource based conflicts
- ✓ Use of community participatory approach

The common challenges in these ecosystems varied and included:

- ✓ Reduction in grazing land
- ✓ Loss of land productivity
- ✓ Land subdivision and fragmentation
- ✓ Competition over scarce resources
- ✓ Extreme weather events
- ✓ Competing land uses

The identified community best practices and good opportunities to emulate were:

- ✓ Good neighborhood relationships
- ✓ Mapping communal resources to maximize their use
- ✓ Implementation of good management plans
- ✓ Proper land use planning
- ✓ Increasing land productivity through range restoration & better management
- ✓ Improved pastoral production through value chain addition and better breeds
- ✓ Community exchange programs (horizontal learning)

- ✓ Strong cultural practices (Loita)
- ✓ Good resource governance

The new ideas and innovations experienced by the groups participants included:

- ✓ Holistic range management
- ✓ Rangeland restoration and rehabilitation
- ✓ Hay production and forage improvement
- ✓ Community-private/conservancy collaborations to improve livestock production programs
- ✓ Diversification of livelihoods
- ✓ Bunched grazing
- ✓ Ecosystem level management plans
- ✓ Community based natural resource management (CBNRM)
- ✓ Use of legal frameworks in rangeland resource management

5 Space and market: how production for the market and rangeland management interacts



Dr. Stephen Moiko, PRISE Researcher

Dr. Stephen Moiko presented preliminary findings on livestock production and markets as an adaptation under the climatic and land tenure changes. The research questions for his study was how do you compare livestock productions of cross border communities with

different land tenure, and the value chains and land tenure? The study used household survey interviews, focus group discussions (FGD) and value chain interviews to assess the livestock production under varying conditions.

Pastoral production is facing a number of challenges in the changing landscapes. Key issues identified facing pastoralists in the studied regions were climate change, frequent droughts, among others. Rangeland communities are managing the climatic variability in a number of ways. They have changed their rangeland management systems, they practice forage and hay production

About 80% of Kenya's land is rangeland and it support pastoral livelihoods and hundreds of wildlife species many of them endangered. In many areas competition for resources between pastoral or commercial livestock production

systems and wildlife conservation (especially for tourism) has led to Human-Wildlife and Human-Human conflict.

5.1 Multiple productions on rangelands



Dr David Kimiti, making a

Studies in Laikipia have shown that there are seasonal changes in competition and facilitation between domestic and wild grazers. During the dry season, grazers compete for forage and during the wet season, grazing wildlife benefit from

cattle eating the more fibrous, woody grasses, and leaving the protein-rich emerging grasses. Meanwhile, cattle exhibit about 35–40% weight gains when they forage with wildlife in the wet season. Practice has also shown how mobile cattle enclosures (bomas) can be used as targeted rangeland management tools, for restoration or productivity maximization. Cattle production on wildlife areas can be profitable, especially if seasonal variations are monitored closely and managed for.

Cattle can be used as rangeland management tools to rehabilitate or improve the rangeland. Wildlife also benefits from livestock; in addition to range improvement, regularly sprayed cattle act as a parasite sponges.

5.2 Case study: The Lewa-Borana landscape

Both Lewa and Borana started as livestock ranches. Cattle are used as a tool to enhance the quality of the grazing lands. Cattle's grazing reduces the moribund grass biomass, promotes seed dispersal, increases the nutritional value of the grass and decreases the risk of bush fires.

Success

- Community cattle bank insulates from drought losses
- Both cattle and conservation/tourism have either managed to break even or turn a profit
- Preliminary data has shown improvements in rangeland health and wildlife diversity in Lewa

6 Beyond the community—current challenges in rangelands

6.1 Rangeland production in a changing landscape; focusing on mobility



The situation is changing:

- Growing human population
- Climate change
- Land degradation
- Diversified livelihood
- More engagement in market



Community leader from Northern Kenya making a presentation

The emerging challenges from the Northern rangelands communities includes moving with livestock in search of water and pastures. Camels stay for 12 days without water due to water challenges in the region, the area is fertile but due to lack of water

and poor infrastructure agriculture is not intensive. They don't have permanent water points and during wet season when they move away from the water points to enable sustain them during dry season the neighboring communities encroaches and cut down the trees.

In order to counter challenges in pushing for rangelands production the forum agree on the following;

- Sensitization of the effects of land fragmentation
- Intensifying pasture production other than livestock
- Supporting the group ranches herding management and legislation on rangelands management
- Coming up with grazing models and livelihood diversification support
- Embracing grazing management plans/ land use plans/livestock interaction
- Attitudinal support on range ecology/economics for optimal production

- Community capacity solidifying on new ideas and innovation

David Western highlighted the importance of long-term monitoring, communities themselves long measuring the long resources demand grass, livestock number productivity and so on. It gives you an indication that how things are changing as land use changes, culture changes as society change and as the market change as well.

Amboseli over these years have identified degradation of the land as really the biggest threat of rangeland not yet climate change, this is independent of climate change we have lost 30% of productivity of the rangeland.

That means when you have significant climate change those communities and their economic systems will be more valuable because they don't have space, ability and resilience to come back under climate change. The problem in the rangeland is due to a breakdown of those traditional practices which were so effective and not yet in place to provide solutions to the new challenges.

There is a dislocation between the community and wildlife and in the past livestock and wildlife use to move together, once Amboseli was created as National Park we have a place for wildlife and outside a place for people. What this has resulted to is a very heavy grazing outside which lead to less grassland, less wood cover and less bush lands. The establish series of iloopololi to restore grass. They set up enclosures in Amboseli to help in the restoration of land to support young farmers to big farmers.

6.2 Open discussion on rangeland rehabilitation

Different opportunities in rangelands

- Collaborations with other neighbors
- Mapping of rangeland resources and develop plans
- Livestock production / pastoralism improving economics
- Increasing rangelands productivity
- Seasonal grazing plans
- Community participation
- Land use plans (zonation)
- Informed communities (exchanges and knowledge)
- Communal land ownership / tenure
- Strengthen cultural systems
- Improved management
- Reduced deforestation
- Link with county and national government
- Local knowledge base
- Equity
- Ecosystem wide planning

New innovations in rangelands

- Holistic management (bunched grazing)

- Rangeland restoration
- Forage improvement
- Collaboration for livestock marketing
- Diversification of livelihoods
- Reciprocal grazing agreements
- Land use plan
- Women empowerment and involvement
- Ecosystem management plans
- Broader rangeland management (other people resources)
- Community conservation
- Equity and benefit sharing/ business models

Key issues missed in conference discussions according to participants

- Partnerships for investment
- Direct comparison of systems (economics)
- Education and plans at community levels
- Involvement of all pastoral communities like Samburu were missing
- Legal basis
- Payment for ecosystem goods and services
- Address of Invasive species
- County government involvement
- Conservancies in the north
- Infrastructure
- Specific research plans

6.3 Community Land Act

The importance of Community Land Act: There was a presentation on the Community Land Act. Key aspects of its importance include the following:

- Defines terms *community* and *community land*
- Articulate and provides the realization of bundles of rights in community land
- Explain the process of registration and the nature of community land title
- Provides the mechanism of dealing with land injustices
- Provides mechanism for conflict management and resolution
- Entails institutional frameworks for the administration and management of community land
- Community land laws recognizes communities both in its tenure and its governance
- Flexibility
- Gender equality

7 Key messages from participants

In the closing plenary discussion, participants, particularly those representing communities, identified a number of action points and key messages. Many of these related to the need for pastoralist communities to have a common, united voice. This voice is needed for several reasons, including so that pastoralists communities can be able to weigh in on policy issues such as the *Community Land Act*. By mobilizing a united voice, it is hoped that this can become a grassroots social movement.

Key messages identified by participants included the following:

- There is a need to work with grassroots organizations/groups i.e. youth groups, women groups because through this groups the pastoralist communities can get a common voice.
- RAK is advised to move into grassroots institutions in the northern and southern region to earn publicity and that common voice to be able to influence a positive change in the lives of the pastoralist communities. It was suggested that RAK focus on strengthening community voice, not that it should be the voice
- Supporting research and works to talk on inform voice.
- Engaging devolved units of government.
- Support feedback information on research and publication done in particular regions in the rangeland.
- Focus on research base decision to get a better understanding of our environment.

8 Annexes

8.1 Conference program

DAY 1 Thursday 18 th January 2018		
8:30–9:00am	Registration of participants	Jennifer Simpano – SORALO
Session 1:	Official opening and Context setting. Chair: Lucy Waruingi	
9:00– :10am	Welcoming Remarks	Mr. John Kamanga – RAK Coordinator
9:15–9:30am	Overview of the Conference Objectives & program	Dr. Lance Robinson – ILRI
9:30–9:45am	Keynote address: Contextualizing trends in pastoral production systems.	Dr. David Western – Chairman ACC
10:00–10:30am	Morning Tea break and Group Photo	
Session 2: Traditional Basis for Rangeland Planning and Management. Chair: Tiampati Michael.		
10:30–11:00am	The concept traditional Maasai resource management – The Eramatare approach	John Kamanga
11:00–11:45am	Case studies. Olkiramatian Shompole – South Rift Imbirikani – Amboseli Ecosystem Il'Ngwesi Conservancy – Northern Kenya	Karori Joel / Ole Sereu - Olkiramatian Chairman Imbirikani - Daniel Metoe Patrick Leresi – Il'Ngwesi
11:45–12:00pm	Breakout Session discussing: Common Practices, Differences and new ideas in rangelands resource management	Session Chair
12:00–12:30pm	Presentation of Breakout discussions	Session Chair
12:30–1:00pm	Q & A open session	
1:00–2:00pm	Lunch break	
Session 3: - Space and Market: How production for the market and Rangeland management interacts. Chair: Stephen Moiko		
2:10–2:40pm	Presentation on PRISE project work – Pathways to Resilience on Semi-Arid Economies	Stephen Moiko
2:40–3:10pm	Discussion on challenges related to markets in pastoral regions	
3:15–3:45pm	Multiple production on Rangelands – Case of Lewa-Borana Landscape	David Kimiti
3:45–4:00pm	Reporting from breakout sessions	Breakout secretaries
4:00–4:15pm	Q & A open session	Session chair
4:20 pm	Afternoon Tea	
Closure of Day one		
Day 2 Friday 19 th January 2018		
8:30–9:00am	Distillation of Day one	Mr. Johnson Sipitiek -ACC
Session 4: Beyond the Community — Current challenges in rangelands. Chair: John Kamanga		
9:00–9:30am	Rangeland production in a changing landscape. Focusing on mobility	Robinson Lance - ILRI
9:30–10:30am	Maximizing production through range rehabilitation.	World Resource Institute – representative
10:30–10:50am	Tea Break	
11:00–11:30am	Open Discussion on Rangeland rehabilitation	
11:30–12:45pm	Community Land Act and its implication to Livestock production	Peter Ken Otieno I-CAN Land working group
1:00–2:00pm	Lunch	
Session 5	Way Forward & future of rangelands	Chair: John Kamanga
2:00–2:45pm	Plenary: Key Messages from participants	
2:50–3:30pm	Presentation of key messages	
	Closure of the conference	ILRI

