



REAL ITN
Resilience in East African
Landscapes



**AFRICAN
CONSERVATION
CENTRE**

Ecosystem Dynamics, Conservation Practices and Land Use in East Africa

REAL ITN Workshop, 30 March 2016

British Institute in Eastern Africa (BIEA), Laikipia Road, Kileleshwa, Nairobi

The Workshop is organized by the **REAL** (Resilience in East African Landscapes) **ITN**, in collaboration with **ACC** (African Conservation Centre).

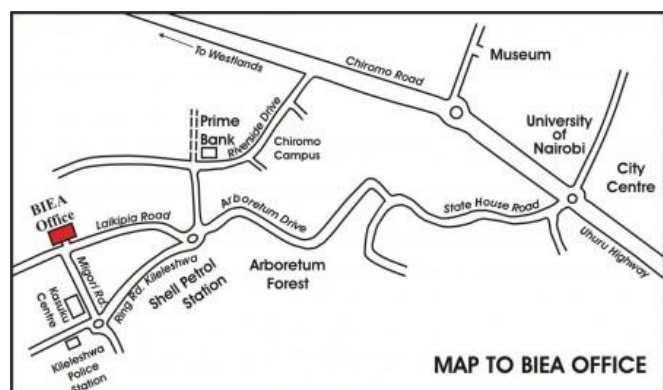
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About the REAL project: REAL is a Marie Curie Actions Innovative Training Network (ITN), funded by the European Commission under the Seventh Framework Programme. The aim of REAL is to provide a longer-term historical perspective on human-environment interactions to enable future long-term sustainable use of East Africa's fragile environment and resources. Together we focus on the temporal, spatial, and social dynamics of human-landscape interactions in East Africa over the last millennium. By bringing together ecologists, archaeologists, anthropologists, geographers, historians and agronomists, the ITN provides cross-disciplinary training to a new generation of researchers, enabling them to interpret data relating to past and present socio-cultural and ecological dynamics from across the environmental and social sciences and the humanities. The REAL project involves seven full participant research centers in Europe and nine international associate partners.

For more information please visit our homepage: www.real-project.eu





Ecosystem Dynamics, Conservation Practices and Land Use in East Africa

Programme

Wednesday, 30 March 2016

09:00 – 09:15

Registration and Coffee

09:15 – 09:30

Welcome and Introduction

09:30 – 11:00

Part I

Fergus Sinclair, World Agroforestry Centre (ICRAF)

Squaring the conservation circle through a livelihood lens: How structured stakeholder engagement can increase the diversity and inclusiveness of agroforestry options

George Njoroge, Stockholm Environment Institute Africa

The promise and pitfalls of REDD as a conservation strategy: Lessons from East Africa

David Williamson, Institut de Recherche pour le Développement (IRD)

Tackling water resilience in East-African landscapes: Scales and threshold issues

11:00 – 13:00

Part II

Belinda Low Mackey, Grevy's Zebra Trust

Community-based approaches to Grevy's Zebra conservation in Northern Kenya

Lucy Warungi & Victor Mose, African Conservation Centre

Ecosystem dynamics and 30-year landuse/landcover changes in the Kenya-Tanzania borderlands

Fumi Mizutani Wells, The Lolldaiga Institute

Long-term survival of joint livestock-wildlife land use: a case study in Laikipia, Kenya

Samson Lenjirr, South Rift Valley Association of Land Owners

Engaging communities in conservation to win space for wildlife

13:00 – 14:00

Lunch

14:00 – 16:00

Part III

Johnson Sipitiek, African Conservation Centre (ACC)

Sustainable development in conservation areas: case study of Mt Suswa, volcano, an aspiring African Geopark

Katherine Snyder, International Centre for Tropical Agriculture (CIAT)

Landscapes and livelihoods in African contexts

Theresa Mbatia, Université Bordeaux Montaigne and University of Nairobi

An analysis of conservation interventions in the preservation of Nairobi National Park ecosystem. Viabilities, futures and strategies of conserving an urban protected area

Susan Chomba, freelance researcher

The place of history in unraveling contemporary conservation dilemmas in contested landscapes

16:00 – 16:30

Coffee Break

16:30 – 17:30

Final Discussion



Susan Chomba, Independent Researcher

The place of history in unraveling contemporary conservation dilemmas in contested landscapes

Despite concerted global efforts and incentives to conserve biodiversity rich yet fragile ecosystems in Africa, various threats to them, and the people who depend upon them persist. Here, I problematize conservation through an historical analysis of landscapes that form the Kasigau corridor REDD+ project and Ngare Ndare forest and wildlife conservancies in South Eastern and North-central Kenya respectively. From this, I draw out three main factors that need to be addressed if conservation goals are to be met: (i) the framing of the conservation problem; (ii) contested and inequitable land tenure and (iii) systematic exclusion of resource users from decision making processes.

Samson Lenjirr, South Rift Valley Association of Land Owners (SORALO)

Engaging communities in conservation to win space for wildlife

Belinda Low Mackey, Grevy's Zebra Trust

Community-based approaches to Grevy's Zebra conservation in Northern Kenya

The Grevy's Zebra Trust (GZI) conserves the endangered Grevy's zebra and its fragile habitat in partnership with communities. We are a grassroots and gender conscious organization with over 95% of the team employed from communities living in Grevy's zebra range. The most pressing threat to the survival of Grevy's zebra and the future of pastoral livelihoods is loss of habitat as a result of overgrazing which has been exacerbated by a breakdown in cultural integrity. Community members already have an intimate knowledge of local ecology; we build upon this foundation by exploring ecosystem processes such as the water cycle and how grazing management affects ecosystem health so that communities can plan their grazing to facilitate land regeneration. In addition, we are also starting a project to photographically document environmental and social change within communities. Our Grevy's Zebra Warrior team is equipped with GPS cameras to record Grevy's zebra and other wildlife sightings around Laisamis, and through their own initiative they started recording their perspective on what is happening within the landscape. In the face of major infrastructure developments planned for northern Kenya, it is critical to record this change to understand its impact on land use and traditional human interaction with the environment, which can inform future adaption strategies.

Theresa Mbatia, Université Bordeaux Montaigne and University of Nairobi

An analysis of conservation interventions in the preservation of Nairobi National Park ecosystem. Viabilities, futures and strategies of conserving an urban protected area

Nairobi National Park is believed to be the only wildlife reserve in the world that is located within the confines of a capital city. Because of this, the park is considered to be not just an important ecological feature, but also a significant national and international status symbol, with substantial environmental, economic, social and cultural benefits. Measuring only 117 square kilometres, the park is too small to sustain the rather large population of African savannah wildlife within it. Therefore, the parks viability depends on the Kitengeala dispersal areas that is

Masaai community land south of the park. Most of the wild herbivores like zebras, wildebeest, buffaloes, impala, kudus and other major antelopes can be found grazing and browsing outside the park in the community land especially during and after the rainy season. Unfortunately, in the recent 20 years or so, the Kitengela dispersal areas have increasingly been semi-urbanised, through sub-division, fencing and selling of land for peri-urban settlements, factories and flower farms. As the city expands outside, the community lands have become very popular for people wishing to live in sub-urban areas. The increasing human settlements have affected the pasturelands available for wildlife and Maasai livestock, as well as blocked the paths for the migratory animals like the wildebeest, which go to the south towards the Serengeti every year. The viability of the parks ecosystem is worsened more by lack of territorial planning policies for both human settlements and wildlife habitats outside protected areas. As it is now, the future seems very bleak for the future of NNP. In a bid to halt the subdivision, sale and fencing of lands that act as wildlife habitats outside the park, international, regional and local wildlife conservation NGO's have come up with several strategies intervening to preserve the animal habitats in community land. However, despite the many interventions, resources and time spent, most or all of this schemes have not been successful. Based on empirical research with land owners in the dispersal areas, this paper evaluates the various habitat conservation interventions implemented and explains why they have been unsuccessful despite their good intentions.

Fumi Mizutani Wells, The Lolldaiga Institute

Long-term survival of joint livestock-wildlife land use: a case study in Laikipia, Kenya

Since the World Summit in 1992, much attention has been paid to the mitigation of human-wildlife conflicts. Large volumes of empirical detailed studies have emerged to investigate how rural societies coexist with wildlife by sharing space but partitioning time of use in drylands of Africa. These communities ensure their long-term survival by adapting their social institution and their biosphere. However, few have documented long-term survival of joint livestock-wildlife land use. It is essential to understand historical social and biological sphere of each community. This presentation aims these issues by examining longitudinal trends in the biomass of wildlife populations and domestic stock on a Kenyan working livestock ranch which shares breeding, marketing, grazing, risk of predation and disease with the surrounding communities. Livestock herd performance was analysed using a simulation model Livestock Production Efficiency Calculator. By using real and nominal prices, it was found that at the introduction of free trade in 1993 livestock performance in real terms became one tenth of what they were at the beginning of the Structural Adjustment period led by the World Bank in the 1980s. A similar effect could be seen among the adjacent rural societies as terms of trade between crops and livestock deteriorated. In order to compensate this loss of livelihood sources, land use became more wildlife conservation oriented as the income from conservation strategies became a more significant source of livelihood. The study also concluded that flexible intervention such as eliminating predators killing livestock habitually might be necessary to ensure overall herd performance, depending on the quality and longevity of breeding stock. It was also found that adaptability, flexibility of land management and sustainability of livestock breeding system were found to be most important in the management of joint livestock-wildlife land use.

George Njoroge, Stockholm Environment Institute Africa

The promise and pitfalls of REDD as a conservation strategy: Lessons from East Africa

Fergus Sinclair, World Agroforestry Centre (ICRAF)

Squaring the conservation circle through a livelihood lens: how structured stakeholder engagement can Increase the diversity and inclusiveness of agroforestry options

There is a stark contrast between the diversity of both people's needs and the trees that farmers retain in agricultural landscapes and the promotion of a few exotic species in many agroforestry development initiatives, even those in the vicinity of protected areas. Here, we look at how structured stakeholder engagement that blends local knowledge with scientific information can result in the identification of more diverse and inclusive agroforestry practices that are appropriate for a range of different types of people and the contexts in which they live. Using examples from DRC, Ethiopia and Malawi we explore how different options suit different contexts and how we can spend the development dollar more effectively by embedding research within development initiatives.

Johnson Sipitiek, African Conservation Centre

Sustainable development in conservation areas: case study of Mt Suswa , volcano, an aspiring African Geopark

Mt Suswa is a large dormant Holocene trachyte-phonolite shield volcano, rising to a height of 2356m from the floor of the Eastern Rift Valley, 60km due west of Nairobi, Kenya. It exhibits impressive nested calderas, together with one of the world's most extensive lava tube cave systems, and is currently the subject of work to build an application to join the Global Geopark Network (GGN). Mt Suswa was recognised as a possible candidate Geopark because in addition to its outstanding geological resources, it admirably meets the criteria for "joint proposals submitted by public authorities, local communities and private interests acting together, which demonstrate the best practices with respect to Earth heritage conservation and its integration into sustainable development strategies".

The land of the volcano is owned by the Ilkeekonyokie Maasai and is home to a Maasai pastoral community numbering approximately 1000 landowning households, 100 of these living within the larger caldera. The community has long held an aspiration to introduce sustainable tourism to the mountain as a means of enhancing the living standards of the traditional subsistence pastoralists. An initial study and proposal for tourism development was submitted to the Kenya Wildlife Service in 2003, but this was not acted upon by the official body, and it was only in 2006, with the formation by the community of the Mt Suswa Conservation Trust, that serious effort was made to progress the initiative. In 2007 a team of British speleologists, building on the excellent previous work of the Cave Exploration Group of East Africa, and with the help of the local people, undertook a modern survey of the caves. This group also developed ideas for making the caves accessible to tourists, encouraged the local people to provide guiding services, and identified other opportunities for geological and wildlife tourism on the volcano. This paper will outline the challenges and opportunities facing the Trust in getting recognition for Mt Suswa as a special place, and particularly as a site that will demonstrate how geological resources may form a basis for tangible sustainable community economic and social development.

Katherine Snyder, International Centre for Tropical Agriculture (CIAT)

Landscapes and livelihoods in African contexts

Agricultural productivity is affected by the complex interplay of a wide variety of social, institutional and biophysical factors. Often, work to understand and analyze farming in Africa focuses on such issues as crop types, market factors, use of inputs, etc. on farmers' fields. What is often overlooked in the focus on agricultural systems is how rural community members use off-farm resources, how this use of the wider landscape affects their on-farm decisions and how social and in particular gender relations are mapped out in these wider landscapes. This presentation will focus on agriculture (encompassing agro-pastoralism) in the context of a broader physical and social landscape. The design of interventions to increase agricultural productivity, which has become the focus of many development interventions, needs to be considered with this broader lens as changes in the landscape may have unintended winners and

losers. Points to be highlighted from ongoing research include: 1) how institutions shape landscape use; 2) how formalizing rights and access to land and other resources may actually undermine access by women and the poorest community members; and 3) how land rights may or may not contribute to conservation outcomes. Examples from Tanzania, Ethiopia, Malawi and Ghana will be highlighted.

Lucy Warungi & Victor Mose, African Conservation Centre (ACC)

Ecosystem dynamics and 30-year landuse/landcover changes in the Kenya-Tanzania borderlands

David Williamson, Institut de Recherche pour le Développement (IRD)

Tackling water resilience in East-African landscapes: Scales and threshold issues