

Alice Tibazalika¹, Concepta Mukasa, Pius Wamala², Grace Okiror¹, Esther Mwangi³, Moses Buloa⁴ and Dennis Ojwang³

Key messages

A multi-stakeholder consultative process known as Participatory Prospective Analysis (PPA) proved successful in bringing stakeholders together to discuss forest landscape restoration (FLR) in the Mount Elgon ecosystem in Kenya's Rift Valley region. It attracted actors from local and central government, civil society, community-based organizations, and the private sector.

- The participants identified 32 potential "forces of change" for FLR in Mount Elgon for the coming decade. They then selected the five most influential forces. These were government policy, land tenure, financial management, ecosystem products and services, and community involvement.
- Participants then developed three possible scenarios for the future. One was desirable, one undesirable, and one had both desirable and undesirable aspects. The desirable scenario was characterized by: effective, transparent government; empowered, connected and knowledgeable communities that take ownership of FLR activities; clarity on land tenure and integrated management plans leading to sustainable use of ecosystem products and services and to improved local livelihoods.
- In the undesirable scenario, a corrupt, bureaucratic regime fails to implement effective policies and

- excludes communities from decision-making. This leads to increased forest exploitation. In the mixed scenario, the government is well-funded and effective at implementing FLR, but it excludes communities from the process and ends up privatizing the process. This forces locals to withdraw from the forest, which has severe implications for livelihoods, as well as bringing the risk of violent clashes and conflicts.
- In response to these scenarios, participants developed an action plan, which was presented, revised and adopted in two feedback workshops held four months after the initial meeting. Key actions in that plan include: harmonizing conflicting policies; clarifying land tenure; raising finance for FLR from the public and private sector; mapping, valuing and enhancing ecosystem products and services; and increasing community engagement in FLR through training and capacity-building.
- Although women's representation in the workshops was reasonable, gender issues were absent in many of the discussions, and it is recommended that a women-only PPA activity be organized to allow female stakeholders to express themselves more fully and to bring out gendered concerns.

¹ Association of Uganda Professional Women in Agriculture and Environment (AUPWAE)

² Tree Talk Plus

³ Center for International Forestry Research

⁴ Vi Agroforestry Kenya

Introduction

Reserve in 2003.

Mount Elgon in western Kenya is the second highest mountain in Kenya and one of five major water towers in the country (Figure 1). Its forest ecosystem, which straddles Kenya and Uganda, is of vital importance as an important catchment for the Rift Valley drainage system; millions of people downstream from Mount Elgon rely on this water tower to provide them with the water they require for their health and livelihoods. It is the source of rivers such as Nzoia (which drains into Lake Victoria), Turkwell (which drains into Lake Turkana), and Malakisi (which flows into Uganda).



Figure 1. The Mount Elgon forest ecosystem is of vital importance for the Rift Valley drainage system in Kenya. Image: Google maps Imagery @2019 Landsat/Copernicus, Imagery @2019 TerraMetrics, Map data @2019.

The area also harbours important genetic diversity of flora and fauna, cultural and historical resources, and attractions such as the Kitum caves, where elephants "mine" the rock for its salt. UNESCO designated Mount Elgon a Biosphere

In Kenya, the Mount Elgon ecosystem is gazetted as a montane forest reserve (73,705 hectares) managed by the Kenya Forest Service (KFS), a national park (16,916 ha) managed by the Kenya Wildlife Service (KWS), and a nature reserve (17,200 ha) managed by Bungoma County government. The KFS areas are co-managed jointly with forest-adjacent communities via Community Forest Associations (CFAs), while areas managed by the Bungoma County government are communal. KWS is solely responsible for managing the national park.

Nevertheless, the forest ecosystem faces serious threats of degradation, particularly from encroachment for cultivation, charcoal burning, and settlement. There are conflicts over land tenure, and forested land is at risk of being de-gazetted for settlement. Currently the government is seeking the Kenya National Assembly's approval to de-gazette 4,607 ha of Mount Elgon forest for the resettlement of the Sabaot community in an effort to resolve historical land injustices, reduce conflicts and spur local development.

FLR is a useful entry-point to address broader issues of forest and landscape degradation, and a crucial element in ensuring the area maintains its important functions as a water tower (Kinyili cited in AUPWAE 2019).

In 2005, the Kenyan government brought in a new Forests Act that recognized – among other things – the importance of involving forest-adjacent communities and CFAs in forest conservation and management, and incentivizing more sustainable behaviour. In this

context, in October 2018, as part of the Global Comparative Study (GCS) on Forest Tenure Reform, the Center for International Forestry Research (CIFOR) brought together community representatives, forestry officials, NGO representatives and other Mount Elgon stakeholders to explore how best to enhance FLR in the area.

The Association of Uganda Professional Women in Agriculture and Environment (AUPWAE) facilitated the five-day workshop in Eldoret, Kenya, with support from CIFOR. Participants carried out a participatory prospective analysis to identify a range of FLR scenarios for the area, and to elaborate a series of actions in response to those scenarios.

Participants represented a cross-section of stakeholders from Trans-Nzoia and Bungoma County governments, KFS, KWS, Heads of Conservancy (HoC), the National Environment Management Authority (NEMA), Community Forest Associations, Water Resource User Associations (WRUAs), the Community Development Associations (CDAs), and private sector representatives from the timber manufacturing sector. There were 35 participants, including 7 women and 21 men, meaning females represented just 33% of the total.

Four months later, in February 2019, the results of the workshop were presented back to stakeholders in two one-day workshops. One was held on 11 February in Bungoma town, capital of Bungoma County, a county in the former Western Province of Kenya. The second was held the following day in Kitale, capital of Trans-Nzoia County, a county in the former Rift Valley Province. At these workshops, the facilitators presented the results of the PPA process for feedback and discussion. Following this, the stakeholders officially adopted a revised version of the action plan.

Methodology

PPA can be described as a foresight scenario-based co-elaborative approach (Bourgeois & Jesus 2004) that combines participatory learning and information sharing to strengthen stakeholders' capacity to make decisions related to their future.

The approach facilitates the anticipation of changes in unstable environments, and helps stakeholders prepare for uncertain futures and to argue for better strategic choices. PPA aims to help decision-makers understand the key drivers, challenges and future consequences of policy options, so that they can more effectively make appropriate decisions at local, regional and national levels. Essentially, PPA enables people to make decisions today based on changes that may occur in the future (lbid).

Defining the "system"

The first step of the PPA process is to clarify the question to be addressed through foresight. This question has four dimensions, and it looks at "where, when and by whom." These dimensions make up the "system" to be examined. The foresight approach then explores various plausible transformations of this system.

After a long discussion, the workshop participants defined the system as: "Forest Landscape Restoration in Mount Elgon Ecosystem within 10 years with reviews after every three years by all stakeholders." They then identified all the stakeholders who are part of that system. This included national and county government agencies, civil society, the private sector and chamber of commerce, institutions such as universities, research centres and colleges, multinational agencies, communities, parastatals, individuals and development partners.

"Forces of change" and their influence on the system

"Forces of change" are defined as any factors that have the capacity to change the system, either positively or negatively. They can be economic, social, environmental, political or technical, and must be defined in the context of and by the workshop participants, rather than using a dictionary definition.

The participants identified 35 forces of change, and then began to assess the mutual influences of each of the identified forces on each of the others in the system. The existence or absence of direct influence between forces results in a classification of forces contributing to the "structure" of the system. Understanding the relationships between forces is an important component of the foresight work because it allows us both to understand what drives the system, and how it operates and changes. This structural analysis process also allows us to understand the nature of interactions at work and the relationships between the essential components of the system from a dynamic point of view.

Identifying "driving forces"

Through this analysis, participants were able to identify the seven most influential forces in the system. They then decided to merge some of the forces to finish with five "driving forces," shown in Table 1. While gender issues did not feature strongly in this analysis, this may be due to imbalanced gender participation in the PPA process, both in the gender balance of attendees and in the degree to which men and women were able to shape the conversations. A women-only workshop would accord gender issues higher priority.

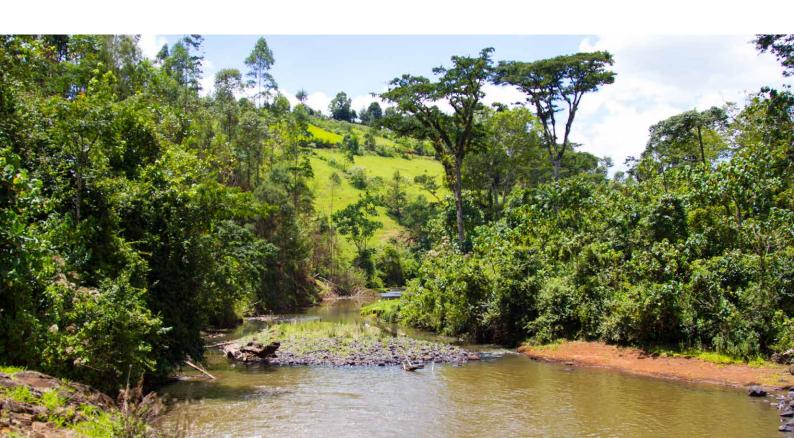


Table 1. Identifying driving forces for forest landscape restoration in Mount Elgon*

No.	NAME	DEFINITION
1	Government policy	The policies, laws, regulations and acts governing the forestry sector, and the administrative levels and institutions under which the environment sector is organized. These affect FLR because conflicting laws and policies limit the enforcement of forest protection and the implementation of restoration, whereas a clear, transparent and accountable sector supports and streamlines effective FLR.
2	Land tenure	The extent to which usage rights, ownership, and acquisition processes are respected. This affects FLR because when these notions and processes are disrespected it is very difficult to prevent unsustainable exploitation and destruction of the forests, and people are less likely to invest in restoration if their tenure rights are not to be honoured.
3	Financial management	The ways in which funds are put to use to support forest landscape restoration, and the amount of funding available from the different sources to support forest landscape restoration activities. This is important for FLR because it is a costly business that needs to be budgeted for and planned carefully if it is to make an impact.
4	Ecosystem products and services	The amounts, quality and types of forest products and services, and their level of utilization by the communities. This impacts FLR because if these products and services are available, well known and well used, communities have a strong incentive to conserve the forests and manage them sustainably. The amounts and types of incentives provided to participating communities and how they are distributed also affect FLR; when community members receive adequate incentives they are more likely to participate in FLR, and less likely to exploit the forest unsustainably in trying to meet their needs.
5	Community Involvement	The level and nature of participation of community members in ecosystem restoration activities.

Scenario-building

Next, the participants created a range of scenarios for how FLR may evolve in Mount Elgon in the future, according to a set of assumptions about the "states" of the key driving forces. The state of a driving force refers to its evolution as a supporting or limiting factor for forest tenure security (FTS). The scenarios were developed by combining various states of each of the

key driving forces to weave a coherent story about each combination. They are neither predictions nor forecasts; rather, they anticipate plausible transformations through the exploration of alternative paths. The groups of participants developed three scenarios: one undesirable, one desirable and one with both desirable and undesirable elements, which are elaborated in the box below.

SCENARIO 1 (DESIRABLE): VIBRANT MOUNT ELGON ECOSYSTEM

In this idealized scenario, the government effectively implements and popularizes forest policies and laws that are clear, inclusive, favourable, transparent, and specific, resulting in an increase in forest cover of over 10%. The scenario envisions:

- a well-funded natural resources sector that can afford to rehabilitate the Mount Elgon ecosystem
- empowered, connected and knowledgeable communities that take ownership of FLR activities within and around the forests
- clarity on land tenure issues leading to the recovery of more land for conservation and restoration
- integrated management plans resulting in sustainable use of ecosystem products and services and improved local livelihoods

SCENARIO 2 (UNDESIRABLE): COMMUNITIES LOCKED OUT

This scenario is characterized by a corrupt, bureaucratic regime that fails to implement effective policies and excludes communities from decision-making. The scenario envisions:

- uncontrolled use and exploitation of the forest due to unclear land tenure and poor enforcement mechanisms
- local communities that are unaware of the ill effects of poor ecosystem management, unmotivated to participate in FLR programs, and mistrustful of other stakeholders such as enforcement officers

- undervalued ecosystem services leading to increased degradation
- insufficient funding for FLR due to poor financial management and corruption

As a result of increased degradation and strained relationships with stakeholders, the government privatizes restoration, which places the ecosystem services and products in the hands of the private sector. The private owners either ban or restrict community access to these services and products, which negatively affects their livelihoods.

SCENARIO 3 (BOTH DESIRABLE AND UNDESIRABLE ASPECTS): COMMUNITIES OR FORESTS?

In this scenario, the government is proactive, well funded and effective at implementing FLR activities in the Mount Elgon ecosystem, so forest cover improves. However, communities are not engaged adequately in the process and continue to exploit the forest unsustainably. This prompts the government to privatize FLR, which places the ecosystem services and products in the hands of private operators. The move leads to complete mechanization of the forestry sub-sector, resulting in improved time management, lowered operation costs, and improved quality and quantity of forest products and services. However, it also forces local communities to completely withdraw from participation in forest activities and to lose a valuable source of their livelihoods. It also poses a threat to FLR activities through the clashes and conflicts that occur.



The essential differences between the scenarios lie in how forest is managed and by whom. In the desirable scenario, empowered and engaged communities play a strong role in FLR alongside transparent, well-funded institutions, while in the undesirable scenario communities are locked out of engagement in FLR by a self-serving, inefficient and corrupt administration. In the mixed scenario, forest management is privatized, which yields some environmental benefits but comes at the expense of community involvement and buy-in.

Action plan

After working out the plausible desirable and undesirable future scenarios, the participants developed a set of actions that they thought would mitigate the negative effects of the undesirable scenario, and promote or enhance the desirable one. The action plan that resulted was presented back to participants at the feedback workshops four months later. Following discussion and integration of new material, a final action plan covering the next decade was officially adopted. In the version below, the plans have been amalgamated and new material specific to Trans-Nzoia and Bungoma has been identified as such. Key features of the plan include: harmonizing conflicting laws, policies and regulations; clarifying tenure; raising finances for FLR; inventorying existing forest products and ecosystem services and then working to improve them; and scaling up community participation in FLR through education, capacity-building and support to promote sustainable livelihoods within the ecosystem.

Table 2. Final Action Plan for the next decade

DRIVER	OBJECTIVE	ACTIVITIES	RESPONSIBILITY	TARGET GROUP	INDICATORS
Government policy	Review & harmonize conflicting institutional policies	Sesitization meetings Training programs: Environmental Management & Coordination Act, Forest Conservation and Management Act, Water Act, Water Conservation and Management Act, etc. Lobbying and advocacy Drawing up & harmonizing draft policies, laws & regulations on forestry restoration in Mount Elgon ecosystem Hold validation meetings & adopt policies, laws & regulations	KFS: taking lead in coordinating	Community-based organizations (CBOs), Business community, Local community, Gov't agencies, County gov'ts, CFAs, WRUAs, Water Resource Authority (WRA), KWS, National Environmental Management Authority, Ministry of Energy, Ministry of Agriculture	Harmonized draft policies, laws, regulations Reports Attendance lists
Land tenure	Have a clearly defined land ownership system	Establish registration status of all land parcels in the ecosystem Participation meetings Surveying, adjudication, demarcation and titling Establish & maintain a digital assets register at the Lands Registry	KFS	Ministry of Lands, County gov't, Local community, National gov't	Number of title deeds issued Land Register Number of parcels demarcated Minutes of meetings held Survey maps Attendance lists
Financial management	To raise adequate finance for forest restoration	Proposal writing Identify funding partners Training members on financial management systems Implementation plan and reporting Procurement plan and reporting Monitoring & evaluation	KFS, County gov't, CFAs, WRUAs, WRA	County gov't, NGOs, Businesses, Community members	Proper utilization of funds Increased capacity-building Improved livelihoods for community members Regular report to funders Reports & minutes from meetings Financial records that can be audited
Ecosystem products and services	To increase quality & quantity of ecosystem products & services	Baseline survey on ecosystem products& services Develop implementation plan, including training stakeholders on natural resources management Identify & purchase inputs for restoration Implement the plan Source for expertise in value-adding for forest resources Establish tree nurseries Tree-planting activities Marketing products Establish project implementation committee Develop water allocation plan (Trans-Nzoia) Payment for Ecosystem Services (Trans-Nzoia) Baseline survey on status of riverbanks in the ecosystem (Bungoma only)	KFS, Project implementation committee, CFAs, CBOs, WRUAs, WRAs, County govt, Kenya Forestry Research Institute (KEFRI), Community members, Water companies	Private farmers, Community, Religious institutions, Schools, Tertiary institutions, Private companies & organizations, Kenya Electricity Transmission Company, Kenya Electricity Generating Company, Kenya Tea Development Agency, Small hydropower- generating companies, KWS, Kenya Water Towers Authority, Development partners (e.g. International Union for the Conservation of Nature, European Union, African Development Corporation), Seed companies	Number of trees planted Improved water quality & quantity Increased biodiversity Photos & reports produced Development of Cottage Industries Livelihoods improvement Water allocation plan in place (Trans-Nzoia)
Community involvement	Enhance community participation/ involvement in forest landscape restoration	Training (governance, commercial tree nursery establishment, livelihood improvement, communication and negotiation skills, financial management skills) Supply of materials Implementation of management plans to be financed Enhance skills in concept notes Resource mobilization Commercial tree-growing & agroforestry (Trans-Nzoia) Promote Income-generating Activities (IGAs) Value addition on tree products & indigenous vegetables Promote small-scale industries, e.g. water bottling Enhance ecotourism in Mount Elgon (rebrand and market) (Trans-Nzoia) Promote agro-tourism (Trans-Nzoia)	CFAs, WRUAs, KFS, County gov'ts, Community members, KWS, National Alliance of Community Forest Associations, National Museum of Kenya (NMK), Kenya Tourism Board, Swedish NGO Vi Agroforestry, County Dept. of Agriculture	Schools, Faith-based institutions, Scouts, CBOs, Indigenous forest- dwellers, Business community (small manufacturers), Farmers (large & small)	Reduced conflicts Increased tree cover Increased biodiversity Improved livelihoods Increased number of school-going children Protected river banks (Bungoma) increased quantity & quality of water Presence of small-scale industries Number of eco-tourism sites developed & number of tourists (Trans-Nzoia)



Conclusion

The PPA process proved successful in bringing stakeholders together to discuss FLR in the Mount Elgon ecosystem. It attracted actors from local and central government, civil society, community-based organizations and the private sector.

The participants identified 32 forces of change for FLR in Mount Elgon for the coming decade. They then selected the five most influential forces, namely government policy, land tenure, financial management, ecosystem products and services, and community involvement.

From there, three possible scenarios were foreseen: one desirable, one undesirable and one with both desirable and undesirable aspects. The desirable scenario was characterized by clarity over land tenure, empowered and engaged communities, adequate and sustainable

financing for FLR, and increased forest cover. In the undesirable scenario, communities are locked out of engagement in FLR by a self-serving, inefficient and corrupt administration, resulting in more illegal practices and degradation. In the mixed scenario, forest management is privatized, resulting in high-efficiency FLR but dispossessed and disengaged communities, leading to livelihood loss and conflict that threatens any gains made.

The participants then developed an action plan covering the next decade, which was presented, revised and adopted in two feedback workshops held four months after the initial meeting. Planned activities include policy harmonization, tenure clarification, finance-raising, mapping and improving forest products and services, and scaling up community engagement in FLR.

Recommendations

Women's representation in the workshops was low, and gender issues were absent in many of the discussions. This may be because in mixed-gender groups in the region, male participants often dominate conversations and women are less likely to speak up about gendered concerns. To achieve better representation of women, it is recommended that a women-only PPA activity be organized that would allow them to express themselves and to bring out gendered concerns.

Acknowledgments

CIFOR's "Global Comparative Study on Forest Tenure Reform" is funded by the European Commission and the Global Environmental Facility (GEF) with technical support from the International Fund for Agricultural Development (IFAD) and the United Nations Organization for Food and Agriculture (FAO). We would also like to thank FAO for their helpful reviews and comments on earlier versions. This study forms part of the Program on Policies, Institutions and Markets (PIM), led by the International Food Policy Research Institute (IFPRI); and the CGIAR Research Program on Forest, Trees and Agroforestry (FTA), led by CIFOR. This flyer has not gone through IFPRI's standard peer-review procedure. The opinions expressed here represent the analysis of the authors and do not necessarily reflect the views of IFPRI, CIFOR, CGIAR or the financial sponsors.

References

AUPWAE. 2019. Report of the participatory prospective analysis workshop – Mount Elgon region, Kenya. Uganda: AUPWAE Secretariat (Unpublished)
Bourgeois R and Jesus F. 2004. Participatory Prospective Analysis: Exploring and Anticipating Challenges with Stakeholders. CGPRT publication (ESCAP) no. 46. Bogor, Indonesia: ESCAP.

The photos of the workshop are by Concepta Mukasa



The CGIAR Research Program on Policies, Institutions, and Markets (PIM) leads action-oriented research to equip decisionmakers with the evidence required to develop food and agricultural policies that better serve the interests of poor producers and consumers, both men and women. PIM combines the resources of CGIAR centers and numerous international, regional, and national partners. The program is led by the International Food Policy Research Institute (IFPRI). www.pim.cgiar.org



This research was carried out by CIFOR as part of the CGIAR Research Program on Forests, Trees and Agroforestry (FTA). FTA is the world's largest research for development program to enhance the role of forests, trees and agroforestry in sustainable development and food security and to address climate change. CIFOR leads FTA in partnership with Bioversity International. CATIE. CIRAD. INBAR. ICRAF and TBI.

FTA's work is supported by the CGIAR Trust Fund: cgiar.org/funders/







cifor.org | forestsnews.cifor.org



Center for International Forestry Research (CIFOR)



