



**THE 'WATER TOWERS' OF EAST AFRICA: POLICIES AND PRACTICES FOR  
ENHANCING CO-BENEFITS FROM JOINT FOREST AND WATER  
CONSERVATION**

**Proceedings of the National Launch**

**CIFOR Nairobi Hub**

**May 30, 2017**



**Lancaster  
University**



the  
green belt  
movement



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## ACRONYMS

CFA	Community Forest Association
CIFOR	Center for International Forestry Research
FMA	Forest Management Agreement
IDH	Sustainable Trade Initiative
KEFRI	Kenya Forestry Research Institute
KFS	Kenya Forest Service
KFWG	Kenya Forest Working Group
KWTA	Kenya Water Towers Agency
NACOFA	National Alliance of Community Forest Association
PAC	Project Advisory Committee
PFMP	Participatory Forest Management Plan
SCMP	Sub Catchment Management Plan
USFS-IP	United States Forest Service (International Programs)
WRMA	Water Resources Management Authority
WRUA	Water Resources User Association

## **National Launch of the Water Towers project**

The Center for International Forestry Research (CIFOR) and its partners will be implementing a 3 year project entitled- The 'Water Towers' of East Africa: Policies and practices for enhancing co-benefits from joint forest and water conservation. The project aims to strengthen local forest and water resource governance regimes to enable equitable management of linked forest and water systems and to minimize forest degradation in the Mau and Mt. Elgon forests in Kenya and Uganda.

The national launch of the project was held on May 30, 2017 at CIFOR Nairobi Hub. The partners represented in the workshop included the Kenya government through the Ministry of Environment and Natural Resources, National Alliance for Community Forest Associations (NACOFA), Kenya Forest Service (KFS), Initiative for Sustainable Management (IDH), GIZ water program, and Kenya Water Towers Agency (KWTA).

The purpose of the meeting was to introduce the water towers project and situate it within the broader Water Towers initiatives in Kenya, and to explore opportunities for further cooperation and synergy building across the Water Towers initiative in Kenya. The launch followed the inception workshops which were held in the Mau and Mt. Elgon sites in Kenya. The key outcome of the two workshops was the recognition among stakeholders of the need for a joint approach to management of forests and water.

## INTRODUCTION

### **Welcome Remarks and Introduction**

#### **Dr. Esther Mwangi, CIFOR Principal Scientist and Water Towers Project Leader**

Esther welcomed participants and introduced the purpose of the workshop, which is to learn the initiatives of different partners in the water towers of Mt. Elgon and the Mau. This will enhance sharing of information and also promote synergy, and create a pathway for engagement. The agenda for the day was then highlighted followed by self-introduction of participants.

### **Welcome Remarks from Robert Nasi, CIFOR Deputy Director General, Research**

Dr. Nasi highlighted the importance of the linkage between land use, water, livelihoods and ecosystem services as key aspects that cut across CIFOR research themes. The six themes are Forests and Human Well Being; Sustainable Landscapes and Food; Equal Opportunities, Gender, Justice, and Tenure; Value Chains, Finance and Investments; and Forest Management and Restoration. These linkages are of global importance as they influence decision made between forest conservation and development projects. The water towers project is important because it links the biophysical aspects with socio ecological context. He expressed his optimism that the partners will work together towards the success of the project.

### **Opening remarks from Mr. Gideon Gathaara- Director, Forest Conservation, Ministry of Environment and Natural Resources**

Mr Gathaara appreciated the diversity of stakeholders present in the meeting, which included the academia, research, community representatives, government agencies, and donor representatives. He acknowledged the ongoing coordination efforts by these institutions in the forestry sector through the Forest issues group. Forest ecosystems provide the foundation of socioeconomic systems of many country, including the production and service sectors. He recognized the categories of various ecosystems, such coastal, drylands, riverine, mountain, and the need to appreciate the services provided such as regulation of water flows. Management of these resources will contribute to improved livelihoods in Kenya, and also helps to mitigate against conflicts related to natural resource and also drought. Therefore, the water towers project and other programs in the state department of natural resources contributes towards addressing these challenges.

The Ministry of Environment and Natural Resources has a framework for establishing partnerships, and has a memorandum of understanding with CIFOR. Knowledge information and skills are key to enhance innovations in managing the natural resources. Therefore, the challenge is to determine what linkages should be promoted. For success in the water towers, we need to mobilize the key stakeholders and all ventures needed, including linkages between the national and county government. Mr. Gathaara underscored the need for a forum for dialogue that is dynamic, and which can be anchored within the National Forestry Programme which was

launched in March, 2017. Water towers are also important as habitats and therefore a National Wildlife Conservation and Management strategy is also under preparation. The strategy can also provide an entry point for the project and other initiatives in the water towers. In addition, the ministry is also preparing the Medium term plan 3 for Kenya, which has aspects that the current project fits in. These include the achievement of the 10% tree cover and securing conservation areas. The forest landscape approach is being applied in the water programme. The CIFOR project can enrich the components led by KEFRI from a research point of view on how information is collected. Gideon expressed the Ministry's interest to work with CIFOR on available options that can be pursued on issues concerning the indigenous people, and preparing an investment plan together with indigenous people to promote conservation for livelihood improvement.

In conclusion, he urged the partners to work together and optimize on their potentials towards conserving the water towers as provided by the Forest policies which provide several opportunities.

#### **Remarks from Mr. Emilio Mugo, Chief Conservator of Forests, Kenya Forest Service (KFS)**

Mr. Mugo expressed his appreciation to the partners present, and recognized the engagement and their contribution in the CIFOR project, which is contributing to the ongoing work by KFS in the Mau and Cheranganyi areas. He recognized the need for being aware of the opportunities and risks involved when there are many players in project implementation. Despite the risks, the partners should view themselves as stakeholders with an important contribution to make in the project. By launching this project, the partners are bringing in both individual and institutional interests, which will contribute to developing synergy. There is a recognition that forests are central to peoples' livelihoods. As a result, various linkages of forests to energy, livelihood, food security, nutrition among other aspects have been highlighted globally. Therefore, it is critical to develop synergy towards addressing people's livelihoods and linking their livelihood to forests. In conclusion, Emilio called upon the project partners to show their commitment towards achieving the objectives agreed upon in the project sites.

#### **Remarks from Dr. Paul Ongugo, Kenya Forestry Research Institute (KEFRI)**

Dr. Paul represented the KEFRI director, Dr. Ben Chikamai in the workshop. On behalf of the Director, he recognized the value of the forum, as an important avenue for engagement among the partners. KEFRI has a Memorandum of understanding with CIFOR, and therefore a good working relationship has existed between the two institutions. Various initiatives in the water towers have been implemented, hence it is important to focus on developing synergies with CIFOR bringing in an international perspective from the research activities implemented in South East Asia, Central Africa, and currently in Kenya. In conclusion, Paul reiterated that research

should inform decisions, and echoed that it is the little aspects and activities we do that will contribute towards the larger goal.

#### **Remarks from Dr. Winnie Musila, Kenya Water Towers Agency (KwTA)**

Dr. Musila highlighted about the KwTA, which is four years old. The agency' a mission to sustainably manage the water towers and their ecosystems and to ensure that communities living in the water towers benefit and reduce pressure on forests. The need for collaboration was also emphasized because no single institution can work alone. She urged the partners to work together for the benefit of the country and the environment.

### **THE WATER TOWERS PROJECT OVERVIEW**

#### **CIFOR Principal Scientist and Project Leader, Dr. Esther Mwangi**

Esther alluded to the proposal development process and acknowledged the contribution of the partners in the process, especially the supporting letters and feedback provided in response to the donor comments. She provided the progress so far, especially the conclusion of the project inception workshops for the sites in Kenya. She then provided the background, rationale, outputs and planned activities. Esther made reference to the current pressure on ecosystems, which has necessitated governments, communities and other institutions to initiated activities and programs to address these ecosystem pressures.

Previous CIFOR work in Mau, showed a linkages between land use, forest condition and water quality and quantity. Informed by these results, there was a need to examine the governance aspects of the forest-water systems. The question was: To what extent does governance of these resources match with the condition of these resources. The current project will therefore address this gap by seeking to understand the interactions at the community levels between institutions for water management and those involved in forest management. The project sites will be based on two ecosystems; the Mau (Itare and Londiani), where there is an established linkage between forest-water, and Mt. Elgon (Cheptais forest, Kimothon and Sosio/saboti), which is important for cross-border perspectives.

The project is multidisciplinary. Its main purpose is to examine what are the institutional strategies and options for joint forest and water governance in the sites. The aims include to generate evidence to support policy and practices and generate options in management of forests and water as linked systems. Also to strengthen capacities at local level of Community Forest Associations (CFAs) and Water Resources User Associations (WRUAs), the main beneficiaries of the project. The project adopts a holistic approach and uses a framework which links the biophysical elements and social aspects. Important questions that the project will

examine include: How does governance at the local level affect the resource conditions? And how can we ensure that the institutional linkages in the forest and water systems are maintained?

The entry point for site selection was the forest. The sites selected were areas with Forest Management plans and Forest Management Agreements (FMAs), which provide a legal basis for co-management of forest resources with communities. The approach will also use forest degradation maps as a basis for further exploration, looking at areas where degradation has increased, decreased, or remained the same, and examining what are the governance regimes in these areas.

The project has three work packages. These are: vulnerability analysis and exploration of measures to conserve forest and water; Analysis of institutions for the governance of forest and water resources; and Capacity strengthening, outreach and dissemination of research findings. There are various activities under the work packages, which will involve community engagement as citizen scientists, feedback workshops with communities and county governments and research with universities. Through the project, existing partnerships will be strengthened and new partnerships developed. The partners will have various roles, including supporting capacity development, convening Project Advisory Committee (PAC) meetings, and building on joint activities. Communities through CFAs and RUAs will be engaged in the research process and also represented in the PAC.

In conclusion, Esther highlighted the project structure. The PAC will be an important structure which will play a role in providing direction to the project and reviewing the outputs. The PAC will include representation from the partners and communities in the sites.

## Comments

- It is a good aspect that the value of the project has been stated clearly in the goal of the project. The key aspect being innovation. Being innovative can also include a possibility of a study in the sites of the potential for investment in mini hydro stations. This will especially benefit the women.
- The role of universities is also important. They are represented in the PAC.
- Is there a possibility of creating a catalogue on the work in the Water towers?

This is possible if partners can share what has already been done and collating the information to identify the gaps. Probably KFS, KEFRI or the Ministry of Environment and Natural Resources could take a lead.

- Inclusion of Kaberua site in Mt. Elgon: Areas with management plans and management agreements were used as a basis for site selection. There was a suggestion to have a socio psychological study to determine why the communities in Kaberua are not actively involved.

### **Forest-water monitoring in Mau forest**

**-Professor Mariana Rufino, Lancaster University and CIFOR Associate Scientist**

Mariana presented on the forest monitoring work in the Mau. What has been done so far and the next steps. The initial project in Mau aimed to quantify the value of the forest. In the new project, evidence will be gathered to show the trends of change of forest and relate it to the water supply, and determine the drivers and the impact of forest cover change, combine the existing data on water quality and volume. The aim is to develop simple and low cost indicators of ecosystem health that local institutions can use.

The project areas were selected based on availability of a combination of land uses to enable estimation of the value of the forest and linking to the water supply. The Sondu basin, which was selected consists of different land uses which are smallholder farmers, commercial tea plantations and an extensive natural forest. Therefore, the area provided the right combination to quantify the effect of the forest on water supply. In Mount Elgon, the project will be looking at the area with the right combination to determine the impact and value of the forest to water supply.

The results of the analysis in the Mau were shown. Analysis showed that the main driver of forest loss was smallholder agriculture with alarming rates in the 1980s. In terms of forest cover, the forest seemed to be recovering. However, there were existing drivers of deforestation, with hotspots in the forest. The results further showed that the main drivers include grazing, charcoal production, which affects regeneration of the forest. In the project, the combining of forest health and water quality was analysed. The results of water monitoring showed that the highest sediments in the water from smallholder agriculture, and low in the water from the natural forest. The results of monitoring nitrates in the individual rivers showed that water from tea plantations had the highest concentration of nitrates compared to the smallholder catchment and the forest.

The Citizen Science approach has been used in partnership with Water Resources Management Authority (WRMA). Monitoring stations were installed and citizens were involved to collect monitoring data and send through a mobile phone to a server. The results from the monitoring stations were compared to automated stations, and the results showed that citizens are able to collect quality data. However, there were challenges with participation and this would be addressed in the new project. Other challenges include the quality of the gauges, which were locally produced and could not withstand the stream conditions. Low motivation of participants is also an aspect that will be examined in the current project. The question is, what motivation is needed for citizens to engage actively to monitor water, and what the value of collecting water data is. Also will citizens use the data that is collected? The focus currently is increasing the validation data with the help of small devices installed close to the monitoring stations to test the quality. A team of students is also developing a method to monitor water quality. Alternative methods for collecting water quality will be tested. The monitoring data will then be combined with the forest health to make it useful for management. Finally the emerging lessons will be transferred to Mt. Elgon site.

## **Comments and Questions**

### ***How were participants selected?***

Participation was on voluntary basis, after the approach was explained to the members who were mainly WRUA members.

### ***Plans for data sharing***

Discussions are ongoing with WRMA and the partners including the private sector to have an open data platform to have a possibility of data sharing. It is important to consider this aspect because it can also motivate local people to participate in data collection. There are also plans to test methods for forest monitoring, and it would also be wise to consider how forest monitoring data could be available.

Are the tea plantations aware of the levels and are they willing to contribute to mitigate the effects? Yes, they are aware, however, the levels are not a risk from the human perspective.

There is a planned programme by KFS on forest monitoring in Cheranganyi and Mt. Elgon. Mariana will follow up with KFS on this program.

### ***Involvement of the WRUAs***

The entry point for the current project was the CFAs with involvement of the WRUAs around these CFAs.

## PRESENTATIONS FROM NATIONAL PARTNERS ON WATER TOWERS INITIATIVES

The presentations by partners highlighted ongoing initiatives in the water towers the achievements by these initiatives and opportunities that can be explored for joint forest and water management.

### **Ministry of Environment and Natural Resources**

#### **-Mrs. Wanjiku Manyata**

Mrs. Manyata focused on the Ministry of Environment and Natural Resources initiative on the Water Towers Protection and Climate Change Mitigation and Adaptation Programme. The five year programme, which is under the State department of natural resources, is one of the flagship projects of the Vision 2030. The programme was included as a flagship project in recognition that water towers are vital assets, which support socioeconomic development in Kenya. Further, the threats posed by the degradation of the forest and climate change effects also informed the development of the programme.

The target areas are Cheranganyi and Mt. Elgon ecosystem, covering a total of 11 Counties. The overall objective is to support Kenya to eradicate poverty through enhancing productivity, and enhancing resilience to climate change. The purpose is to improve the quality and quantity of the ecosystem services provided by the water towers. The project aspires to increase the benefits to the community from the forest, agriculture and land use systems in the two ecosystems.

The Ministry is the overall coordinator, while other agencies are involved in implementation. Kenya Forestry Research Institute (KEFRI) will provide the science to inform the overall design of community level actions and policy decisions. Kenya Forest Service (KFS) is leading the implementation of the Results area 2, with the Kenya Water Towers Agency (KWTA) and Kenya Wildlife Service (KWS). The Counties will be involved directly under the project Results area 2 to mobilize communities to propose projects for restoration and developing alternative sources of livelihood to reduce overuse of the forest.

### **Kenya Forestry Research Institute (KEFRI)**

#### **-Dr. Paul Ongugo**

Dr. Ongugo presented the project Results area 4 under the Water Towers Protection and Climate Change Mitigation and Adaptation Programme. This Result area, being implemented by KEFRI, focuses on science to inform design of community-level actions and policy decisions. Actions at

the local level have often been taken without the involvement of scientific principles. For instance selection of tree seedlings without considering climatic parameters. The overall objective of the component is to contribute to poverty reduction and sustainable livelihoods by applying scientific principles to inform the design of community level actions and national policy decisions on rehabilitation and conservation in Cheranganyi and Mt. Elgon water towers. The seven specific objectives under this results area component were highlighted. The biophysical status in objective 1 will not only consider the forests, but the entire landscape because there are no major forests in some Counties within the project sites. Objective 2 will provide answers on, how can communities engage in conservation. Hence valuation of ecosystem services will be key, leading to the development of business models which investors can implement.

Previous work on rehabilitation approaches done by KEFRI in the Mau will be adopted and used in the Cheranganyi site in objective 3. Objective 4 will examine how communities can be engaged in bamboo production. In objective 5, communities will be engaged through initiating income generating activities that can reduce pressure on forests. Development of communication and knowledge management strategies and monitoring and evaluation are the focus of objectives 6 and 7 respectively. So far, land use systems have been analysed and hotspot areas identified in the forest. This will be expanded to cover areas outside the forest. Communities have been involved in generating the maps. The status of biodiversity in the two areas has also been completed. These include the listing of invasive species, vertebrate and invertebrate animal inventory. Capacity assessment for communities to be engaged in bamboo is also complete. The project is in the process of setting up a website, which will be complete by June this year. Emerging lessons from the sites show that community involvement is key, going beyond the CFAs and involving other members. Further, there are aspects that need to be considered in implementing community initiatives. These include changing lifestyles, exposure to new technologies, values, culture and traditional governance structures.

### **Kenya Forest Service (KFS)**

**-Mr. David Chege**

Mr. Chege highlighted KFS work under component 2 of the Water Towers Protection and Climate Change Mitigation and Adaptation Programme. The component focuses on improving the quality and quantity of ecosystem services. The objective is to improve the quality and quantity of ecosystem services of two water towers through the formulation of integrated management plans and implementation of the climate change mitigation and adaptation plan in the landscape. The activities under this component will involve landscape management through harmonized development planning, involving different sectors. Other activities will include rehabilitation to be undertaken in protected and unprotected areas, upscaling activities in the Counties,

ecotourism through park infrastructure, mainstreaming climate change issues in the County plans, and applying green growth practices such as efficient energy resources and growing plantations. The project will also influence curriculum development in schools to influence the youth to develop practices that are compatible with green growth. These include practices in waste management. The expected impacts of this project component include strengthened capacity of implementing institutions to effectively deliver services; sustained provision of ecosystem goods and services in the landscape; improved landscape productivity and household incomes; increased private sector participation in natural resource management and enhanced human-nature interaction. The communities (CFAs and WRUAs) are the target beneficiaries.

**Kenya Water Towers Agency (KWTA)**  
**-Dr. Winnie Musila**

Dr. Musila presented the mandate, activities, outcomes and emerging issues from the work being undertaken by KWTA. The work is not only concentrated on forest areas, but also in the whole landscape. The mission of KWTA is to sustainably manage water towers and their ecosystems through coordination and conservation for socioeconomic development. The agency is mandated to coordinate and oversee rehabilitation, conservation and sustainable management of the 18 water towers in the country. The strategic objectives that guide the KWTA are to coordinate Water Towers ecosystem health and resilience; coordinate and oversee securing of catchment lands, wetlands, and critical biodiversity hotspots within the water towers; to promote sustainable livelihoods support programmes within the water towers; and to establish strategic partnerships and linkages for sustainable management of water towers. The agency recognizes the presence of different actors in the water towers.

On activities, the agency undertakes the water towers resource assessment and targets to have an ecological monitoring framework and programme, which will involve communities. Other activities include economic valuation and development of specific water towers ecosystem strategic management plans. These activities are done in partnership with other stakeholders. A major outcome of these activities is the development of the Kenya Water Towers Status report. This year the status report will cover 6 water towers, which will cover environmental, socio-economic, policy and institutional components. Another outcome is the development of strategic management plans, such as in Taita Hills, which shows the drivers of degradation and specific interventions that need to be taken to reverse degradation. The agency does not fully implement the plan, but brings in other partners such as the county government to implement identified activities. Other activities include promotion of bamboo enterprise as an alternative livelihood source in areas such as Nyeri County, and development of community action plans. In conclusion, she highlighted that collaboration is key in restoring the water towers and promoting socio

economic development, given that there are different actors in the water towers. Other important aspects include identification of a good mix of actors and community participation.

### **United States Forest Service (International Programs) -USFS-IP -Mr. Alphonse Guzha**

Mr. Guzha presented the Kenya Water Towers Climate Change Resilience Programme, which is being implemented by the United States Forest Service (International Programs). The goal of the programme focuses on strategic planning for sustainable management of the water towers. The program, through the use of science addresses how strategies for sustainable development of ecosystems be developed. This in the light of earlier presentation, which showed that decisions have sometimes been taken without the use of scientific principles. The programme is being implemented in the Mau, Cheranganyi and Mt. Elgon sites. Deliverables include climate change vulnerability assessment (CCVA) in line with the recommendation from the Kenya's Climate Change Adaptation Plan. This provides an understanding on how ecosystems respond in the light of climate change, and it uses the exposure-sensitivity approach.

Another component, which is implemented by KEFRI, is the Ecosystems services valuation, which is anchored in the National Forestry Programme. These two components provide the science to guide the implementation of rehabilitation activities. An ecological monitoring framework is also being developed to guide monitoring of ecological and socio- economic programmes. The framework is uses the state-pressure-response approach, and has five thematic areas. These are climate change, water resources, forests, biodiversity and livelihoods. The ultimate goal is to develop a strategy for management of the water towers, and a plan that is informed by science. Currently, there is ongoing work on the climate change vulnerability assessment and data is expected to be available by the end of July. The work on ecosystem services valuation will develop recommendations that Counties can utilize. The next steps will include using the monitoring framework to guide information gathering to assess status and design of intervention strategies. There is an opportunity for collaboration in the CIFOR Project. One area of collaboration is monitoring, with a focus on institutional requirements for successful monitoring.

### **Sustainable Trade Initiative (IDH) Landscape Programme -Mrs. Winnie Mwaniki**

Mrs. Mwaniki provided the background and an overview of the Landscape Programme in Kenya. The programme traditionally had an agro commodity programme, but later came up with a landscape approach. The initiative's main role is to convene partners with an interest in the landscape approach. Other activities include cofounding and capturing and sharing lessons with communities. Activities also focus beyond the forest areas, to include communities in the catchment and in the tea zone in the Mau. The initiative is committed to restore and conserve

60000 ha of the South Western Mau forest by 2013. The activities focus on three thematic areas in the landscape, which are forest conservation, water conservation and energy, with integration of livelihoods. There is a governance structure, with various partners including the private sector, government agencies and the counties. There is a technical working group and IDH forms the secretariat. GIZ is leading the work on water aspects. There are various challenges in managing forests, which are being addressed with stakeholders through the thematic areas. Up to 200 ha of forests have been rehabilitated with involvement of CFAs. Aerial surveillance is also conducted to determine the issues collectively and support authorities to support the authorities. One area for further exploration is the use of geothermal energy as a potential to drying tea to reduce pressure on biomass and the forests. One of the emerging issues going forward is to consider livestock intensification with communities.

### **GIZ International Water Stewardship Programme (IWaSP)**

**-Mrs. Anne Marie**

Mrs. Marie presented the Water Stewardship Programme by GIZ. Kenya is one of the seven countries in Africa where the program is implemented. The programme uses a landscape approach to bring partners together, both public, private and the civil society to facilitate discussions on water issues and developing a common agreement. The programme is being implemented in two river basins. These are Sondu and Turkwel basins. The main activities in the Sondu basin include improved water resources monitoring and regulation; WRUAs and communities support capacity building and improved access to water; and support multi-stakeholder Sondu water forum. The programme has technical advisors at WRMA sub-region office in Kericho and Kapenguria. Activities in Turkwel river basin the activities include improved hydro-meteorological monitoring system; water resource mapping and capacity building of WRUAs. Tallow oil is a partner in the programme, and the County of West pokot.

A WRUA capacity Assessment Tool has been developed together with partners, which has nine indicators. The tool enables WRUAs assess themselves on their maturity status, which can inform a tailor made capacity development for the WRUAs. Furthermore, three training modules have been developed on good governance, lobby and advocacy and communication. About 35 Community development officers from WRMA have been trained on the use of these tools. The programme has involved all the 15 WRUAs in the Sondu catchment. There are emerging issues that need consideration. These are harmonization of WRUA Sub Catchment Management Plans and Participatory Forest Management Plans for CFAs; harmonization of capacity building initiatives; data sharing between KFS and WRMA; and KFS and WRMA staff supporting both WRUAs and CFAs.

**University of Kabianga**  
**-Dr. Joseph Hitimana**

Dr. Hitimana, the Dean School of Natural Resources and Environmental Management at Kabianga University presented an overview of the research activities done by the university and in the project sites. The university, which was chartered in 2013, offers training to both undergraduate and post graduate levels. The niche of the university has been identified as Natural Resources and Environment Management. Other schools have also included environmental management aspects. There is an agroforestry programme, which is aimed to bring solutions to the gaps outside the forest, including land use management, sustainable agriculture. Dr Hitimana suggested the need to integrate outreach and sensitization to students up to the tertiary levels to increase environmental awareness. A second important programme in the university is in Forestry, with students' research conducted in the Mau. The institution therefore has the capacity to contribute to the water towers initiative in the Mau. In conclusion, Dr. Hitimana expressed his willingness to collaborate with the partners to support students' research.

**Emerging issues from the stakeholder engagement in Nakuru and Eldoret**  
**-Mr. Gerald Ngatia, NACOFA**

Mr. Ngatia, the chairperson of National Alliance of Community Forest Association (NACOFA) presented the issues from the inception workshops held in Mau and Mt. Elgon and the key functions of the association. NACOFA acts as the link between community forest associations (CFAs), the government and other stakeholders. The main functions include advocating for community recognition as stakeholders and beneficiaries of forest ecosystems; assisting member associations in developing forest management plans; capacity development of member associations on policy issues; and lobbying for sustainable forest utilization and management. NACOFA will represent communities and CFAs in the project through representation in the Project Advisory Committee (PAC).

Several issues emerged from the two inception workshops. One of these was partnership in resources management at the community level and implementing partners. Secondly, different approaches in utilization of natural resources and management of the catchment by various government organizations. There are gaps in local level governance of natural resources with between the CFAs and WRUAs in planning and implementing joint forest and water management initiatives. Additionally, the two associations have different views in utilization and management of forest and water resources. There is also a need to review the WRUA SCMPs and CFA PFMPs. For Kipchorian and chembombai WRUA, the SCMPs needs review, whereas the Itare Chemosit WRUA needs a new SCMP. The plans for the four CFAs in the project sites (Kimothon, Cheptais, Londiani and Itare) expire this year and need to be reviewed. Another emerging issue was lack of participation and decision making on resource use by women.

Stakeholders suggested ways to ensure joint forest and water management is achieved. These include bridging the CFA and WRUA gap through joint activities in forest and water in the Sub Catchment Management Plan (SCMPs) and Participatory Forest Management Plans PFMPs. Capacity development of these community associations is needed to enhance joint resource management. Going forward, there is a need for collaboration among key partners in the development and reviewing of the SCMP and PFMPs and the need to increase women's participation in decision making in forest and water management.

## SUGGESTIONS ON AREAS OF COLLABORATION

In conclusion, several opportunities for cooperation were identified. One of the areas of discussion and agreement was the needs to have a dialogue forum on issues in the water towers. The following were other key areas identified as opportunities for collaboration.

- Synergies to existing tools: Synergies can be developed building on the monitoring framework being implemented by the USAID programme. CIFOR can contribute on monitoring governance. WRMA, KFS and GIZ programs also have also developed monitoring modules. These include Needs Assessment Module by WRMA, and the Community Assessment module by KFS, which the current project will contribute to its review.
- Review of plans: one of the issues from the inception workshop is to review the WRUA SCMPs, which are expiring, and develop a new SCMP. The PFMPs for the CFAs are also expiring and need review. Discussions are ongoing on the review and development of the plans.
- Payment for Ecosystem (PES) Model: KEFRI is working on PES as a business model, which investors can adopt.
- A platform for information exchange and bringing different partners is needed.
- Challenges have been experienced in some areas, where communities feel that they are not part of the initiatives being implemented. The question is: How can communities be integrated in these initiatives?
- Research: Data needs to be shared with communities and policy makers to inform decisions.
- Need to think about the sustainability aspects, for instance on the monitoring frameworks.

- Assessing the effectiveness of operations of community associations (CFAs, WRUAs). Further, the need to analyse how the evolution of CBOs and whether they are serving the purpose for which they were formed.
- Communication strategy: one of the suggestions was the need to profile the community (CFAs, WRUAs), and develop a communication strategy that will benefit the members. One way of sharing information is through short courses in schools.
- What ways can be used to review and reconcile policies, especially the conflicting aspects?
- Capacity building: Different institutions have modules on capacity development. The institutions can share their capacity building schedules and could be engaged on different topics depending on their strengths in the topic. Furthermore, capacity building should be needs based.
- A platform which can capture what other institutions are doing in the water towers is needed on which other initiatives in the water towers can build on. KFS is better placed to keep a database for initiatives in the water towers, and other institutions need to offer their support towards this initiative.
- Approaches in the water towers: Different institutions working in the water towers have different approaches. Local KFS officers and partners could play an active role in keeping track of what initiatives have been implemented in their respective areas of operation. This information would better inform new projects that are implemented in these areas.
- One of the starting point for the proposed dialogue forum can be though the existing structure in the USAID program. The ministry of Environment and Natural Resources can also provide suggestions on how to develop the dialogue forum.

## ANNEXES

### Annex 1 Agenda

Purpose:

1. To introduce CIFORs water towers project and situate it within the broader Water Towers initiative in Kenya
2. Explore opportunities for further cooperation and synergy building across the Water Towers initiative in Kenya

Time	Activity	Responsible
9:00-9:30 am	Arrival and Introduction	Dr. Esther Mwangi
9:30-9:40 am	Welcome Remarks by CIFOR Deputy Director General, Research	Dr. Robert Nasi, CIFOR
9:40-10:00 am	Opening remarks by Director, Forest Conservation, Ministry of Environment and Natural Resources	Gideon Gathara (Ministry of Environment and Natural Resources)
10:00-10:30 am	The Water Towers project-overview	Dr. Esther Mwangi
10.30-11:00 am	<i>Break</i>	
11:00-11:15 am	Feedback from project inception workshops: <ul style="list-style-type: none"> <li>• Emerging issues from the stakeholder engagement in Nakuru and Eldoret</li> </ul>	NACOFA
11:15-12:30 pm	CIFOR Forest-water monitoring in Mau forest (10 minutes)  Presentations from national partners (10 minutes each) To include: <ul style="list-style-type: none"> <li>• Interventions in the water towers</li> <li>• Perspectives on what needs to be done to ensure integration</li> </ul>	Prof. Mariana Rufino <ul style="list-style-type: none"> <li>• KEFRI</li> <li>• KFS</li> <li>• WRMA</li> <li>• KWTA</li> <li>• USFS</li> <li>• ISLA</li> <li>• GIZ</li> </ul>
12:30-1:15 pm	Way Forward: Remarks by agency directors on synergy building	
	Closing remarks & lunch at Bamboo Hut	

## Annex 2: Participants list

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