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Key messages

A multi-stakeholder consultative process known as Participatory Prospective Analysis (PPA) proved successful in bringing together stakeholders to find ways to enhance forest tenure security (FTS) in Kilifi County, which was formed in 2010 after a merger of Kilifi and Malindi districts, and is located on the Kenyan coast north of Mombasa. A workshop held in Mombasa in October 2018 brought together actors from government, NGOs, the private sector, community members organized in community forest associations (CFAs), and indigenous leaders.

- The participants identified 32 potential "forces of change" for FTS in Kilifi through to 2023. From these, five "driving forces" were identified: partnerships in forest management; benefit-sharing mechanisms; implementation of policies; management of forest resources; and knowledge management. The process revealed that while clear policies to enhance FTS were already in place, many of these were poorly or negligibly implemented.
- Three potential scenarios for 2023 were developed

 one desirable and two undesirable based
 on different "states" of the driving forces. In the
 desirable scenario, both indigenous and conventional
 bodies of knowledge are well-integrated into
 forest management, and supported by a clear legal
 framework and an effective enforcement mechanism.
 Communities and other stakeholders play an active
 role in forest management, decision-making and
 monitoring, and there are strong partnerships
 between governing bodies. As a result, forest
 management has improved and there is enhanced
 forest cover.

- In the undesirable scenarios, a corrupt, inept and self-interested regime leads to dysfunctional partnerships between organizations and to the exclusion of communities and other stakeholders from forest resource management and decision-making.
 Indigenous knowledge is not valued or managed effectively, leading to a loss of this information and of culturally- and ecologically-significant areas of forest. As a result, forests are encroached upon and destroyed at increased rates, leading to a decrease in forest cover and increase in poverty levels.
- The PPA then identified potential actions to be undertaken by different stakeholders to improve FTS over the next decade, which participants felt were directly or indirectly linked to forest tenure security. These included: strengthening forest management partnerships through capacity-building and improved frameworks; developing a strategy for more equitable sharing of forest products and services by doing inventories of these and developing appropriate policies; enhancing the integration of indigenous and conventional knowledge in forest management through improved documentation, outreach and education; strengthening the rule of law in forestry management; and managing forest resources better, including restoring degraded areas through massive tree-planting campaigns.
- While women's representation was fair during the workshops, the issue of gender did not feature in the scenarios or actions, probably due to cultural factors that inhibit women's ability to freely express themselves in the presence of men. It was therefore recommended that a women-only PPA be organized to capture gendered concerns.

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Introduction

In Kenya, as in many other countries in Africa, as well as in Asia and Latin America, forest tenure reforms in recent decades have aimed to reverse the erosion of FTS and return tenure and management rights for forests to the communities that live in and around them.

However, the extent to which this is actually occuring remains uncertain. In this context, the Center for International Forestry Research (CIFOR) carried out a Global Comparative Study (GCS) on Forest Tenure Reform, which explored the relationships between statutory and customary land tenure, and how these relationships affect the tenure security of forest-dependent communities, including women and other marginalized groups.

Kilifi County is located on the Kenyan coast north of the city of Mombasa, which is also Kenya's smallest county. From 15 to 19 October 2018, 23 stakeholders from the GCS-Tenure project in the coast region gathered in Mombasa for a participatory prospective analysis (PPA) workshop to identify and explore potential forest tenure security (FTS) scenarios for the coming years, and to generate action plans to help bring about desirable outcomes.

A team from the Association of Uganda Professional Women in Agriculture and Environment (AUPWAE) facilitated the workshop with support from CIFOR. Participants hailed from mining companies, the Kenya Forestry Service (KFS), the Kenya Wildlife Service (KWS), Community Forest Associations (CFAs),

Charcoal Associations and the National Museums of Kenya (NMK), as well as research and cultural institutions. Nine women and 14 men participated. The forestry sector in Kenya is maledominated, so to get equal male-female representation for such events is a challenge. Even getting nine female participants was possible only because other sectors, such as water, were also part of the PPA meeting.

Four months later, on 15 February 2019, a new group of stakeholders (including some attendees from the previous workshop, as well as some new faces) gathered in the nearby town of Malindi for a one-day follow-up workshop. There, the facilitators presented the results of the PPA process for feedback, discussion and validation. Following this, the stakeholders officially adopted a revised version of the action plan.

Context

In 2010, when Kilifi County was formed after a merger of Kilifi and Malindi districts, total forest cover in the county was 141,385 hectares (ha). Within this figure, however, were multiple forest types and tenure regimes at play, making the county a particularly valuable place to explore forest tenure issues with multiple stakeholders.

The county boasts of the largest remaining fragment of coastal forest in East Africa, the Arabuko Sokoke terrestrial forest reserve. Spanning 41,600 ha, this reserve is managed jointly by KFS, KWS and local CFAs. Kilifi's expansive mangrove forests (6,378 ha) are similarly co-managed by government and communities, although the Kenya Fisheries Service is also involved, as it provides valuable nurseries for fish.

In Kilifi County there are also 17 Kayas, or customary forests sacred to the Mijikenda indigenous group. They contain vast amounts of genetic material and have a combined area of about 1,700 ha. All are gazetted as heritage sites, and they operate under various management regimes. Three are forest reserves jointly managed by KFS, NMK and the community, while the rest are managed by NMK and community, although the land is held in trust by the Kilifi County government. Seven of the Kayas are UNESCO heritage sites, which provides another layer of official recognition.

There is also a large expanse of non-gazetted forest, including notable areas such as Dakatcha Woodland and Mwangea Hill, which are at greater risk of



Kilifi County in Kenya's coast region has multiple forest types and forest tenure regimes

exploitation due to tenure uncertainty. These forests cover over 90,000 ha and are shrinking much faster than the protected forest; 14% of their total area was lost between 2001 and 2017.

The county's forests face a range of challenges. According to Nicholas Munyao, assistant Head of Conservancies (HoC) for the coast region, KFS struggles with capacity to effectively manage the forests in its care. Population expansion is increasing demand for land to use for agriculture; non-gazetted areas are under particular threat of overexploitation by charcoal producers, and large chunks of cultural forest areas have already been destroyed. What's more, younger people are largely disinterested in being involved in forest management, although KFS is trying to gain their interest with Collaborative Forest Management partnerships (AUPWAE 2019).

Methodology

Participatory Prospect Analysis (PPA) is a systematic, co-elaborative process of developing foresight about future scenarios (Bourgeois & Jesus 2004), which combines participatory learning and information sharing. The method aims to strengthen stakeholders' capacity to understand the key drivers, challenges and future consequences of policy options, and to become more active and effective in their decision-making at local, regional and national levels. The process helps people make decisions today based on changes that may occur in the future. In the GCS-Tenure project, the PPA process is used to build shared understanding and joint action for reform and security of forest tenure.

Defining the "system"

After describing the PPA process, the workshop facilitators defined the term "forest tenure security" in the context of the workshop as "the condition of forest communities being assured or being able to

exercise their full tenure rights as regards to forests." They explained further that tenure security refers to the degree to which an individual or group believes its relationship to land and other resources is safe (Poffenberger 1990).

Next, participants defined the boundaries of the "system" they would explore through PPA analysis, as "Forest Tenure Security of Kilifi County by Communities within 5 years' time," which they encapsulated in the following question: "What could happen to forest tenure security in Kilifi County by 2023?"

They then compiled a list of stakeholders who would affect and be affected by the system. The list included government, NGOs & international organizations, community-based organizations, local communities and indigenous elders, private sector actors, entrepreneurs, traders, learning institutions, policymakers, and environmental conservationists and activists.

"Forces of change" and their influence on the system

Next, the participants identified and defined 32 "forces of change" that influence the system. These included economic, social, environmental, political and technical elements. After that, they assessed the influence of each of these forces on each other force within the system. They entered the results in the influence/dependence matrix and analyzed the results in order to identify the driving forces.

Identifying "Driving forces"

This structural analysis process revealed the eight most influential or "driving forces" in the system. Participants then agreed on the five driving forces that they deemed the most influential, which are presented in Table 1.



Table 1. Identified driving forces for Forest Tenure Security in Kilifi County*

No.	NAME	DEFINITION			
1	Partnerships in forest management	The linkages/working relations among the stakeholders. For example, if relationships are poor and decision-making processes are not inclusive, many community members' FTS will be weakened as they lose their say in the way the forests are managed.			
2	Mechanisms of benefit sharing	The avenues of equitable distribution of gains from forest products and services by men, women, and youth at household level. For example, if women and youth receive benefits from work they do in the forests (such as planting trees), they will be more likely to feel a sense of ownership and security, and to invest in this work in the future.			
3	Implementation of policies	The extent to which the forest management policies, laws and regulations are put into practice. For example: The law is "no charcoal production is allowed in any state reserve," but charcoal production continues in full view of the policy implementers. This undermines the rights of other forest users such as firewood collectors, who eventually lose interest in conserving the resource.			
4	Management of forest resources	The level of transparency and accountability, the extent to which the transition of roles and responsibilities are distributed between and among stakeholders, and the strategies applied in the management of forests. For example, if stakeholders' activities in and around forests are not transparent, different groups may lose trust in each other and feel less secure that the forest is being managed and used sustainably and in accordance with agreements.			
5	Knowledge management	The extent to which indigenous and conventional knowledge/information is documented and disseminated. For example, if indigenous knowledge about forests is well-documented and shared through institutions such as local schools, it is more likely that younger generations will continue to value and conserve the things that indigenous elders deem important in forest management because they will have assurance of their tenure rights and therefore security.			

N.B. Although gender issues were identified as one of the forces of change as "Women involvement" and was defined as "the extent to which the women are empowered to participate in forest management activities," it did not feature strongly in this analysis as one of the selected driving forces. This was because of the skewed gender representation in the meeting, and yet during the discussions gender seemed a strong force affecting women's forest tenure security. It is likely that a woman-only workshop would accord higher priority to gender issues.

Scenario-building

Next, the participants outlined descriptions of various ways that FTS in Kilifi could unfold in future, according to a set of assumptions about the "states" of the key driving forces. The state of a force refers here to its evolution as a supporting or limiting factor for FTS. Participants deduced states for all five selected driving forces and

considered those which were more and less desirable. They then developed one desirable and two undesirable future scenarios by combining various states of each of the key driving forces to weave coherent stories, which are shown in the box below.

SCENARIO 1 (DESIRABLE): FORESTS - OUR HERITAGE, OUR WEALTH

In this idealized scenario, communities and their knowledge are valued and integrated into management systems, and governance is fair, accountable and built on strong partnerships. The scenario foresees:

- both indigenous and conventional knowledge well-integrated into forest management, and supported by a clear legal framework and an effective enforcement mechanism
- communities and other stakeholders playing an active role in forest management, decision-making and monitoring
- strong partnerships between county and national governments with the private sector

As a result, forest management has improved and there is enhanced forest cover.

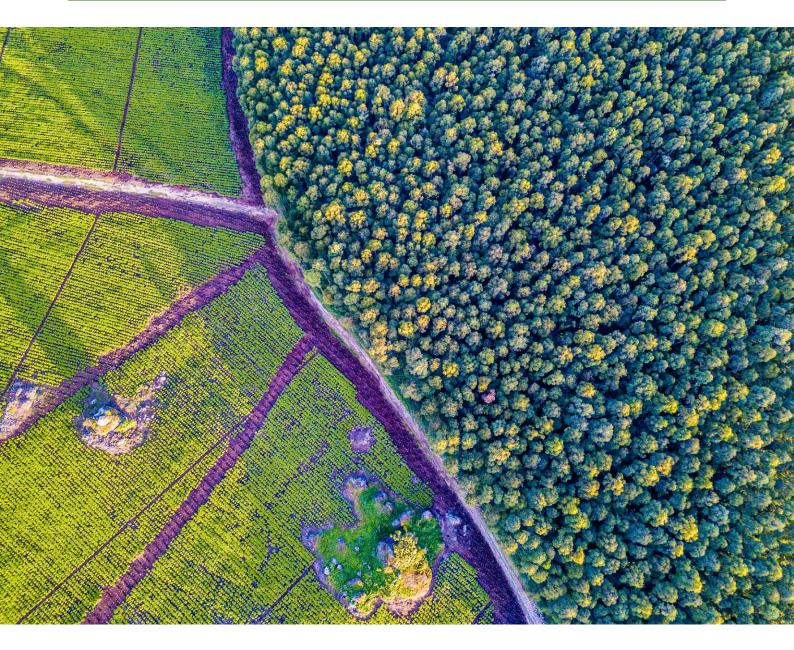
SCENARIOS 2 & 3 (UNDESIRABLE): FOREST MASSACRE / END OF THE ROAD FOR OUR FORESTS

In the undesirable scenarios (combined here due to high levels of similarity), a corrupt, inept and self-interested regime leads to dysfunctional partnerships between organizations and the exclusion of communities and other stakeholders from forest resource management and decision-making. The scenarios see:

- indigenous knowledge not being valued or managed effectively, leading to a loss of this information and of culturally- and ecologically-significant areas of forest such as the Kayas
- · an understaffed KFS unable to enforce forest laws or collaborate effectively with communities

• breakdown in relationships within communities, and between communities and governing bodies, as benefits are shared inequitably and don't take gender into account

As a result, forests are encroached upon and destroyed at increased rates, leading to a decrease in forest cover, loss of biodiversity and increase in poverty levels.



Action plan

Working in two groups, the participants created action plans to promote the actualization of the desirable scenario and avoid the undesirable ones. These were then combined into one plan, on which other stakeholders had the opportunity to comment at the feedback workshop on 15 February 2019.

Following discussion and integration of new material at the second workshop, the final plan was officially adopted, and is presented in Table 2 below. It features:

• strengthening forest management partnerships through capacity-building and improved frameworks

- developing a strategy for more equitable sharing of forest products and services through inventorying and policy-making
- enhancing the integration of indigenous and conventional knowledge in forest management with improved documentation, outreach and education, strengthening the rule of law in forestry management
- managing forest resources better, including restoring degraded areas through a massive tree-planting campaign.

Table 2. Final Action Plan

DRIVER	OBJECTIVE	ACTIVITIES	RESPONSIBILITY	TARGET GROUP	INDICATORS
Partnership in forest management	Develop strong & cohesive partnerships in forest management	Create awareness in line with existing policies & regulations	KFS, CFAs, Nature Kenya, KWS, NMK, Kenya Forestry Research Institute (KEFRI), Kilifi County (KC), Kenya Fisheries Service	KFS, CFAs, Nature Kenya, KWS, NMK, KEFRI, KC, local community groups, NGOs, private sector	Minutes of meetings held Number of participants Updated agreements
		Do gap analysis to establish shortcomings in existing frameworks.	KFS, CFAs, Nature Kenya, KWS, NMK, KEFRI, KC	KFS, CFAs, Nature Kenya, KWS, NMK, KEFRI, KC, local community groups, NGOs, private sector	Report on gap analysis
		Review & update CFA management plans & agreements	KFS, CFAs, Nature Kenya, KWS, NMK, KEFRI, KC	KFS, CFAs	Updated & reviewed management plans & agreements
		Build capacity with training & equipping CFAs to better manage forest resources & mitigate conflicts	KFS, CFAs, Nature Kenya, KWS, NMK, KEFRI, HoC, Kenya Fisheries Service	CFAs	Number of CFA people trained and equipped with skills
		Negotiate & prepare partnership agreement with relevant stakeholders	Development partners, KFS, CFAs, Nature Kenya, KWS, NMK, KEFRI, KC, Kenya Fisheries Service	Development partners, KFS, CFAs, Nature Kenya, KWS, NMK, KEFRI, KC	Functional agreement to guide partnership available
Mechanisms of benefit- sharing	Develop a strategy for equitable sharing of forest products and services	Review inventory of key forest products & services for cost- benefit sharing	KFS, CFAs, Nature Kenya, KWS, NMK, KEFRI	KFS, CFAs, Nature Kenya, KWS, NMK, KEFRI	Revised inventory of key forest products & services available
		Develop a policy on cost-benefit sharing	KFS,CFAs, Nature Kenya, KWS, NMK, KEFRI, KC	All stakeholders: KFS, CFAs, NatKenya, KWS, NMK, KEFRI, KC etc.	Policy document available and implemented
		Negotiate & agree on cost-benefit sharing	KFS, CFAs, Nature Kenya, KWS, NMK, KEFRI, KC	KFS, CFAs, Nature Kenya, KWS, NMK, KEFRI, KC	An agreement on cost- benefit sharing
Knowledge management	Enhance integration of indigenous & conventional knowledge in forest management	Research to document indigenous knowledge applicable in forest resource management	KFS, CFAs, Nature Kenya, KWS, NMK, KEFRI, Kenya Fisheries Service, media	KEFRI, learning institutions, youth, KWS, NMK	Documented indigenous knowledge & database for use
		Design/develop & implement a sensitization outreach program for indigenous knowledge	KFS, CFAs, Nature Kenya, KWS, NMK, KEFRI, KC, learning institutions, youth, Department of Social Services	KFS, CFAs, Nature Kenya, KWS, NMK, KEFRI, KC, learning institutions, youth, Department of Social Services, media	Implementation plan available; outreach program running in learning institutions
		Adopt use of applicable modern technology in management of information & forest resources	KFS, CFAs, Nature Kenya, KWS, NMK, KEFRI, KC, Kaya elders	KFS, CFAs, Nature Kenya, KWS, NMK, KEFRI, KC, learning institutions, youth, Department of Social Services, media	Availability of database platforms e.g. servers; Use of geographic information systems (GIS) & digital tools for mapping & management of knowledge & resource
Knowledge Management	Broaden and define knowledge system	Review of existing information system	KFS, KWS, CFAs, donor communities, community-based organizations (CBOs), civil society organizations (CSOs), National Environment Management Authority (NEMA), NMK	Community, CSOs, line ministries	Reviewed document, numbers reached

DRIVER	OBJECTIVE	ACTIVITIES	RESPONSIBILITY	TARGET GROUP	INDICATORS
		Promotion of indigenous technical knowledge (ITK) (Production of flyers, documentaries)	Kaya elders, KFS, NEMA, CSOs, KWS	Community, researchers, line ministries	Number of ICE materials available Documentation on ITK
		Research & database establishment	KEFRI, NMK, KEMFRI, Ministry of Environment and Natural Resources, KFS, KWS, Fisheries	KFS Management, community, CSOs	Existence of a database
	ITK integrated with conventional science	ITK integrated into curriculum	Kaya elders, KFS, NEMA, CSOs, KWS, Fisheries, community, Ministry of Education	Forest management teams (e.g. Arabuko, KFS), Community, CSOs	Documented integration of ITK into classical science
Policies /laws/ regulations implemented	Ensure rule of law in forestry management	Enforcement of existing legal instruments	KFS, KWS, KC, CFAs, police, administrators	Community, stakeholders	Number of arrests & reported cases
		Sensitization: outreach, school programs	KFS, KWS, KC, CFAs, administrators, CSOs, CBOs	Community, stakeholders, learning institutions	Number of people sensitized and of meetings
		Establish benefit-sharing mechanism	Community, CSOs, KFS	Community, CFAs	Documented benefit- sharing mechanism
	Define role of different players	Training of stakeholders	KFS, KWS, KC	Stakeholders	Number of stakeholders trained
		Staff training	Carry out refresher training on enforcement of policy	KFS, KWS, relevant stakeholders	Numbers of trainings & staff trained
		Build partnerships	KFS, KWS, KC, local administration, line ministries	Community, stakeholders, learning institutions	Number of partnerships formed
	Awareness- creation	Capacity-building	KFS, KWS, KC, local administration, line ministries	Community, stakeholders, learning institutions	Number of people, Number of people sensitized
	Policy review	Review existing policies to ensure they address stakeholders	KFS, KWS, KC	Communities, line ministries, national government, counties, NGOs, CBOs, opinion leaders, donors	The reviewed policy document
Management of forest resources	Sustainably- managed forests	Make a resource inventory/ monitoring	KFS, KWS, KC, NMK	Both gazetted and non-gazetted forests	Report on the forest status
		Delimitation of boundaries	KFS, KWS, KC, NMK, community	Both gazetted and non-gazetted forests	Gazetted maps Acreage defined
		Develop/review management plans	KFS, KWS, KC, NMK, community	Line ministries, stakeholders	Existence of a new/ reviewed management plan
		Procure necessary equipment	KFS, KWS, donor community	Management	Inventory of equipment
	Have an ecologically- functioning forest resource	Massive campaign of tree planting to restore degraded forests	KFS, KWS, CFS, donor communities, CBOs, CSOs,	Forests, Management, stakeholders	Biodiversity index

Conclusion

The PPA methodology proved successful in bringing stakeholders together to discuss FTS in Kilifi County. It brought together actors from government, NGOs, the private sector, community members organized in CFAs, and customary leaders.

The participants identified 32 forces of change of forest tenure security. From those, five driving forces were identified: namely, developing partnerships in forest management; improving the mechanisms of benefit sharing, implementation of policies, management

of forest resources, and knowledge management. Importantly, the process revealed that while clear policies to enhance improved FTS were already in place in the area, many of these were poorly implemented or not put into practice at all.

The driving forces were developed into three scenarios, one desirable and two undesirable. Looking into these possible futures gave participants valuable insights into how to develop actions to mitigate negative outcomes and promote positive ones. From this, they developed an action plan, which was the main output of the process.

Recommendations

While women's representation was fair within the workshops, the issue of gender did not feature in the scenarios or actions. This may be because in mixed-gender groups in the region, male participants are often dominant in conversations and women are less likely to speak up about gendered concerns. It is therefore recommended that in order to capture gendered concerns, a women-only PPA should be organized.

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