INTERMEDIARY REPORT

Natural protected areas and dynamics of Pastoralist heritage in Marsabit greater ecosystem (Northern Kenya) : Proceedings

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Background:

In many Arid and Semi-Arid Lands, the meaning of heritage is often correlated with natural resources on which the livelihoods of the inhabitants depend. Over the last 20 years, Northern Kenya has seen the implementation of various models for protection of natural resources in order to conserve biodiversity and scarce resources (water, soil, pasture, forest). The greater ecosystem of Marsabit county inclusive of the Chalbi desert, comprise various natural protected areas endowed with immense biological diversity and water which support vital ecosystem services and the existing social and political organizations. At the same time, these conservation practices tend to inhibit some vital functionality of the areas protected such as the socio-cultural values and practices (transhumance road, place for trade, land uses…) of pastoralists' livelihood. For instance, Marsabit forest, which is now fenced, has been used for generations as a dry season grazing area in order to sustain the pastoral activities, which is the notochord of inhabitants. The local communities have to contend with volatile issues of land use changes, land grabbing, multiple stakeholder conflicts, restricted access or/and inaccessibility to resources on which they depend and with tension between different resource users. Consequently, these bio-cultural heritages are prompting questions about the role of communities in the appropriation, conservation, development and enhancing sustainability of their "commons goods" while at the same time sustaining their livelihoods.
Through a proposal for a methodological Workshop on "Natural protected areas and dynamics of Pastoralist heritage", we seek to inventory and describe different models of conservation and management of natural resources existing within the greater Marsabit ecosystem, ranging from the conservation models employed for large conservation sites to those implemented on smaller scale-fenced parcels, and more widely in pastoralists ASALs and wetlands. It raises the question: how does the implementation of models of management of natural resources in interact with the future of pastoralist economies and their socio-cultural heritage, in a context of socio-ecological transition due to a specific history, geopolitical uncertainty, environmental degradation, exacerbated by climate variability/change and limited adaptability of social and economic organization? The study of relationships between land uses and natural protected areas form the entry point for this workshop on the dynamics and adaptation of pastoral ecosystems. Historically, the role of protected areas in maintaining ecological functions of ecosystems is built on an antagonism between the alleged predatory activities of pastoralist societies and conservation practices. In a context where, on one hand, the viability of many ecosystems is based on the adaptability of communities to changes, and where, on the other hand, sustainability of protected areas is related to their ability to retain and provide ecosystem services over the long term, this antagonism form the horizon of current research on the heritage value of biodiversity and natural resource governance. Through the description of the multi socio-ecological functions of protected areas, the workshop will shed light on the multiple interactions and connectivity between protected areas, anthropo-ecosystem and greater ecosystem. This situation prompts for suggestions to address the interfaces between ecosystems and societies and to better integrate thoughts centered on the sustainability of anthropo-ecosystems, rather than the split between "environmental conservation" and "development".
To ensure a good understanding of the research, this proposition is scheduled to start with a 3-day methodological workshop at IFRA-Nairobi on the multi-functionality of protected areas which have already been identified as emblematic of pastoralist heritage during the study on Water and Natural resources management (IFRA-Solidarités- KU, May-August 2011). The purpose of this meeting is to discuss an appropriate methodology, a socio-ecological approach crossing social sciences and environmental sciences, to approach pastoralist heritage. Following the IFRA seminar on governance of natural resources in light

of environmental stress (2011), the « methodological workshop» is an interface between academic research, Kenyans students, managers of heritage and stakeholders of development in East Africa, pastoralists. It aims to focus on Marsabit county and to establish comparisons and activities with research programs such as « la zone atelier Hwange (Zimbabwe) » and some similar situations located in ASALs and wetland (Southern Ethiopia, Isiolo county, Naivasha). It has to involve the inventorying and mapping of environmental resources (water, pasture, forest, soil) and the understanding of uses and socio-ecological functionality of natural protected areas. Governance, being a volatile concern, the workshop intends to investigate and identify stakeholders, their mandates, roles and pre-empt the consequences of their involvement in the development of bio-cultural resources while highlighting existing and potential conflicts in the management and utilization of these resources. At the same time, it aims to involve pastoralists' views in order to incorporate their views in the scientific methodology.

Objectives

Understanding how implementation of models of management of natural resources in Northern Kenya interacts with the future of pastoralist economies and their socio-cultural heritage, in a context of socio-ecological transition due to a specific history, geopolitical uncertainty, environmental degradation, exacerbated by climate variability/change and a limited adaptability of social and economic organization?

Expected scientific outputs

- To identify and inventory bio-cultural resources and identification of stakeholders involved in their uses and management
- Report on the workshop with a design for an appropriate methodology
- To elaborate a methodological document to survey the multi-functionality of natural protected areas and dynamics of pastoralist heritage.
- Elaborate a joint project to submit for coming call for research
- To reinforce the scientific partnership between French institutions for research (IFRA, CNRS, IRD), the Kenyan partners (Kenyatta University, University of Nairobi) and other governmental institutions and Ngo's involved in the protection and management of natural and socio-cultural heritage (Kenya Wildlife Service, NEMA).

List of participants.

Academics.

- Hazard Benoit (Coordinator), Anthropologist, Institut Interdisciplinaire d'Anthropologie du Contemporain (UMR 8177 CNRS EHESS, Paris)
- Professor Kungu James, Dean of Department of environmental sciences, (Kenyatta University, Kenya)
- Thibon Christian, historian, Director of IFRA (French Institute for Research in Africa, Kenya)
- Parita SHAH, Geographer, Department of geography and environment (University of Nairobi, Kenya).
- Patrick Maundu, Ethno-botanist research (Kenya Resource Centre for Indigenous Knowledge (KENRIK, National Museums of Kenya).
- Emmanuel Ndiema, Senior Research Scientists at the Department of Earth Sciences, National Museums of Kenya.
- Dr. Joseph K. Muriithi, Department of environmental Studies and Community Development, (Kenyatta University, Kenya).
- Dr. Washington Ndiiri, Department of archeology, (Kenyatta University, Kenya)
- Dr. Lazarus Ngari, Department of archeology (Kenyatta University, Kenya)
- Mr.Kennedy Gitu, Department of archeology (Kenyatta University, Kenya)

Students

- Lisa Helena Fuchs, IFRA- Nairobi.
- Adongo Christine, Kenyatta University & EHESS.
- Hassan Abdirizak, University of Nairobi.
- Abdia Hassan Baraka – University of Nairobi.
- Nyambane Anne Wansini, Kenyatta University.
- Elizabeth Nyagoha, Kenyatta University.
- Tabitha Mageru, Kenyatta University.

Agencies/governments institutions

- Joseph Edebe, Kenya Wildlife Service, Kenya Wildlife Service (KWS), Marsabit.
- Mamo Boru (National Environment Management Authority (NEMA)
- Simon Karemeri, Marsabit pastoralism community center.
- Emmanuel Ndiema, Archaeologist, National Museums of Kenya.

Pastoralist and representatives of pastoralist organization.

- Deborah Nightingale, Anthropologist, African conservation Center.
- Monica, Pastoralist Development Network of Kenya (PDNK)
- Watt Guyo, Teacher and pastoralist, North Horr.
- Agnes Lunkat, Representative of Masai communities (Soralo) and spearheading the Maasai heritage program
- Lokho Abduba, Marsabit Mothers Union ACK Church
- Joseph Halcano Galgallo, Marsabit environmental conservation group (MECOG)

WORKSHOP PROCEEDINGS.

Introduction to the workshop

The workshop began with an introductory note by **Prof. Christian Thibon**, director of IFRA. He began by narrating his first visit to Marsabit and elaborating the objective of the heritage program of Marsabit whose vision was to build a program with regard the economic and ecological challenges of Marsabit, in consideration of the new road funded by European Union and China. He explained that the responsibility of researchers implied in this program would be/ is to change the analysis from Nairobi-Marsabit but from Marsabit to Marsabit, meaning from Marsabit to the Ethiopian border, which is important because the heritage question seeks analysis and capacity of local population. He reiterated that the outcome of this workshop should be able to:

1. Test the capacity of the concept of greater-ecosystem in order to get a feel of the situation on the ground and to examine bottom up analysis as opposed to top down analysis.
2. To come up with best question in terms of Marsabit-Turkana (change in geopolitical vision).
3. Explore the multidimensional of heritage in this region.

SESSION 1 (7th November 2012)

How to State the problem of interaction between natural protected areas and dynamics of pastoralist heritage?

Benoit hazard, organizer of this workshop briefed the participants on the objectives, participation, organization and expected outcomes of the workshop. He apprised that the discussion of the relationship between Natural protected areas and dynamics of pastoralist heritage in Marsabit County came up in order to build an academic point of view on a project of rehabilitating one natural protected area, the Marsabit National Park; a project launched by AFD and the European Union. The project Focuses on the Marsabit national park, built as an isolated island and that is today a colonial legacy that the Marsabit inhabitants have to contend with. He again elaborated that his past research in this area has indicated that:

a) The trend to preserve biodiversity and wildlife by focusing on "ecological integrity" of an ecosystem is mostly based on a bias that consider that there is no relation between areas that are protected and their environment. As scholars have shown there is a strong relation between one specific natural protected area and different ecosystems inside of the Marsabit greater ecosystems (Watkins & M. Imbumi, 2007; Hazard et al., 2011)[1]. These environmental dynamics have to be taken in account in the definition of conventional protected areas, and conservation policies have to include interaction

[1] In their recommandation for improved conservation of Mont Kulal (UNESCO Biosphere reserve), Watkins & Imbumi wrote : « *Mount Kulal's topography works in combination with regional weather patterns to trap condensation which gives rise to mist forests* ».

between environmental dynamics, public policies and social practices as a tryptic to understand functional integrity of the ecosystem.

b) Beyond the Marsabit National Park case, natural protected areas became for many stakeholders (local government, NGOs, pastoralists association), a means to protect natural resources. Mostly non conventional, many protected areas do not respond to any international or conventional definitions. These policies of spaces sequestration led to a continuum of protected areas (including forests, water and pasture) occurring at different scales (local, national, international) with different status in the Chalbi endorheic basin on which the Marsabit greater ecosystem has been built. At the least, Marsabit County has a dozen protected natural areas following various legal status and models of natural resource management. In the ASALs context where natural resources are scarce and crucial for pastoralists, this situation raises the question**: how does natural protected areas affect pastoralist economies today and in that way, their heritage?** More widely, the increasing numbers of protected areas in East Africa pursue the demarcation of land and the fragmentation of the rangeland describe by Homewood in 1990's[2]. As, it has been recently exemplified through Tarangire national park (Tanzania) where Maasai pastoralists claim rights to settle in corridor areas. Protected areas and conservation practices are today source of conflicts over natural resources that focus on land uses disregarding the meaning of natural heritage.

c) There is limited data on heritage in relation to the ecosystem. From the point of view of natural conservation practices and pastoralists views on heritage, natural and socio-historical heritage appears to be linked to specific natural resources especially water and pasture. But most of the time, pastoralists' views on natural heritage are not considered in creation of conventional protected areas.

These statements brought forth several questions, which organize the methodological workshop:

1. What is the relationship between Hurri hills, Mt. Kulal and Marsabit? These are the 3 important catchments for Marsabit, one (Hurri hills) is already completely deforested yet Marsabit is experiencing tremendous deforestation at present. Mt Kulal being a biosphere reserve has to some extent been effectively conserved: What does the future hold for these resources and their ecological roles? What is the impact on pastoralists?
2. How are cultural heritage and natural heritage defined? How to identify and inventory valuable natural sites/places that makes sense from the point of view of pastoralist heritage?
3. Which factors should be taken in account in the definition of sites linking natural protected areas and pastoralist's heritage? And how to define pastoralist's heritage if we consider dynamics of settlement, sedentarization or dependants of relief food as pastoralists even though they don't have any more livestock? How to take in account dynamics of pastoralisms in the management of protected natural resources.
4. Are emergent "new" protected areas like fenced parcels in Kalacha and North Horr considered heritage? And how do they influence resource access?
5. Is there a comprehensive definition of natural protected areas: What are they are? What are/were the conservation practices of pastoralists? Why are many pastoralists unable to contribute to conservation of their own environment and resources? But is it really that they are unable to contribute or there are factors that hinder them from doing so?

[2] Katherine Homewood, *Development, demarcation and ecological outcomes in Masailand*, Africa 65 (3), 1995.

6. Which are the new management models that encourage participation of the local community (Kenya Wildlife Service, "conservancies", etc.)? How do they work? What is their success rate compared to the top down approaches?
7. What is the role of socio-ecological transition (climate variability and environmental change) in shaping pastoralists activities and livelihoods and their relations to protected areas? Are they able to adapt effectively in recent times to severe events

Introduction of workgroups on how to define natural protected areas?

Natural protected areas?

"A protected area of land and or Sea especially dedicated to the protection and maintenance of biological diversity and of natural and associated cultural resources and managed through other effective means" (IUCN definition)

With reference to the official definition and a short inventory of protected areas located in Marsabit county, the participants organized themselves into three (3) workgroups to discuss how to define natural protected areas and later present results of their discussions to the rest of the participants. Before the discussions there was a debate about whether to include "natural" in the protected areas or just to call the protected areas. Those proposing to delete "natural" from protected areas argued that it is not clear what "natural" means here because most often these areas are maintained and managed by people, maybe there is nothing so natural about them? So cant we just call them protected areas? Those proposing to retain "natural" on the other hand argued that protected areas most often have natural resources in them, perhaps all protected areas do be they wildlife areas, forests, sacred places, thus it is still logical to call them natural protected areas.
The debate was inconclusive in terms of which one was more rational or whether to adopt or drop the "natural" from protected areas.

Work group results

Group 1
This group first listed possible resources, then classified them as natural and intangible. Natural resources included: pasture, water trees, minerals, medicine, sceneries, livestock, fish and soil. Social/cultural structures, council of elders, water, grazing management plans, religion, gender were classified as intangible resources. In defining protected areas, this groups reported that a protected area is a piece of land set aside by community for specific reasons e.g. economic, social (circumcision) cultural and that in the past, elders protected these resources through their own mechanisms. Recently, the government has come in with institutional laws for protection and that some articles in the constitution protect the natural resources. However, communities at the grassroots don't know about these articles for protection and therefore sensitization is necessary.
Resources management has been implemented in different dimensions depending on the timeframe. For instance, during the pre-colonial period, there was community management, which was socially stratified while at independent Kenya, statutory laws dominated resource management, this, however was two-dimensional. From the early 80s involvement of the local communities into resources management was initiated and recently, the new constitution gives additional rights to communities insofar as resource governance is concerned.

One issue identified by this group is how to imply constitutional dispensation into protection: the new constitution gives more power to the communities: their role can promote or endanger the resources. What will the communities do with this power?

Group 2

This group shed light on protected areas through a series of questions:

1. Which areas in the Marsabit County are categorized as protected? Marsabit forest and Mt. Kulal were listed as protected.
2. Which approach is effective in resource management, conservation and governance? The ecosystem approach**,** taking into account all beings including humans to be able to benefit from these resources is more effective in resource governance.
3. What does protection mean? Protection can be looked at in different dimensions either: legislation protection or cultural protection. This is dictated by the resource in question, the reasons for its protection, in whose interest this protection is being implemented and the scale of protection.
4. How should protection occur? Various stakeholders are usually involved in protection of resources these include: government initiated, Non governmental organizations or community driven.
5. What are the rates of success: community driven protection scores higher than top down approach.
6. What is the ultimate goal for protection? Sustainable utilization and sustainability of resources.

Two questions raised by the group were unanswered:

- What is the relation between protected areas and zoning of territorial space? The group did not come up with a clear difference between the two, and it was discussed that perhaps this is one of the issues that should discussed.
- Can management occur without protection? Would it be effective?

Group 3

The uniqueness of a resource, spiritual and/or cultural values it possesses and imminent threats most often forms genesis for protection. Again resources can be protected because of: perception, biodiversity values, livelihood areas, or other inherent value of the resource. What are the mechanisms for protection? Fencing by the government, which mostly represented the top down approach of conservation, was initially dominant. Today there is changing attitude and perception of protection that has changed from top down to bottom up with environmental education playing a significant role in conservation. This has ensured success of conservation models like conservancies. Protection can be initiated and implemented by: the government, non-state actors or the community itself, this might also occur in 3 perspectives: enhance biological perspective, collaborative management approach, pure community based conservation rendering control to the communities only perhaps with technical support from the government or non Governmental organizations (NGOs).

A balance between protected areas/conservation and livelihoods is important to the local communities as this elaborates how the community will benefit from conservation. People tend to be indifferent to conservation when no benefits accrue to them.

One question unanswered by this group is whether scale matters in defining protected areas. For example some resources cover many hectares of land while others are just defined a few m^2, do the then qualify to be protected or to be labelled protected areas? What exactly does protected areas mean?

Comments

- Population dynamics, land use changes like the discovery of oil is anticipated to impact on the dynamics of the areas in the North including the rangelands.
- We should Enlarging the scope from Marsabit hill to cover the lowlands.
- Establish the factors to take in account in defining protected areas

Conclusion

Instead of coming up with our own definition of protected areas from the workgroups, the participants stressed factors to take into consideration in coming up with this definition and in identification of protected areas as well as some characteristics and intricacies of protected areas. An analysis of the different understandings show that protected areas is a means for resources management in which natural, cultural and intangible resources can be more or less recognized. In that way, these different resources will be protected depending on the timeframe. This perspective therefore leads to the following definition: "*a protected area is a piece of land set aside by the community for specific reasons e.g. economic, social (circumcision) cultural significance, and that in the past, elders protected these resources through their own mechanisms*". In that way, they underline that understanding of protected areas require a historical, contextual and situational approach, which reflects where the cursor is placed in the debate on resource governance.

NATURAL HERITAGE AND MULTIFUNCTIONALITIES OF PROTECTED AREAS

Jamison Ervin, *Protected area assessment in Perspective*, Biosciences, vol. 53, n°9 (September, 2003).

« More than 70% of 201 parks across 16 tropical countries are affected by poaching, encroachment, logging, and a host of lesser threats (van Schaik et al. 1997). A survey of 197 national parks in Russia found serious gaps in infra- structure, management planning, and staffing (Tyrlyshkin et al. 2003), while a survey of 110 parks in the KwaZulu-Natal Province of South Africa found major gaps in data collection, park layout and design, field equipment, and research (Goodman 2003a, 2003b). The rate of habitat loss and fragmenta tion in Wolong's Nature Reserve, established in 1975 as one of China's premier "panda parks," has increased to levels sim ilar to or higher than those in areas outside the park, rendering many areas in the park unsuitable as panda habitat (Liu et al. 2001) . »

« *... assessments generally address one or more of three questions: (1) Is the de- sign of the site or system appropriate to the values it seeks to maintain? (2) Are the management systems and processes ad- equate and appropriate for the needs of the site? (3) Is the site or system effective in maintaining biodiversity, abating threats, and achieving other management objectives? These three questions have evolved into three separate strands in protected area assessments: design, management processes, and eco- logical integrity* ».

Despite the high volume of studies, the literature on protected area assessments has, until recently, lacked a unifying theoretical structure (James 2001).

In echo with the presentation of the text *Protected areas in assessments in perspective* (Erwin, 2003), 3 researches on how to define natural heritage and how to assess conservation projects were presented in relation with the case of Mt Kulal biosphere reserve. The session was organized with the presentation of research undertaken on conservation of biodiversity (forest, water) of Mont Kulal (biosphere reserve, Unesco - MAB program) to state the result of an ecosystemic approach on natural heritage in the Marsabit greater ecosystem. This statement shows both the ecological, economical and social functionalities of the reserve and has been completed with the new trends between research and conservation showing the

involvement of local communities in conservation practices. In the same way, two presentations added new questions to be addressed in protected areas assessment.

Presentations

- *Mt Kulal Biosphere reserve: Conservation and trends* by **Patrick Maundu,** National Museum of Kenya.
- A Masters proposal entitled: *Total economic valuation of Mt Kulal and its environs to the pastoralist community.* Was presented by **Hassan Abdiraz,** a master student of the University of Nairobi.
- Another masters proposal: *Characterization, utilization and restoration of Maikona Oasis Ecosystem* by **Abdia Hassan Baraka** also a student of the University of Nairobi.

The two students presented their proposed work with a view of receiving technical input from the experts in this field with the aim to enhance their research capacity and to develop appropriate methodology for their proposed researches in order to undertake high quality research. Further to discussions of these two papers, the students were advised accordingly.

SESSION 2 (8th November 2012)

HOW TO IDENTIFY VALUABLE NATURAL PLACE TAKING INTO ACCOUNT DYNAMICS OF PASTORALIST HERITAGE.

A. Archaeological past of Natural protected areas.

Presentations

1. *Archaeology, mobility and geographical methodologies* by **Kennedy Gitu. (**Available as power point presentation).

Comments

- Climate change and archaeological findings in the past: Although extreme temperatures and periods of drought alternated with low temperatures and wet periods (cyclic) in the past, and climatic change is not a new phenomenon, today the difference is that the rate at which this is happening is faster than in the past: shortening periods of the cycles. In the past people practised Mobility, there was plenty of land to move into, but today, with population increases and demand for resources, the situation is worse. The cycle has been disrupted as a result of anthropogenic activities and increases concentration of carbon.
- The presentation largely dwelt on domestication of cattle in the east African region. Since other animals such as camels and donkeys, goats and sheep are reared in ASALs, participants asked for information regarding their domestication. Archaeological evidence has concentrated on cattle domestication, however, domestication for goats and donkeys appeared earlier than camels, which come much later.
- History and resource use and access problems: looking at previous work, and historical events, resource access problems such as that experienced in Naivasha have always appeared and disappeared as water levels recede drastically, sometimes even drying up then later it is replenished and the Lake fills up again. It is a cycle that comes and goes. Should the flower farms not be penalised for abstracting more water and polluting it as the

cause for a drying lake because even in the past without the farms this has been happening. Is it normal and it is normal?

2. *Pastoral land use patterns: perspectives from in and around Sibiloi National park* by **Emmanuel Ndiema** (Available as power-point presentation).

This presentation concluded that in designing conservation policies, no model fits them all and that it is important to take into account socio- ecological variabilities. It is also important to consider factors that influence mobility.

Comments

- Different concepts, perceptions, and dimensions exist on the notion of protected areas: even tombs and graveyards are protected areas so are they natural protected areas.
- Who decides archaeologically important areas? The government? The community? For example wordai sites exist for the Gabra but are not important archaeological sites or are they? Yes the National Museums of Kenya (NMK) are aware of these sites but no substantial research has been done here, research may be put in place in future, but it is not that NMK or the government disregards these sites that are culturally important to the community.
- The Gabbra well now uses the wordai and this may present potential for future research for a project as it portrays the meaning of heritage for local communities.
- Water transport evidence is new to East Africa: further research is required in this area to give a bearing to water management today.

B. Components of socio-ecological transition.

3. *The role of forest protected areas in adaptation of pastoral communities in climate change in Northern Keny*a by **James Kungu: (**available as Power point presentation).

This presentation introduced the concept of socio-fences as opposed to physical fences and that perhaps it is a more effective means of protection compares to the physical fences. Socio-fences enhance conservation and participation of the local community as it encourages environmental education and discourages imposition on the local community.

Comments.

- How do communities use protected areas to palliate climate change impacts?
- Ranking of natural resources by the pastoral communities should be considered in protecting areas, what is most important for them, what is least important?
- Following this presentation, protected areas are defined by socio-technical choices in which "communities" are more or less involved. In that way, models to manage protected areas are embedded in political choices.
- The missing link: place of heritage of communities in protected areas.

4. *Natural protected areas and the dynamics of pastoralists heritage : water among inhabitants of Marsabit county (Northern Kenya)* by **Benoit Hazard.**

This presentation discusses the heritagisation of natural resources and describes a continuum of protected areas models, ranging from biosphere reserves recognized by UNESCO (Marsabit, Mont Kulal, Ndoto), to parcels fenced for the purpose of protection, conservation and ecological intensification (water, vegetation cover) through participatory models such as conservancies that involve "communities" in the management of natural resources. Through

the case of two protected areas— the Marsabit national reserve and a spring located in Kalacha— which have been central in the pastoral mobility of the Chalbi desert, the presentation explores how the pastoralist heritage tries to adapt to the implementation of new protected areas. It describes the coexistence between « traditional » and news models of water resource management as the difficulties for sedentarized pastoraslits to claim ownership over natural resources. Instead of preserving natural resources by the way of heritage, it suggests that the future of pastoral societies needs to shift toward functional integrity paradigm.

5. *Traditional forms of resource management in relation to the pastoralists: the case of Marsabit experiences* by **Mamo boru** (available as power point presentation)

This presentation highlighted why lack of tangible economic benefits of a resource can lead to massive degradation as in the case of Marsabit forest, whose area has declined from 15000 Ha to 11000 Ha. This is rapidly leading to the extinction of *Olea africana* from the forest.

Pastoralists view on protected areas.

This session was dedicated to pastoralists from Marsabit and Naivasha to share their views and contribute to the subject of discussion from their own perspective. There were several presentations and talks as regards conservation, protected areas and the role and perception of pastoralists of the same.

"The changing role of women in conservation" by Agnes Lunkat, Masaï

This presentation enlightened about engendered conservation. Both women and men had distinct roles in conservation and protection that women have taken a greater role in conservation due to the realization that all chores were left to them, and that if resources are depleted, they (women) will bear the greatest brunt: to fetch water, look for pasture and walk longer distances to access the resources. Women were/are reporters to men in issues of conservation e.g deforestation. The men then take the necessary measures to stop degradation. Traditional forms of resource management and conservation existed; some still do and are effective in conserving resources. For example Olopololi (grass bank) was fenced until the grass was needed governed by traditional laws. However, these women still predict challenges that might occur as a result of creation of "new" protected areas (areas protected by non traditional mechanisms in exclusion of the local communities): inaccessibility to medicinal plants, erosion of culture, sacred sites might disappear.

Abduba Lokho, Marsabit Mother's Union ACK Churck

This presentation did not have a specific title, but the theme revolved around the main theme for discussion, that is, resources, resource use, protected areas and the place of communities. The speaker reiterated that protection of resources is important for their sustainability, for example to curb problems of contamination of water sources, enhance hygiene, encourage propagation and growth of indigenous species. Most often springs and oases in ASALs are considered as protected areas by the communities that use them; this is not only because of their ecological function but their significance to livelihood sustenance. An example is the Horri guda spring in North horr.

The communities are quickly taking initiatives to conserve their resources when included in such programs unlike when it is imposed on them. Some conservation measures adopted in some parts of the ASALs to conserve available palm and Acacia trees is the use of stones to fence the animal seclusions instead of trees/branches. This talk also illuminated the role and importance of environmental education in conservation.
Changing perceptions and livelihood options affect resources. Sedenterization, initially for destitute people: who came in search of food-relief, services and water, is sometimes blamed for resources over use and degradation as more pastoralists are pushed out of the nomadic lifestyle which ensured access to resource in large areas to sedentarization which means accessing and using resources by an increased population in a smaller area.
ASAL communities are good at adapting to the situation resources scarcity and most often look for alternatives to resources they cannot access. For example, when the Marsabit forest was closed, the community organized themselves in groups and targeted the lowlands, harvesting massive quantities of wood. However, this raises the question of the impact of such activity on the lowlands biodiversity. Adoption of alternative energy e.g solar jikos has been helpful in energy conservation.
All in all, the community must be involved in all decisions pertaining to protection and protected areas.

Marsabit Environmental Conservation group, Joseph Halkano

This presentation focussed on the Mount Marsabit rescue project aimed at reviving the forest. This project is exploring the possibility of:
Providing water outside the boundaries of the forest in order to curb the problem of encroachment and degradation by livestock inside the forest.
Protecting wells from elephants by placing logs on the well.
Promoting energy conservation: e.g use of improved jikos technology to reduce quantity of wood used for cooking and heating.
Enhancing education and awareness: community to be able to understand the importance of water conservation, protected areas and their role in the ecosystem and the implication this has on livelihoods.
Encourage restoration activities such as afforestation, reforestation.
This presentation stresses that; ideas for protection should come from the community. They should be able to identify the need for protection and understand the consequences of non-protection. Perception has led to some forests being cleared away/ for instance in Badhahuri-(hurri hills) initially referred to as "a place of mist", where the mis-perception that if they clear the forest they would get lush grass for pasture led to deforestation of the entire forest.
Challenges to conservation efforts were identified as:
Inappropriate methodology or approach: the method of involvement most often occurs when NGOs or government come with their own plans for the community to implement, but the community is never involved from the onset of the projects.
Limited alternative livelihoods aside from pastoralism. Maybe diversification of incomes will aid conservation efforts.
Political goodwill is lacking in protection. Conflicting ideologies, mandates, duplication of efforts and personal differences often manifesting in conservation matters.

Differences in Horri guda before and after protection by Wata Guyo, Gabbra Pastoralist, Teacher (Malabot):

Through this presentation, it was evident that protection, besides most often limiting access to resources, they can be useful in rehabilitation and enhancing sustainability of resources for the community depending on them. Horri guda is a fenced fresh water spring that supplies North horr town both for domestic use and watering livestock both from north horr and environs.
Horri guda situation before protection
As a result of growth of North horr centre and sedentarization, pasture was overgrazed, the spring polluted by dumping of dung and blockage of the source.
The vegetation in the spring disappeared due to all these problems causing water shortage in this area.
These prompted protection by Food for the Hungry International (FHI) in consultation with the community.
After protection
There was limited access to animals could not access the source but had troughs that delivered water outside the source.
Because of reduced pollution, vegetation regenerated, water started flowing again.
The community was left to manage the spring.
So protection encouraged regeneration and increased animal health
The disadvantage of this protection is that it comes at a cost, sometimes too costly for the local community households to afford. Unlike the past (before protection) when water was free, water is now sold to the community when it is should be a common good available to everyone.
Questions
If Horri guda almost disappeared as a result of unsustainable use and pollution in the hands of the local community, is the community really able to manage their resources effectively without external intervention? Why were they unable to put their own mechanisms to ensure sustainability of this important water source?

Pastoralist views on protection of water sources and resources. By Eva Darare

A protection area is an idea, which is supported by the pastoralist community if done in an inclusive and organized manner. The main purpose is to: protect the sources from contamination by animal waste, to prevent use of water by the wild animals directly from the sources. Sometimes the wild animals such as hyena and fox are infected with rabies and facilitate the growth of indigenous species, which have long diminished.

"In an area where the communities were involved from the initial start up of the project, I have seen success with positive impact". This is a case of Hori Guda of North horr. On the other hand if communities are not involved in the planning process, the project then is viewed as property of the funders and not owned by the community as in the case of Gamura spring of Maikona. Livelihoods of thae communities should be taken care of before and when a decision for protection is made. One of the reasons for this is that some communities are attached to some sites e.g Rendille of Kargi would not accept Korole spring water to be protected since they have a strong traditional belief that a disaster might occur if this is done.

Capacity building, sensitization and planning with the communities should the key components for protection.

10. *Models of management of natural resources through natural protected areas. And Communities in the management of protected areas: statement and problem* by **Joseph Edebe (**available as Powerpoint presentation**).**

This presentation elaborated the involvement of KWS in protected areas, their mandates, activities as well as challenges in managing protected areas. Several models of resources and protected areas management were also discussed while highlighting the role of communities and collaborative activities of KWS and communities around these protected areas.

SESSION 3 (9th November 2012).

Dynamics of pastoral heritage: comparison between drylands and wetlands
Presentations.

11. *Conflicts: dynamics of pastoralist heritage comparison between the drylands and wetlands* **by Parita Shah. (**Available as power-point presentation)

The socio-economic differences and similarities, challenges, livelihoods and lifestyles of communities living in these areas, conflict as well as adaptation to factors such as climatic stress and resources inaccessibility were discussed in this presentation.

12. *Mount Kenya and dynamics of pastoralist heritage***, Joseph K. Muriithi (to provide paper).**

This paper presented pastoralist heritage in relation with Mt Kenya. It showed how natural heritage is connected with coping mechanisms, which most often calls for movement to specific natural place. For pastoralists, the Ewaso River and the mountain are important sources to pastoralist living in the dry plain. This place provides the solution to the adversities caused by droughts. In case of severe drought, the mountain becomes an immediate and important sanctuary to save their livelihood and their heritage. The paper underlined the link between natural resource sector reforms and the demise of pastoralist heritage during drought

13. *Vegetation, wildlife and domestic stock: a perspective from Sibiloi National park and surrounding areas, Northern Kenya* **by Jack Harris.** (Available as power-point presentation).

This paper discussed the complex interconnectedness of vegetation, wildlife, and domestic stock in and adjacent to Sibiloi National Park. Of interest was understanding, monitoring, and providing insight for the preservation and assistance of the communities (human and ecological) in this region. Possible causative factors for ecological and environmental decline in the region was discussed; in particular changes in available water for plants and animal populations. This paper also detailed the ongoing monitoring and assessment studies that are being conducted and .the importance of a long-range historical view and the contributions that understanding the history of place and process can make.

Workgroups discussion

Workgroups were formed again to discuss the points that came out during the workshop, which included, the questions that had been asked at the beginning of the workshop concerning protected areas and management systems. Also, the groups had the task to identify and summarize specific methodologies for both traditional forms of governance, state governance and any other type of governance.

Work group results

Group 1:
Resources are most often categorized as natural and cultural, these include water, pasture, forest, land, and pasture, council of elders and herding. These are important for sustenance of pastoral livelihoods.
Management practices

- In traditional management, there are formulated schedules and rules for access to resources as in the case of the Abaherega among the Gabra, who is responsible for allocation of water.
- Communal ownership of resources enabled for better management and conservation of resources.
- Each member or group within the community had specific roles and responsibilities with regard to access, use and management of resources. For example women, children..

Similarities in pastoralist and state governance

- Both have specific rules and regulations
- Penalties exist for offenders.
- They both have well formulated and management strategies

Differences

- Implementation: pastoral governance is more consultative with and within the community.
- State management is more of prescriptions to remedy certain situations, which the community is expected to comply with (we know, you don't know, so we tell you).
- Pastoral governance is more oral while state governance exists as documented policies, rules and regulations.

Group 2
This group presented how pastoralists conceptualize natural heritage, and the specific elements that symbolize heritage for them. These included: Water, livestock, wildlife, culture and minerals.

Resources were/are still protected traditionally by various means. For example:

- Vegetation such as Acacia is protected by oaths. Transhumance was/is a method of conservation.
- Livestock choice of type of animals to keep is one adaptation strategy used by the pastoralists to adapt to severe conditions in the ASALs.
- Water sources such as wells are protected using stones or sticks to prevent contamination and each user has responsibility to clean the well after watering livestock.
- Totemism and symbolism ensured protection of certain wildlife, e.g killing of hyenas or certain snakes.

- Management of resources are left to the council of elders and ownership of resources is communal.

Issues

- The government is being forceful in prescribing conservation methods, implementing policies on resource protection without adequately consulting local communities and anticipating impacts to them.
- Continuous land fragmentation and subdivision is increasingly frustrating resource governance efforts and heritage conservation.

Group 3

This group defined an appropriate resource/heritage management strategy as system that enables for community involvement and one, which can be to implemented with different communities with regard to resource, conservation, heritage and conservation.

The problem is that communities don't see themselves as being in separation of resources e.g wildlife while new methods see the two as different. For instance, the Maasai don't see themselves as different from wildlife while prescribed conservation techniques treats the two separately.

Methods for conservation: ceremonies, sacred areas, medicinal areas, livestock, utilizing different spaces for different times, and different species for different uses. Standards for actions e.g warriors did not just gout to kill lions anyhow, they had certain standards to conform with. Standards of how to exploit resources. Education, a daily practice, sharing or resources and learning from other cultures.

Categorization and view of resources as private or communal influence allocation of resources.

Types of conservation

Colonial/government: not multi dimensional and is notorious for separating people at the same time as they include them. Conservation is often the single goal for government methods e.g tourist areas, forest, wildlife etc

What are the practices of indigenous people, what are they doing now, how do they do it, how can they work together with the government, how can cultural aspirations be given a voice.

Group 4

This group ascribed that conflict in protected areas arise due to existence of multiple stakeholders in these protected areas and who often have conflicting interests in them. These include different government agencies as stakeholders of the same resource while having conflicting policies, management strategies and mandates. These most often do not look at the interests of the pastoralist or seek to involve him in management, he (the pastoralist) is expected to embrace and conform to the prescribed policies for heritage/resource governance.

Kenya has experienced changes in management systems and formats from the pre-colonial, colonial, postcolonial periods to the present.

An all inclusive management techniques would be most appropriate in resource governance and enhancing heritage.

Conclusion and way forward

The diversity (pastoralist, researchers, representatives of Ngo's, students) of participants in this workshop and their involvement in discussion on specific topics elicited better knowledge and understanding of the various protected areas existing in Northern Kenya and the issues surrounding the definition, creation, implementation, community involvement and consequences of protected areas. The discussions also enabled for the extrapolation of the question of relationship between pastoralist heritage and natural protected areas to other drylands and wetlands, underlying that natural places of pastoralists heritage have specific temporality linked to their environment. One important debate during the workshop was on "models of management of natural" resources in Northern Kenya » to question the meaning of « conservation practices » which is now the key to reinforce existing scientific partnership.

The participants agreed to pursue scientific exchange and collaboration.

To pursue the methodological work undertaken during the workshop, participants agreed to:

- Complete the inventory of protected areas located in Marsabit County taking into account that this notion overpasses the conventional definition of a protected area and can refer to pastoralist conservation practices as well.
- Elaborate an intermediary report that will be shared and enriched by participants before the writing of the final report.
- Elaborate a methodological document to survey the multi-functionality of natural protected areas and dynamics of pastoralist heritage.
- Elaborate a joint project on pastoralists heritage to submit for coming call for research (ANR, Parego call).