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Key messages

A multi-stakeholder consultative process known as Participatory Prospective Analysis (PPA) proved successful at bringing stakeholders together to share information and explore steps to bring about desirable future scenarios for forest tenure in the Mount Kenya and Abedare forests in Kenya's highlands.

- Of the 29 identified "forces of change," the
 participants identified five "drivers of change" in the
 region for the coming decade, namely: culture; publicprivate partnerships; the political environment and
 policy formulation; land tenure systems; and access
 to financial resources.
- Participants then developed three potential future scenarios, based on various "states" of the identified drivers: one desirable and two undesirable.
- The desirable scenario was characterized by a supportive government, strong public-private partnerships, a clear land tenure system, highly-

- valued natural resources and strong community awareness and participation.
- In the undesirable scenarios, communities were alienated from the forest resource through privatization and/or poor governance. This resulted in increased tension and illegal exploitation of the forest, as well as livelihood losses for forestdependent communities.
- At the end of the PPA process, participants devised action plans to help bring about the desirable scenario and avoid undesirable outcomes. Suggested measures included civic education on environmental issues, capacity-building for stronger public-private partnerships, clarification of land tenure, and the promotion of environmentally-friendly incomegenerating activities. These plans were presented back to stakeholders for feedback at a later meeting, and then adopted.

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Introduction

Secure access to and control over forests and tree resources are broadly recognized as necessary conditions for reducing poverty, increasing food security and ensuring sustainable forest management. But forest and tree tenure is often unclear, contested and – in many cases – insecure, which discourages investment and improved management of trees and forests by communities and limits opportunities to improve incomes or enhance livelihoods. Where tenure is unclear, "open access" situations can lead to forest degradation and conversion.

In this context, the Center for International Forestry Research (CIFOR) carried out a Global Comparative Study (GCS) on Forest Tenure Reform to explore ways to implement tenure reform more equitably and effectively in a range of locations across Africa, Latin America and Asia.

As part of this project, facilitators from the Association of Uganda Professional Women in Agriculture and Environment (AUPWAE) ran a fiveday workshop (8-12 October 2018) in Nyeri County in Kenya's central region for stakeholders from the Mount Kenya and Abedare forest regions, with support from CIFOR's Nairobi hub. The facilitators used Participatory Prospective Analysis (PPA) methodology to help identify the driving forces of forest tenure security (FTS) in the region, foresee future states and plausible scenarios, and develop actions for strategic planning.

There were 19 participants (11 men and 8 women) from a range of organizations and walks of life, including the Kenya Forest Service (KFS), the Kenya Wildlife Service (KWS), the Kenya Tourism Board (KTB), the county government, the Water Resources Authority (WRA), Community Forest Associations (CFAs), Water Resource User Associations (WRUAs), NGOs and civil society.

While women constituted 42% of the participants, active contribution came from only about four of the eight female participants.

Four months later, on 14 February 2019, the stakeholders reconvened at the same location for a one-day follow-up workshop, at which 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.

Context

Kenya's Nyeri County straddles two national parks, Mount Kenya and Aberdare. UNESCO recognized the former as a world heritage site in 1997, and in 2010 KFS submitted the latter for consideration. According to the 2017 Nyeri County Integrated Development Plan, the county has 12 gazetted forests covering 115,000



Kenya's Mount Kenya and Abedare forest regions. Imagery @2019 Landsat / Copernicus, Imagery @2019 TerraMetrics, Map data @2019

hectares (ha) and non-gazetted forests covering 235 ha. It also has six conservancies, which are areas of land managed by an individual landowner, a body or corporate group of owners, or a community for purposes of wildlife conservation and other compatible land uses.

The total area of all the conservancies is a million hectares (Head of Conservancies cited in AUPWAE 2019), of which 20% is gazetted forest land and the remaining 80% is either private or community land. In Kenya, wildlife conservancies are a recognised form of land use under the 2013 Wildlife Act. This makes them an attractive land-use option for communities and land owners, as they offer improved land and resource rights for the lease-hold period of 99 years, which is renewable, according to the 2016 report on the state of wildlife conservancies in Kenya.

Threats to sustainable forest management in the county exist for both gazetted and non-gazetted private forests. However, public forests are under particular threat because of weak management systems. The main threats include activities such as illegal logging, charcoal burning, over-grazing, human-wildlife conflicts caused by game damage to trees and crop raiding, invasive species, encroachment and excisions, illegal and over-extraction of water, and the illegal cultivation of marijuana, especially on the eastern side of Mount Kenya. Cultural practices such as transhumance and seasonal burning by other communities also impact negatively upon the forests.

According to the 2010 Mount Kenya Ecosystem report, some further challenges include inadequate technical knowledge, inadequate capacity of Community Forestry Associations (CFAs) and Water Resource User Associations (WRUAs) to meet public and government

expectations, and conflicting policies on different resources such as water, wildlife, and forests. Protecting forests is major challenge in an area with a population of 4.3 million and only 492 KFS employees to secure them.

Methodology

Participatory Prospective Analysis is a by foresight, scenario-based co-elaborative approach that combines participatory learning and information-sharing to strengthen stakeholders' capacities to make decisions about their futures (Bourgeois & Jesus 2004). It's a useful tool for FTS because it facilitates the anticipation of changes in unstable environments, helps stakeholders prepare for highly variable and unpredictable evolutions, and argue for better strategic choices. PPA also builds stakeholders' capacity to efficiently produce and share useful information for decision-making.

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.

For the purposes of the workshop, the facilitators defined forest tenure security as "a condition where forest communities are assured of and are able to exercise their full tenure rights to forests." They stated further that tenure rights are undisputable statutory or customary rights of individuals or communities, which are recognized and respected.

Participants agreed with this definition and following further discussion, they defined the system for exploration through the PPA process as "the plausible future of forest tenure security (FTS) in the Mount Kenya/Abedare region within a period of five years."

Participants then compiled a list of stakeholders who have an impact on and are impacted by FTS in the region. Among them are government bodies, community members and organizations, civil society, development partners, wildlife conservancies and private sector actors.

"Forces of change" and their influence on the system

A "force of change" is anything that has the capacity to change the system either positively or negatively, and it can be a social, technical, economic, environmental or policy factor. The participants identified 29 relevant forces of change, and then carried out a structural analysis to assess the mutual influence between forces. They then analyzed these to identify the driving forces.

Identifying "driving forces"

From this structural analysis process, participants identified the eight most influential forces in the system. They then agreed on five "driving forces" that they deemed most influential, which are presented and defined in Table 1.

Gender concerns, particularly women's involvement in FTS, did not feature among the five selected drivers of forest tenure security in Nyeri County. However, they did feature in the selection of leverages, suggesting that female involvement is a strong force but because women were outnumbered men at the workshop and their active representation relatively low, the gender factor was outweighed by other forces. A woman-only workshop would accord gender issues in FTS higher priority.

Table 1. Identified driving forces for forest tenure security in Mt Kenya / Aberdare

No.	NAME	DEFINITION		
1.	Culture	Traditional practices, trends and norms, such as forest grazing and seasonal burning by migratory pastoralists, which impact forest health and infringe on the tenure security of other forest users.		
2.	Public-private partnerships	Collaboration between government, non- and for-profit institutions. For example, supportive partnerships can provide forest communities with resources and capacity-building to develop sustainable income-generating activities, which can help to legitimize their rights to forest land and resources more widely.		
3.	Political environment	Willingness of governing bodies to support implementation of natural resource management (NRM) programs, and development of effective and acceptable legal courses of action. For example, if community tenure is not supported and enforced adequately by policies and policing, illegal and exploitative activity is more likely and community FTS is weakened.		
4.	Land tenure system	The right to own, access, use and dispose of land within a given period of time. If the system is unclear, communities and individuals will feel less secure in their ownership and may be less likely to use the land sustainably.		
5.	Access to financial resources	The avenues available for getting funds to support programs in the forest sector. If such funding is readily and equitably available for upskilling and enterprise development, more community members may be able to effectively exercise their tenure rights and use the forest resources sustainably and in support of their livelihoods.		

Scenario-building

Next, the participants described various ways that FTS in Mount Kenya / Abedare could unfold in 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 FTS. Participants identified states for all five selected driving forces, and considered those that were more and less desirable, before developing one desirable and two undesirable scenarios.

These scenarios describe how the future could unfold, and were developed by combining various states of

each of the key driving forces to weave a coherent story about each combination. In the first scenario, a supportive government boosts tenure clarity, community engagement and local livelihoods. In the second, the forest resource is privatized at the expense of community access and livelihoods, and communities turn to illegal and unsustainable forest exploitation as a result. In the third scenario, corrupt governance leads to wholescale forest destruction and eventually to a total ban on forest access and use. The three scenarios are elaborated in the box below.

SCENARIO 1 (DESIRABLE): EMBRACING SOUND NATURAL RESOURCE MANAGEMENT

In this idealized scenario, NRM is prioritized by highly supportive government and strong public-private partnerships, resulting in a 35% increase in tree cover. The scenario sees:

- a clear and multi-sectoral land tenure system that is conducive to restoring and conserving natural resources
- increased awareness of the environmental benefits and contribution of natural resources to economic development
- strengthened community participation and improved local livelihoods through services such as social programmes, adoption of appropriate technologies, and income-generating activities

SCENARIO 2 (UNDESIRABLE): PRIVATISATION LEADS TO POVERTY, DEGRADATION AND CHAOS

In this extremely undesirable scenario, the land tenure system is centred on leasing public land to the private sector, which limits public access, causes conflict and heightens resource exploitation. The situation is characterized by:

- poor governance, inappropriate policies and inadequate financial resources, which make it difficult to implement NRM programmes
- unsustainable use of the forests by communities

As a result of the dysfunction, financial support for the gazetted forests is withdrawn and they are de-gazetted, leading to chaos. This entails wholesale destruction of natural resources, job loss, and increased crime and poverty for forest-dependent communities. At a larger scale, resource insecurity, economic recession and a lack of state sovereignty prompt dependency syndrome, donor fatigue, civil wars, and a possible coup.

SCENARIO 3 (UNDESIRABLE): POOR GOVERNANCE AND CORRUPTION ELIMINATE FOREST ACCESS

This scenario is characterized by poor governance, including inappropriate, self-interested and conflicting policies, poor benefit-sharing, high corruption and political interference. The scenario sees:

- communities losing the will to get involved in conservation
- withdrawal of donors from funding NRM
- bad practices such as land-grabbing, encroachment, illegal logging, over-grazing and planting of exotic trees in water towers, resulting in over-exploitation of the forest resource and uncontrolled wildlife damage. This leads to degradation, desertification and water scarcity, as well as increased conflicts over resources.

Communities have no access to forests, leading to loss of livelihoods for forest-adjacent communities, as well as disruption of development infrastructure and social programs such as schools and hospitals.

Action plan

After exploring these future scenarios, the participants proposed actions that they thought would mitigate the undesirable scenarios and promote or enhance the desirable one. The plan was presented back to participants at the feedback workshop four months later, in February 2019. Following discussion and integration of new material, participants officially adopted the final action plan. The plan features

raising community consciousness about conservation, initiating and strengthening public-private partnerships, exploring new avenues to access financial resources, working to create a more supportive political climate for NRM, clarifying the land tenure system, advocating for increased funding for NRM, and initiating incomegenerating activities in and around the forests.

Table 2. Final Action Plans

DRIVER	OBJECTIVE	ACTIVITIES	RESPONSIBILITY	TARGET GROUP	INDICATORS
Culture	To promote conservation-conscious community	Civic education through public barazas (community meetings) Mass and social media, including radio programs	National gov't & line ministries, Chiefs, KFS, WRAs, KWS, CFAs, WRUAs	Local community	Number of public barazas Minutes of meetings Number of participants Reports
Public- private partnerships	To initiate & strengthen public-private collaboration	Capacity-building Resource mobilization Investors' conferences	National gov't & line ministries, Chiefs, KFS, WRAs, KWS, CFAs, WRUAs, NGOs, County gov't, Private companies, Kenya Power	Community, Research institutions, Financial institutions, Private companies (eg telecommunications, CocaCola etc.)	Trainings / workshops / seminars Number of public fora Reports Number of proposals drafted and submitted Number of research studies done
Access to financial resources	To explore avenues to access financial resources	Writing proposals Resource mobilization training Membership recruitments & subscriptions to WRUAs & CFAs Promote environmentally- friendly income-generating activities Promote utilization of devolved funds for youth & women at local levels Build capacity of communities to access financial resources Create marketing networks & value addition	KFS, WRA, KWS, CFAs, WRUAs, NGOs, County gov't, Private companies	National/County gov't, Financial institutions, Donors, Community contribution	Number of partners Number of proposals Number of members recruited
Political environment	To have a conducive political climate	Engagement of stakeholders through workshops/seminars	Civil society County government parastatals in forest services	County government MCAs County executive Private sector: banks, Kenya Electricity Generating Company, water companies, Highlands, hoteliers, Coca Cola company, tea factories, institutions, horticultural farms	An acceptable policy Increased funding Development of joint management plans of various sites
Land tenure system	To have in place a practical land tenure system	Advocating for policy by county gov't	County gov't, CSOs, Relevant gov't institutions	County gov't & line ministries	A land policy in place & benefit sharing
		Acquire ownership documents for the forests	County gov't, KFS, Line ministries	National land commission	Number of titles acquired
		Demarcation of forest boundaries	KFS,CFAs, Nature Kenya, KWS, NMK, KEFRI, KC	All stakeholders: KFS, CFAs, NatKenya, KWS, NMK, KEFRI, KC etc.	Policy document available and implemented
		Law enforcement	County gov't & line ministries	Communities	Forest health status reports
Access to financial resources	A prioritized, adequately funded NRM sector	Policy advocacy / marathon Resource mobilization	CFAs, WRUA, CSOs, CBOs	County gov't, CSOs, Development partners	Budgets & amount allocated
		Bringing on board private sector in the NRM sector/ stakeholders' workshop Policy in place on benefit sharing	CFAs, WRUA, CSOs, CBOs	County gov't, CSOs, Development partners	Number of projects funded
	Initiating income- generating activities	Stakeholders' forum	CFAs, WRUA, CSOs, CBOs	Private sector – banks, Kenya Electricity Generating Company (Kengen), water companies, Highlands, Hoteliers, Coca Cola Company, Tea factories, institutions, horticultural farms	Amount of funds available for the community programs Adoption of payments for ecosystem services and corporate social responsibility into the sector

Conclusion

The PPA process proved successful at bringing stakeholders together to share information and explore steps to bring about desirable future scenarios for land tenure in Mount Kenya/Abedare. The participants identified drivers of FTS in the region for the coming decade, which included culture, public-private partnerships, the political environment and policy formulation, the land tenure system, and access to financial resources.

Next, they developed three potential future scenarios based on various "states" of the drivers: one desirable and two undesirable. The desirable scenario featured supportive government, strong public-private partnerships, a clear land tenure system, highly-valued natural resources, and strong community awareness and participation. In the undesirable scenarios, communities were alienated from the forest resource through privatization and/or poor governance. This resulted in increased tension and illegal exploitation of the resource, as well as livelihood losses for forest-dependent communities.

The participants then devised action plans to help bring about the desirable scenario and avoid undesirable outcomes, which were combined and adopted at a feedback workshop in February 2019. The plan features civic education, strengthening public-private partnerships, clarifying land tenure, and promoting environmentally-friendly income-generating activities, among other actions.

Recommendations

The PPA exercise did not bring out gendered concerns, despite women's attendance at the workshops in reasonable numbers. This may be because in mixed-

gender groups in the region, male participants tend to dominate conversations and women are less likely to speak up about gendered concerns. To improve gender representation, it is recommended that a PPA activity solely for women be organized, to allow them to express themselves and their concerns more fully.

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