



Mitigate+: Research  
for Low-Emission  
Food Systems

# Forest status and forestry stakeholder analysis for low-emission food systems in Nandi, Kenya

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Working Paper 25

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DOI: 10.17528/cifor-icraf/009058

Mutune JM, Pham TT, Nguyen DT, Tran NMH, Nguyen TVA, Nguyen TTA, Nguyen TS, Nguyen DYK, Duba D, Odhiambo E and Kahuha F. 2023. *Forest status and forestry stakeholder analysis for low-emission food systems in Nandi, Kenya*. Working Paper 25. Bogor, Indonesia: CIFOR and Nairobi, Kenya: ICRAF.

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# Abbreviations

ADS	Anglican Development Services
CGIAR	Consultative Group on International Agricultural Research
CFAs	Community forest associations
FAO	Food and Agriculture Organization of the United Nations
FOODCLIP	Food Systems Climate Intervention Planning
GHGs	Greenhouse gas emissions
KES	Kenyan shillings
LULUCF	Land use, land-use change and forestry
MEFCC	Ministry of Environment, Forestry and Climate Change
NEMA	National Environmental Management Authority
NDC	Nationally Determined Contribution
REDD+	Reducing emissions from deforestation and forest degradation
SDGs	Sustainable development goals
WP	Work package
WRUAs	Water resource user associations

# Acknowledgments

This work was conducted as part of the CGIAR Research Initiative on Low-Emission Food Systems and is supported by contributors to the CGIAR Trust Fund. CGIAR is a global research partnership for a food-secure future. CGIAR science is dedicated to transforming food, land and water systems in a climate crisis. Its research is carried out by 13 CGIAR Centres/Alliances in close collaboration with hundreds of partners, including national and regional research institutes, civil society organizations, academia, development organizations and the private sector. We would like to thank all those supporting this research through their contributions to the CGIAR Trust Fund.

We would like to express our special thanks to Birgit Habermann, Dibo Duba, Walter Kibet and Elmah Odhiambo for supporting our data collection and providing invaluable comments in helping us improve our report. Special thanks also go out to Peter Minang for providing technical support at the inception of this work.

We are indebted to county government officials, particularly those under the Ministry of Environment, Forestry and Climate Change and the National Environment Management Authority (NEMA); and to non-state stakeholders, particularly Anglican Development Services, the International Crane Foundation and FAO; as well as the community forest associations and water resource user association for providing valuable comments and input for this report.



# Executive Summary

This report provides an overview and profile of the forestry sector and stakeholders in Nandi County, Kenya, and how they can contribute to low-emission food systems in the region. The report also presents Nandi forestry stakeholders' views on challenges to, and opportunities for forestry-based mitigation options.

Our findings show forests and their biodiversity playing important roles in providing food, incomes and medicines for local people in Nandi County. However, the county's forests have been lost and/or degraded as a result of illegal logging, agriculture expansion, weak forest governance (insecure land tenure and conflicting forestry laws and policies), population growth and growing demand for fuelwood, timber and non-timber forest products.

To mitigate climate change and address deforestation, Nandi County Government aims to increase forest cover through agroforestry and the afforestation and restoration of degraded forest areas. Government agencies, international organizations and community-based organizations have also strived to support projects and activities involving biodiversity conservation, poverty alleviation, improved forest governance, community-based forest management and carbon markets. During our study, key informants and participants in focus group discussions considered forest restoration and carbon markets to be the mitigation options with the greatest potential.

Most stakeholders agreed that forest restoration in Nandi has led to improved forest governance and is a practical option for reducing greenhouse gas emissions. Ninety percent of interviewed stakeholders also considered forest restoration to be an affordable way to mitigate climate change impacts and address poverty reduction. Despite stakeholders in Nandi also expecting forest restoration to generate financial benefits, including from carbon markets, they felt such benefits are currently being hampered by contradictory laws and regulations, vested political interests, low enforcement capacity, poor coordination between stakeholders, and financial constraints.

Our findings also show 83% of key informants interviewed believing carbon markets could be an effective forestry-based mitigation option in Nandi, and 47% believing them to be a possible mechanism for financing forest restoration in the county. However, most community members participating in focus group discussions were ignorant of carbon markets, with 35% of key informants expecting this lack of understanding to be a major challenge to full implementation on the ground.

Despite Nandi County having numerous climate change mitigation and restoration projects and policies, interviewed stakeholders and community members participating in focus group discussions said they had never been involved in decision making for either central- or county-level policies. Key informants in Nandi perceived international organizations and governments to be the most influential stakeholders, but failed to recognize the important roles communities can play in forest restoration.

Reducing emissions from deforestation and forest degradation will not only help local people to continue benefiting from forest-based foods and incomes, but also be an effective measure for achieving low-emission food systems. To be successful, however; forestry restoration and mitigation projects and policies need to properly address drivers of deforestation and forest degradation; improve legal frameworks; foster cross-sectoral collaboration and coordination; and enhance community involvement in decision-making processes.



# 1 Introduction

The agriculture sector is the backbone of Kenya's economy (Haradhan 2014), but climate change has had devastating impacts on the country's agricultural production and food security (Kogo et al. 2021; Obwocha et al. 2022). Kenya's updated Nationally Determined Contribution (NDC) from 2020 projects Kenya's total greenhouse gas emissions (GHGs) increasing by 65.2% from 2015 to 2030, with 40% being agriculture sector emissions from livestock, farming and fertilizer application; and 38% from the land use, land-use change and forestry (LULUCF) sector. Accordingly, mitigation priorities listed in Kenya's NDC include implementing climate-smart agriculture and enhancing forestry mitigation measures by achieving tree cover of at least 10% of the total terrestrial area; scaling up nature-based solutions; reducing emissions from deforestation and forest degradation (REDD+); and creating a sustainable blue economy, including coastal carbon Payment for Ecosystem Services (Government of Kenya 2020). During COP 26, Kenya also committed to restoring 5.1 million hectares (ha) of degraded land while promoting inclusive rural transformation.

To support Kenya in achieving its ambitions, the CGIAR initiative on Low-Emission Food Systems (Mitigate+) is implementing research activities to ensure key stakeholders are equipped to make evidence-based decisions and address challenges in food system discourse, policy development and reducing greenhouse gas emissions (CGIAR 2021). The initiative is designed with five work packages (WPs):

- WP1 - Planning a strategy for low-emission food systems transformation by supporting national stakeholders in defining the priorities, scope and goals for low-emission, climate-resilient food systems development through the co-development and testing of a Food Systems Climate Intervention Planning (FOODCLIP) framework;
- WP2 - Developing data, evidence and tools for low-emission food systems transformation to ensure policymakers and programme implementers are equipped to reduce greenhouse gas emissions from food systems efficiently and cost-effectively;
- WP3 - Using a "Living Labs" approach to engage food systems stakeholders in co-designing and testing low- and negative-emission solutions with the potential to deliver co-benefits identified by stakeholders, such as climate adaptation, improved agricultural productivity and better social outcomes;
- WP4 - Scaling low-emission food systems by supporting an enabling environment for scaling at least five CGIAR innovations with potential to transform food systems, reduce emissions and deliver sustainable development co-benefits;
- WP5 - Transforming engagement and the climate mitigation and food systems policy agenda by ensuring policymakers and practitioners have the information, analyses, tools and networks they need to reduce food system greenhouse gas emissions, and ensure equitable impacts and co-benefits.

This report constitutes part of WP3, which focuses on engaging local stakeholders to co-design low-emission solutions in their specific contexts to deliver climate and social outcomes based on their needs and visions. A living lab is a physical space in which to solve societal challenges by bringing together various stakeholders for collaboration and collective ideation (Hossain et al. 2019). In the context of low-emission food systems, Mitigate+ defines a living lab as a space for citizens to co-design, test, demonstrate and advance socio-technical innovations and associated modes of governance. It is an inclusive platform for citizens, government, civil society, companies and research organizations, for co-creation, rapid prototyping or validation (Habermann and Zhang 2022). The Living Labs approach aims to generate institutional and governance settings where stakeholders collaborate, co-create and innovate to reach particular objectives and solve real-world problems (Lie et al. 2023).

In Kenya, Mitigate+ selected Nandi county as its Living Lab site since the county offers a broad scope of different commodities, and a diverse range of linkages to different stakeholders and societal groups in line with the national policy frameworks for mitigation and climate-smart agriculture (Habermann and Zhang 2022).

Nandi was among the first counties in Kenya to develop a climate change action plan. The plan aims to *“Strengthen Nandi County’s adaptive capacity and resilience to climate change and promote sustainable development as a mitigation strategy for the well-being of human and ecological systems”*. It also prioritizes increased food security through sustainable production systems that guarantee ecosystem integrity; mainstream climate change adaptation in the environment sector for resilient ecological and human systems; and enhance water security for climate change resilience, and resilient energy systems and infrastructure. To further demonstrate the county’s commitment to climate change mitigation, it established the climate change fund bill and seeks to have at least 3% of the county’s budget allocated to the fund (Nandi County Government 2020).

Located in the North Rift region of Kenya, Nandi County experiences moderate dry spells across the year with rainfall up to 50 mm in the early months (Government of Kenya et al. 2021). Nandi County has a population of around 885,711 people (National Bureau of Statistics 2019) who are highly dependent on agriculture for their livelihoods. Climate change impacts in Nandi County have been extensive, with approximately 83% of farming households affected (Government of Kenya et al. 2021). Nandi County’s total land-use area of 288,440 ha is mainly dominated by food crop and cash crop areas (46%), followed by forestry land (18%) (Jalang’o et al. 2023). A cool wet climate, complimented by rich volcanic soil makes Nandi an ideal area for growing tea, maize and sugarcane. Animal husbandry for dairy products is widely practiced in the county.

It is important to note that although Mitigate+ has five work packages, only WP3 operates in Nandi. As forestry-based mitigation options including reforestation, afforestation and forest restoration are considered key policies and measures for developing low-emission food systems (HLPE 2017), this report focuses on analysing forestry potential in climate change mitigation in Nandi as well as identifying key forestry stakeholders and their views on opportunities for, and challenges to achieving forestry-based mitigation options to meet the county’s low-emission food systems ambition.

A previous analysis conducted in Kenya by Martius et al. (2022) suggests priorities for action towards low-emission food systems being reducing emission intensities from enteric fermentation; improving the management of livestock feed and manure on pastures; promoting reduced deforestation; restoring forests on degraded lands; and increasing forest cover and agroforestry. Forestry, agroforestry farm development and forest conservation are also important components of Kenya’s Nationally Appropriate Mitigation Actions (NAMAs) and National Climate Change Action Plan (NCCAP).

Until now, there has been little research on forestry mitigation options and their implications for low-emission food systems in Nandi County. Our report aims to contribute to the Nandi County profile report, which unpacks food systems from cross-sectoral and multidisciplinary approaches.

## 2 Methods and materials

The study employed both quantitative and qualitative methods by collecting and analysing primary and secondary data. Primary data was collected from in-depth interviews with key informants, and focus group discussions (FGDs). A structured questionnaire was used for key informant interviews. Secondary data was derived from previous publications and gray literature on the forestry sector.

**Literature review:** While this report focuses on Nandi, the county's forestry sector is influenced not only by its own policies and institutions, but also by the national policy framework and stakeholders. Accordingly, we reviewed policies, reports and journal articles on forest management in Kenya and Nandi to identify key forestry stakeholders in the county.

**Key informant interviews:** To understand stakeholders' perceptions on opportunities and challenges for forestry-based mitigation options and low-emission food systems in Nandi, we conducted 19 key informant interviews in total: four with central government agencies; five with Nandi government agencies; six with international organizations; three with community association representatives; and one with the private sector. Key informants selected using purposive sampling were those holding critical information to inform our study.

**Focus group discussions:** We conducted three FGDs involving a total of 31 participants in Nandi: twelve from the Kapchorua Community Forest Association (CFA); ten from the Nandi Kimondi Iruru CFA; and nine from the Kundos River Basin Water Resource User Association (WRUA). FGD participants were active members of community associations who were selected randomly by ensuring men's, women's and youth representation. We purposely selected these community associations as they were identified as interacting with the most stakeholders in forest restoration activities. The FGDs were used to gain insights from participants on forestry-based mitigation options in Nandi; which stakeholders are involved in, and influence these options; and how they collaborate with each other. During the FGDs, we used net mapping exercises to help participants understand, visualize and discuss different actors and how they influence outcomes. The net mapping exercises were also aimed at helping individuals and groups to clarify their own views of situations, foster discussion, and develop strategic approaches to their networking activities (IFPRI 2007). In the Nandi context, we used net mapping to identify actors involved in different forestry-based mitigation activities, as well as their roles in, and influence over forest restoration. We drew network maps of stakeholders involved in policy influencing, capacity building and financial support arenas, then identified links between them.

All primary and secondary data were collated, cleaned and analysed. A content analysis was used for qualitative data, while quantitative data was coded in the Statistical Package for Social Sciences (SPSS) - V20, from which percentages, tables, frequencies and graphs were drawn. The primary data was triangulated from secondary data and information, key informant interviews, and FGDs.

# 3 Forest and tree cover in Nandi

## 3.1 Results from the literature review

The Kenya Forest Service (KFS) defines a forest as a land area – not primarily under agricultural or other specific non-forestry land use – of more than 0.5 ha, with more than 10% tree cover and trees of at least 2.5 metres in height (Government of Kenya 2016).

From 2002 to 2022, Nandi lost 870 ha of humid primary forest, making up 6.5% of its total tree cover loss during that period (Global Forest Watch 2023). The total area of humid primary forest in Nandi decreased by 2.8% over the same time period, with primary forest loss fluctuating, but declining since 2018 (Figure 1).

From 2001 to 2022, Nandi lost 14,300 ha of tree cover, equivalent to a 13% decrease since 2000, resulting in emissions of 8.83 million metric tons of carbon dioxide equivalent (MtCO<sub>2</sub>e) (Figure 2). With increased tree and forest cover, Nandi County can enhance its carbon sinks as forest ecosystems account for almost half of the carbon stored in terrestrial ecosystems (Chen et al. 2016).

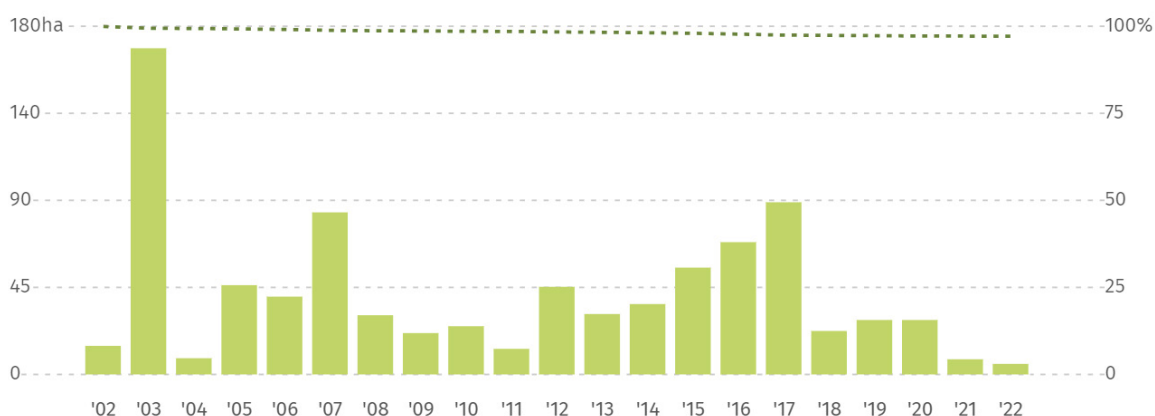


Figure 1. Primary forest loss in Nandi, 2002–2022

Source: Global Forest Watch 2023

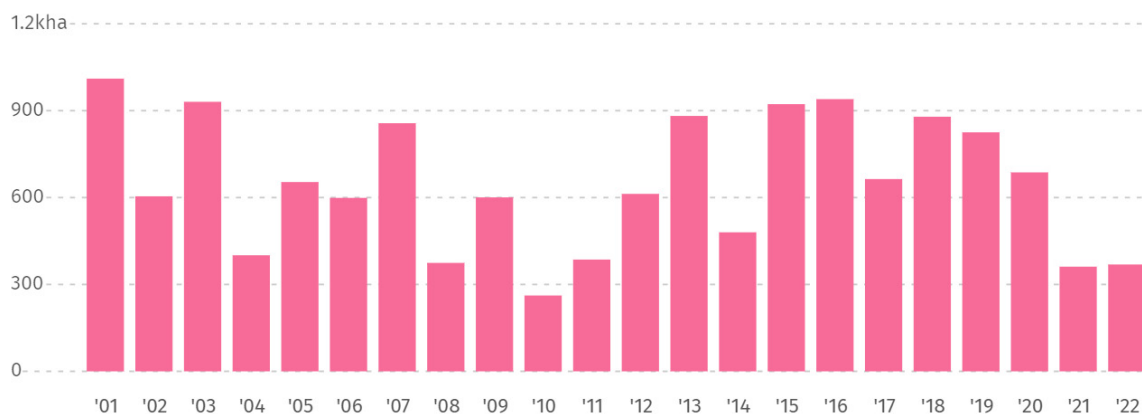


Figure 2. Tree cover loss in Nandi, 2002–2022

Source: Global Forest Watch 2023

From 2000 to 2020, Nandi experienced a net change of -3,840 ha (-4.4%) in tree cover (Global Forest Watch 2023). In 2021, forest cover in Nandi was 26% of the county’s terrestrial area (Kenya Forest Service 2021). The Nandi County Government intends to increase forest cover from the current 26% to 50% (Star 2022), mostly through tree planting.

According to Nandi’s County Integrated Development Plan (CIDP) for 2018–2023, the largest forest in the county is South Nandi Forest, covering an area of 20,150 ha. Nandi County has six gazetted forests covering a total area of 52,425 ha (Nandi County 2018). Southern Nandi has a total carbon store of  $2.8 \pm 0.8$  million tons of carbon (equivalent to  $10.5 \pm 2.9$  MtCO<sub>2</sub>e) (Gibson and Joel 2018).

### 3.2 Results from primary data collection

FGDs and key informant interviews both revealed stakeholders in Nandi were aware of a decline in the county’s forested area. In-depth interviews with KFS officials also showed forests being encroached upon for tea and agricultural production. Table 1 shows the different forest types in Nandi.

**Table 1. Different forest types in Nandi County**

No.	Ecosystems in forest areas	Area (ha)
1	Plantation forest	3,679.1
2	Indigenous forest	52,279.45
3	Grasslands	2,704.8
4	Wetlands	354.9
5	Nyayo tea zones in forests	1,124.1
6	Encroached areas	2,206.45
<b>Total</b>		<b>61,348.8</b>

Source: In-depth interviews with Kenya Forest Service officials in 2023

# 4 Drivers of deforestation and forest degradation

## 4.1 Results from the literature review

Species-rich tropical forests in Nandi are becoming increasingly fragmented and degraded, and are declining in area due to human activities (Bett et al. 2017). Deforestation and forest degradation in Nandi have led to biodiversity loss, reduced living standards for local people, declines in land productivity, and a lack of forage, fodder and tree products and services (Tanui and Chepkuto 2015). Previous research has highlighted key drivers of deforestation and forest degradation in Nandi, including illegal and legal logging activities (Catherine et al. 2021); population growth; agriculture intensification and the need for more land for food production; and changing societal needs putting pressure on the limited resources available (Klopp 2012; Tanui and Chepkuto 2015; Tanui and Saina 2015; Albertazzi et al. 2018; Koech and Koech 2020). Growing demands for fuelwood, timber and land for cropping and grazing have also been identified as drivers of forest degradation in Nandi County (Osonuma et al. 2021). Large trees such as *Olea capensis*, *Fagaropsis angolensis*, *Celtis africana*, *Cassipourea malosana*, *Syzygium cordatum*, *Diospyros abyssinica* and *Croton megalocarpus* have been exploited illegally for fence posts, timber, fuelwood and herbal medicines leaving invasive saplings such as *Cestrum aurantiacum* and *Solanum mauritanum* to take over large areas of forest (Muskiton 2022).

In South Nandi Forest, lack of sustainable employment as a result of low levels of education has led to people encroaching on forests for income generation (Koech 2020). Rural populations, which make up the majority of voters, continually face economic hardships that force them to encroach on forests to sustain their livelihoods and access resources for economic gain (Maua et al. 2020; KAM 2021). As a result, any policy barring them from accessing forested ecosystems is considered repressive, with local politicians reportedly taking advantage of this scenario to drive political agendas by urging locals to encroach on forested ecosystems. Restoring degraded forest ecosystems in the county will therefore require a raft of measures beyond simply initiating policy interventions (Fawzy et al. 2020).

## 4.2 Results from primary data collection

Participants in key informant interviews and FGDs shared similar views on complex drivers of deforestation and forest degradation in Kenya, including demographic and financial pressures, poor governance and conversion to other land uses (Figure 3).

FGD participants highlighted forests and wetlands in Nandi being lost due to locals cultivating and planting eucalypts on riparian areas. In some cases, wetlands are drained and converted to agricultural land. They also purported forest boundaries and fences are unclear, allowing locals easy access to protected areas. FGD participants also saw weak law enforcement and corruption as underlying reasons for forest loss and stands of indigenous tree species diminishing in Nandi forest ecosystems due to illegal logging. Government officials, meanwhile, highlighted limited financial resources leading to challenges in enforcing regulations.

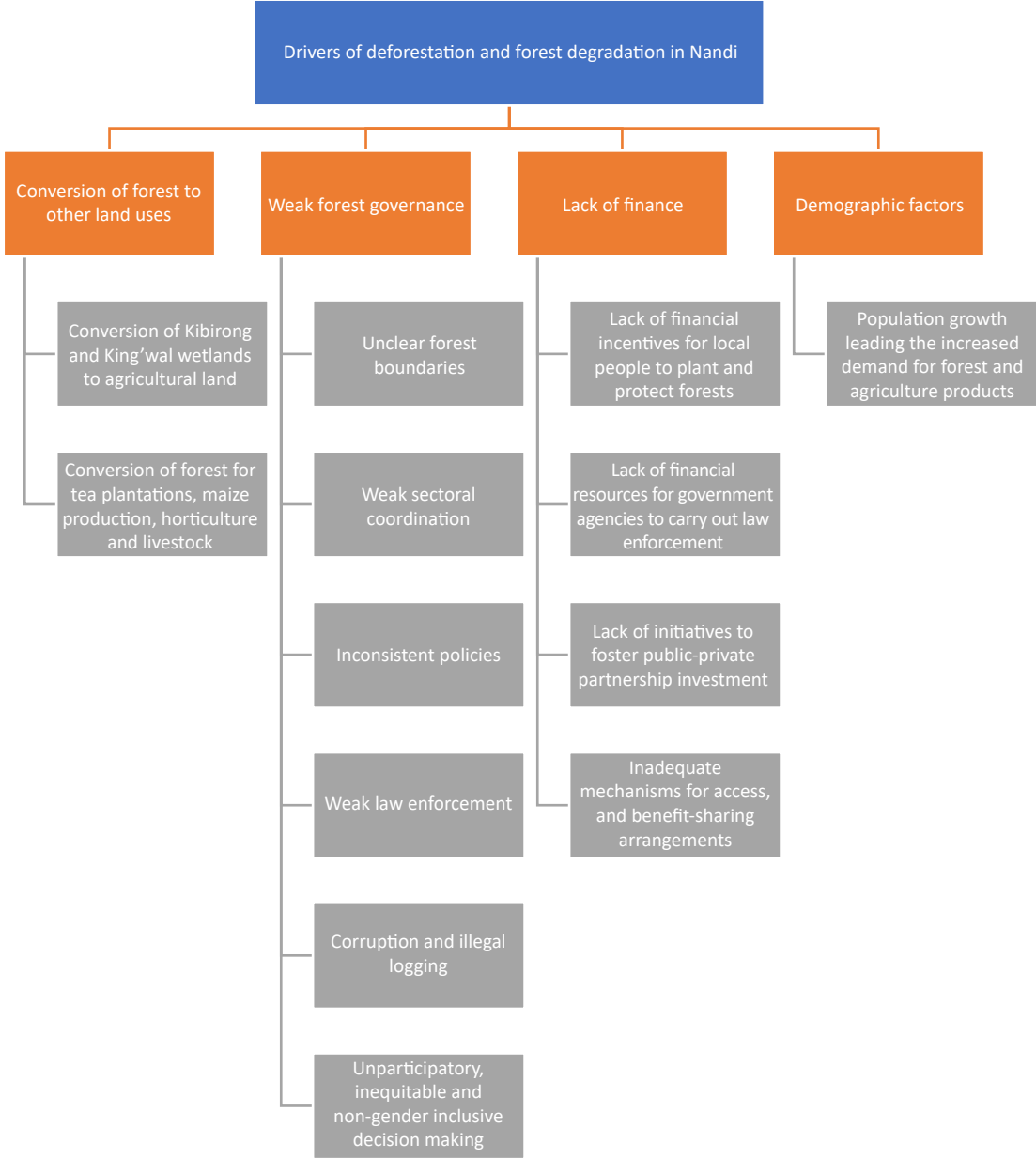
Interviewees and FGD participants both highlighted population growth, increasing household demand and reliance on fuelwood for cooking and NTFPs for food, and weak coordination – between government agency stakeholders and between government agencies and local communities – being major drivers of deforestation in Nandi. Key informant interviewees highlighted forests being managed by different government agencies



causing issues. Each agency has different policies for forest restoration, which can create confusion and overlaps in implementation, particularly as inter-agency coordination is currently ineffective.

Local people participating in FGDs also said collaboration and coordination in protecting forests between government agencies, private sector companies and local people is ineffective due to unclear benefit sharing mechanisms and a lack of financial motivation to work together. This weak collaboration is also because local people and communities are often excluded from decision-making processes. Both CFA and WRAU members said that despite the 2016 Water Act and 2016 Forest Act both emphasizing the need for co-management and consultation with local communities, meaningful participation do not happen in practice.

CFA and WRAU members also pointed out that water pollution from adjacent farms, especially tea plantations, and cattle grazing also lead to deforestation and forest degradation in Nandi.



**Figure 3. Local stakeholder views on drivers of deforestation and forest degradation in Nandi**

Source: Interview results with key informants, results from FGDs

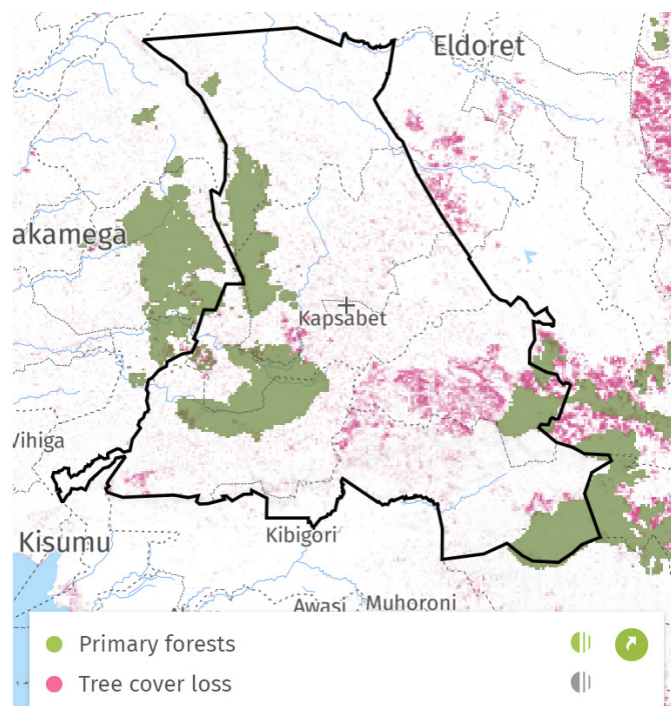
# 5 Forest biodiversity in Nandi

## 5.1 Results from the literature review

**Forest biodiversity in Nandi is well documented and recorded in previous scientific research.**

Nandi forests comprise the Tinderet, Serengonik, North Nandi and South Nandi forests, all of which provide habitats for snakes, colobus monkeys, antelopes, butterflies, wild pigs and birds, as well as various soil organisms and many plant species (Melly et al. 2020). According to Girma et al. (2015), monkeys and Hornbills were the most dominant species in North Nandi Forest, while South Nandi Forest had higher species biodiversity (253 species) than North Nandi (181 species). Three distinct plant communities are *Diospyros abyssinica-Heinsenia diervilleoides*, *Trilepisium madagascariense-Solanum mauritianum* and *Turraea holstii-Ehretia cymosa*. *Prunus africana* is a multipurpose medicinal tree of worldwide fame in the treatment of benign prostate cancer and is also found in southern Nandi (Koros et al. 2016). South Nandi Forest is also the most important site for the conservation of the globally threatened *Eremomela turneri*, but is under pressure from a growing human population, farming and grazing (Mbuvi et al. 2015).

Communities living in hill forest areas in Nandi have highlighted the important roles of forests in providing dry season pasture for livestock; increasing the aesthetic value of the environment; being water catchments that attract rainfall and store water for rivers; providing timber and fuelwood for domestic and industrial uses; purifying water and air, thus ensuring ecosystem balance; being habitats for an array of biodiversity including plants, birds, reptiles and other wild animals; and providing landscape beauty and tourist attractions that benefit the government and local communities through revenue generation (Tanui and Chepkuto 2015).



**Figure 4. Primary forests and tree cover loss in Nandi**

Source: Global Forest Watch 2023

## 5.2 Results from primary data collection

More than 83% of interviewees claimed they had put significant effort into, and are interested in supporting biodiversity conservation in Nandi. Most key informants highlighted work by the International Crane Foundation, which aims to protect the King'wal wetland, an important breeding and feeding habitat for the grey crowned crane (*Balearica regulorum*). They highlighted intensive livestock farming, and floods and droughts due to climate change affecting this species and the habitat needed to sustain its population. The foundation is conducting a project that involves developing sustainable buffer zones around the wetland by planting indigenous trees and fruit trees, and promoting beekeeping to create an alternative livelihood source for local people in order to reduce pressures on the wetland area.

# 6 Forest livelihoods in Nandi

## 6.1 Results from the literature review

Indigenous communities in Nandi County have relied on forests for food and incomes for many years (Tanui et al. 2013). Numerous studies have already highlighted the important role of forests in Nandi in providing local households with fuelwood, fodder, herbal medicines and incomes (Jeruto et al. 2008; Maua et al. 2020). Non-timber forest products (NTFPs) contribute between 32.7% and 48.7% of earnings for households in Nandi (Maua et al. 2019). The same authors also quantified the economic values of forest uses in South Nandi Forest reserve, finding NTFPs providing average annual earnings of USD 579.51 per household; annual fuelwood extraction being  $7,285.4 \pm 1,586.9$  kg per household; households spending an average of  $2.9 \pm 1.2$  hours to collect a headload of fuelwood; and net economic value for grazing cattle in the forest ranging from USD 11.6 to USD 205 per household (Maua et al. 2019).

However, Maua et al. also found the availability of these forest products falling significantly over the previous 10 years. An outcome of such scarcities has been local households in Nandi being willing to contribute extra money, above normal maximum willingness to pay (WTP) amounts for improved forest product management. Sumukwo et al. (2013) indicated residents being willing to pay an insurance premium of KES 2,538 per annum to guarantee a continued supply of NTFPs into the future.

## 6.2 Results from primary data collection

Our FGDs and interviews with stakeholders showed local people in our surveyed communities in Nandi implementing a wide range of forest related livelihood activities.

**Beekeeping:** FGD participants reported honey from beekeeping in forests being an important NTFP that provides an income source and food for local people, while simultaneously promoting forest conservation. CFA and WRUA members both practice beekeeping in forest ecosystems. The Kundos WRUA has two fishponds and two apiaries with 50 beehives; the beekeeping is practiced both in the forest and individual farms, where the owner is entitled to 10% of proceeds.

However, CFA members pointed to a lack of finance for purchasing modern hives and funding honey processing for better returns. Members of the Kundos WRUA pointed to a similar problem and highlighted the lack of economic return if honey is not processed, packaged and sold in markets.

**Fish farming:** WRUA members reported to undertake fish farming in the forest reserve as an alternative income generating activity, which had not only provided incomes for local people, but also food and nutrients for local households. However, due to a lack of funds for restocking, community members participating in the FGD said this activity was being practiced at small-scale level, the WRUA had only two fishponds by time of the study.

**Participating in the Plantation Establishment and Livelihood Improvement Scheme (PELIS):** Introduced after the enactment of the 2005 Forest Act, PELIS is a governance scheme operated by the Kenya Forest Service (KFS) to help increase forest cover and restore degraded forests across the country. Under the PELIS scheme, communities are allowed to plant food crops – mostly Irish potatoes, carrots and maize – in the first three years of tree establishment. PELIS areas are usually identified by KFS and allocated to farmers, mostly those in CFAs. Though CFAs are at the core of forest restoration as they

provide labour during planting, and maintain planted tree seedlings, they have little access to benefits from forest resources, particularly timber – the more lucrative forest product – due to the lack of any signed benefit sharing mechanisms between KFS and CFAs. CFA members decried being excluded by government institutions from decision making and benefitting from forests apart from during tree planting, saying, *“The government is a friend to CFAs during tree planting but an enemy during the harvesting of the plantation trees”*.

**Ecotourism** is one of the recreational services a forest can provide, and may generate alternative income for CFA members. Nandi Hill Forest offers a beautiful landscape and is a popular destination with tourists from surrounding cities and community members. In addition to its rich biodiversity, it could potentially provide income opportunities from nature trails, hotels, birdwatching and environmental education. However, these have yet to be actualized due to limited funds for investing in ecotourism infrastructure.

**Fuelwood collection:** Most community members participating in FGDs highlighted the importance of fuelwood for cooking and energy, saying some members also collect fuelwood to generate additional income. According to FGD participants, households’ reliance on fuelwood for cooking and energy also causes deforestation and forest degradation.

**Tree seedling production:** This is an alternative income activity practiced by most CFA members, who are allowed to collect wildlings from forests for tree seedling nursery establishment. One CFA said its tree nursery generated earnings of around USD 1,500 in 2022 from buyers comprising KFS, forest NGOs and individuals.

# 7 Forestry stakeholders and their influence on forest-food systems in Nandi

## 7.1 Results from the literature review

Results from the policy and literature review showed a wide range of national bodies designing and implementing policies that affect Nandi County (Table 2).

**Table 2. National actors influencing forests in Nandi County**

Stakeholder/Entity	Roles
Ministry of Environment and Natural Resources Development – Nandi County	<ul style="list-style-type: none"> <li>• Focuses on forests outside gazetted forests, such as private forests under tea estates</li> <li>• Deals with regulatory matters, such as regulation of waste management, in collaboration with NEMA and the municipal council</li> <li>• Developed climate change policy in collaboration with FAO, which provided funding and technical support</li> <li>• Guides the county government on ways of addressing climate change</li> <li>• Participates in the ongoing amendment of the Climate Change Act by sending proposals through the Council of Governors</li> <li>• Guides communities in identifying and prioritizing projects to be funded, and come up with budgets for these projects</li> </ul>
Kenya Forest Service (KFS)	<ul style="list-style-type: none"> <li>• Owns, co-manages and protects all state/gazetted forests</li> <li>• Promotes forestry education and training</li> <li>• Enforces regulations pertaining to charcoal burning, logging and other utilization activities</li> <li>• Apprehends and prosecutes violators of forest law and regulations</li> </ul>
Kenya Forestry Research Institute (KEFRI)	<ul style="list-style-type: none"> <li>• Undertakes research and provides technologies and information for sustainable management, conservation and development of forests and associated natural resources</li> <li>• Offers training on quality seedling production and planting, including giving tree seedlings to communities (CFA members reported having received training and seedlings from KEFRI)</li> </ul>
National Environment Management Authority (NEMA)	<ul style="list-style-type: none"> <li>• Coordinates environmental management activities being undertaken by lead agencies</li> <li>• Conducts environmental awareness raising activities</li> <li>• Undertakes pollution control</li> <li>• Performs environmental impact assessments before projects commence</li> <li>• Acts as Secretariat of the County Environment Committee (CEC)</li> <li>• Applies emissions regulations obliging operators of facilities such as factories to apply for emissions licenses, with failure to do so resulting in fines</li> </ul>

## 7.2 Results from primary data collection

### 7.2.1 Actor roles and influence

Results from FGDs and key informant interviews showed various forest actors in Nandi County with varying levels of influence and different roles in forest restoration (Table 3).

**Table 3. Forestry sector stakeholders and roles in Nandi County**

Stakeholder/Entity	Roles
<b>Kenya Water Towers Agency (KWTA)</b>	<ul style="list-style-type: none"> <li>Coordinates and oversees the protection, rehabilitation, conservation and sustainable management of water towers in Kenya</li> <li>Rehabilitated around 20 ha of the Kibirong Wetland through the planting of baobab seedlings</li> <li>Erected around 30 km of electric fences around the Kibirong Wetland</li> <li>Constructed a biogas plant in Chepkon'ony primary school in Nandi south</li> <li>Planted around 5,000 tree seedlings in the last financial year in collaboration with other stakeholders in Nandi forests</li> </ul>
<b>Nandi County Department of Natural Resources Development</b>	<ul style="list-style-type: none"> <li>Focuses on forests outside gazetted forests, such as private forests under tea estates</li> <li>Deals with regulatory matters such as the regulation of waste management in collaboration with NEMA and the municipal council</li> <li>Developed the climate change policy in collaboration with FAO, which provided funding and technical support</li> <li>Guides the county government on ways to address climate change</li> <li>Participated in ongoing amendment of the Climate Change Act by sending proposals through the Council of Governors</li> <li>Guides communities in identifying and prioritizing projects to be funded, and comes up with budgets for such projects</li> </ul>
<b>County Environment Committee</b>	<ul style="list-style-type: none"> <li>Provides technical assistance in terms of correspondence, inquiry, research, policy analysis and resource development for county governments across a range of policy issues</li> <li>Involved in the process of developing the County Government Act, Wetland Act, and County Climate Change Act of 2021</li> </ul>
<b>Nandi County branch of the Kenya Forest Service (KFS)</b>	<ul style="list-style-type: none"> <li>Owns, co-manages and protects all state/gazetted forests</li> <li>Promotes forestry education and training</li> <li>Enforces regulations pertaining to charcoal burning, logging and other utilization activities</li> <li>Apprehends and prosecutes violators of forest law and regulations</li> </ul>
<b>Kenya Forestry Research Institute (KEFRI)</b>	<ul style="list-style-type: none"> <li>Undertakes research and provides technologies and information for sustainable management, conservation and development of forests and associated natural resources</li> <li>Offers training on quality seedling production and planting, including giving tree seedlings to communities (CFA members reported having received training and seedlings from KEFRI)</li> </ul>
<b>National Environment Management Authority (NEMA)</b>	<ul style="list-style-type: none"> <li>Coordinates environmental management activities being undertaken by lead agencies</li> <li>Conducts environmental awareness raising activities</li> <li>Undertakes pollution control</li> <li>Performs environmental impact assessments before projects commence</li> <li>Acts as Secretariat of the County Environment Committee (CEC)</li> <li>Applies emissions regulations obliging operators of facilities such as factories to apply for emissions licenses, with failure to do so resulting in fines</li> </ul>

*continued on next page*

**Table 3.** Continued

<b>Stakeholder/Entity</b>	<b>Roles</b>
<b>Anglican Development Services (ADS – N/Rift)</b>	<ul style="list-style-type: none"> <li>• Promotes forest restoration and sustainable agriculture through the use of a People Owned Process (POP) approach</li> <li>• Works with around 2,000 households divided into 50 farmer groups to exchange ideas and analyse situations</li> <li>• Has planted fruit trees and laid terraces to prevent runoff and conserve soil</li> <li>• Is promoting tree nurseries with around 10,000 tree seedlings</li> <li>• Is training farmers on value-addition</li> </ul>
<b>Community forest associations (CFAs)</b>	<ul style="list-style-type: none"> <li>• Formed by communities living adjacent to forests – as part of the government establishment to ensure participatory and sustainable forest management – to use forests sustainably to generate income and improve livelihoods, thereby easing pressures on forests</li> <li>• CFAs in seven zones contribute to the PELIS scheme, with KFS allocating them plots of land for around KES 250 to plant seedlings, where 20% of proceeds go to the community. CFAs have various user groups run by a committee. The Nandi Kimondi Iruu has around 4,000 members with only 800 being active</li> </ul>
<b>Water resources user associations (WRUAs)</b>	<ul style="list-style-type: none"> <li>• Formed by communities living adjacent to water resources – as part of the government establishment to ensure participatory and sustainable water management – to use water sustainably</li> <li>• The WRUA in Nandi covers 10 administrative locations in the county, with association members comprising riparian landowners, abstractors, non-consumptive members, and observer members. Office bearers are a chairperson, vice chairperson, secretary, assistant secretary and treasurer. Every member pays a monthly subscription fee of KES 200. The WRUA collaborates with actors such as WARMA, KFS and the government, which offer capacity building and provide tree seedlings</li> <li>• Its main activities include: <ul style="list-style-type: none"> <li>– Developing tree nurseries for indigenous, exotic and fruit trees to produce seedlings for environmental conservation, woodlots and food;</li> <li>– Restoring areas along the Kundos River and lobbying for the removal of eucalyptus species from wetlands;</li> <li>– Promoting community access to safe and adequate water for both farming and domestic use;</li> <li>– Operating two apiaries with 50 beehives and two fishponds;</li> <li>– Managing and protecting eight springs (it has distributed 10 water storage tanks to 10 schools);</li> <li>– Expanding a tree nursery from having 50 grow tubes to around 200,000;</li> <li>– Constructing 200 terraces in the whole catchment area.</li> </ul> </li> </ul>
<b>International Crane Foundation</b>	<ul style="list-style-type: none"> <li>• Works solely to conserve cranes and the ecosystems, wetlands and flyways on which they depend</li> <li>• Carries out capacity building and training to provide knowledge, leadership and inspiration to engage people in resolving threats to cranes and their diverse landscapes</li> <li>• Encourages the setting up of buffer zones around wetlands by planting indigenous trees and fruit trees, and promoting beekeeping to create an alternative livelihood source</li> </ul>
<b>Senior chief - Kibuko</b>	<ul style="list-style-type: none"> <li>• Together with CFAs, the chief is actively involved in forest protection through reporting of individuals who encroach on forests</li> <li>• In collaboration with other stakeholders, has planted trees on an area of around 14 ha using seedlings from CFAs</li> </ul>

*continued on next page*



**Table 3.** Continued

<b>Stakeholder/Entity</b>	<b>Roles</b>
<b>Food and Agriculture Organization in Nandi (FAO)</b>	<ul style="list-style-type: none"> <li>• Its main mandate is to achieve food security for all and ensure people have regular access to enough high-quality food to lead active, healthy lives</li> <li>• Trains CFAs on alternative livelihood sources, such as beekeeping, dairy farming and tree nurseries, and conservation measures</li> <li>• Developed wetland management plans for King’wal and Kundos wetlands</li> <li>• Supported the government in the development of a county climate change policy and the Wetland Act</li> <li>• Is in the process of developing a natural resource management policy, which is still in the draft stage</li> <li>• Co-financed the entire process of developing the Nandi County climate change fund bill</li> </ul>
<b>One Acre Fund</b>	<ul style="list-style-type: none"> <li>• Offers a comprehensive tree package that supplements seasonal harvests, providing stability for farmers and at the same time empowering them to help protect the environment</li> </ul>
<b>Green Belt Movement</b>	<ul style="list-style-type: none"> <li>• Forest restoration - planted 50,000 trees in 2023 in Nandi North Forest</li> <li>• Capacity building for the Nandi North, Nandi South and Tinderet CFAs</li> </ul>
<b>Government chiefs</b>	<ul style="list-style-type: none"> <li>• Chiefs implement government policies at the community, location and sub-location levels</li> </ul>
<b>Tea companies</b>	<ul style="list-style-type: none"> <li>• The twenty tea factories in Nandi County are all willing to comply with emission regulations as most of their products are sold internationally</li> </ul>
<b>Lake Victoria Environmental Management Project (LVEMP)</b>	<ul style="list-style-type: none"> <li>• LVEMP is a regional effort conceived and initiated to address observed environmental challenges by bringing problems threatening sustainable development and utilization of the lake basin resources to the attention of East Africa Community (EAC) partner states and stakeholders, and strengthening governing institutions</li> </ul>
<b>Financial institutions - Kenya Commercial Bank (KCB), Equity Bank</b>	<ul style="list-style-type: none"> <li>• Involved in giving tree seedlings and capacity building support to community members, mostly through government institutions</li> </ul>

Source: Compiled by the authors from the results of FGDs and in-depth interviews in 2023

Key informants and FGD participants cited these actors as being important for implementing forestry-based mitigation options in Nandi, and playing essential roles in influencing policies; providing financial resources and seedlings for forestry-based mitigation options, notably forest restoration; and supporting training and capacity building. At local level, FGD results indicated these stakeholders’ levels of influence over these three essential roles (Table 4).

Table 4 clearly shows FGD participants perceiving the county government and policymakers to be the most influential actors, with other actors failing to recognize the roles that communities and local people play.

**Table 4. Stakeholder importance and influence**

	<b>Most influential</b>	<b>Quite influential</b>	<b>Least influential</b>
Influencing policies	FAO, KEFRI, ADS – N/Rift	County government	KFS
Providing financial resources and/or tree seedlings	County government, KEFRI, Green Belt Movement, KWTA	European Union	LVEMP, FAO
Supporting training and capacity building	ADS – N/Rift, European Union, Equity bank, KCB, county government	KFS	LVEMP

Source: FGD results

### **7.2.2 Nandi stakeholders' perceptions on their participation in, and influence over policy outcomes**

Results of interviews show 88% of key informants feeling they had afforded considerable effort into implementing national forest and climate change policies as well as those specific to Nandi County. However, while most stakeholders claimed to have put significant effort into a wide range of climate change efforts in Nandi, only 35% said they had been involved in policy development, with 6% saying they had no involvement at all in such processes. All of those saying they were not involved in decision making were members of community-based organizations.

# 8 Forestry mitigation efforts in Nandi and stakeholders' views on mitigations options

## 8.1 Results from the literature review

Our literature review showed multiple forestry initiatives being rolled out in Nandi County to protect forests and mitigate the effects of climate change (Table 5).

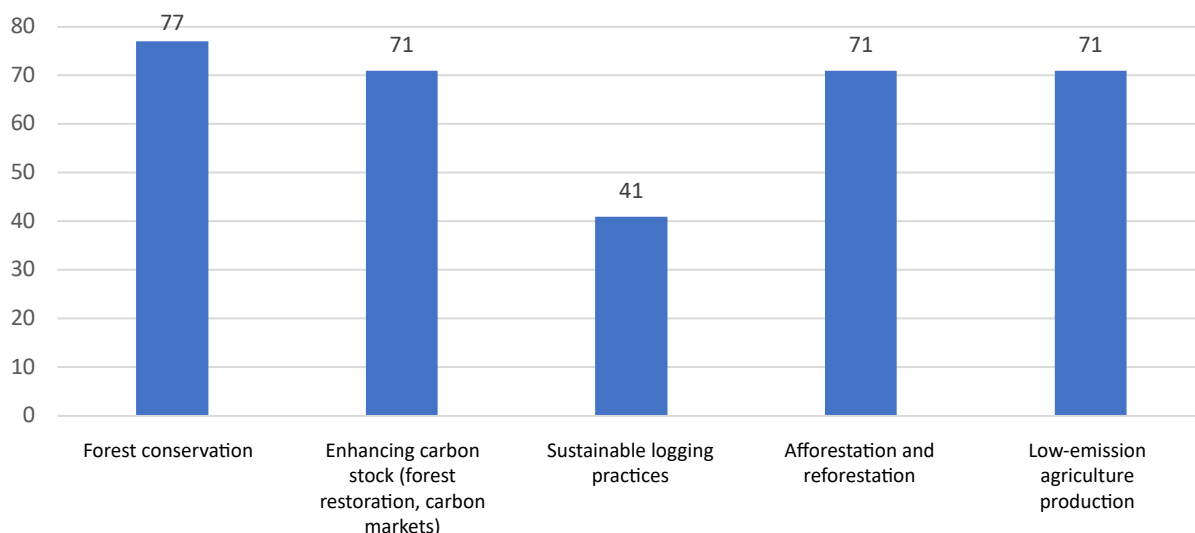
## 8.2 Results from primary data collection

Results from key informant interviews show forestry stakeholders in Nandi having significant involvement in forest conservation, enhancing carbon stock, sustainable logging practices, afforestation and reforestation, and low-emission agriculture (Figure 5).

The majority of interviewees had 'much interest' to 'very much interest' in implementing these forestry-based mitigation options, with 88% supporting biodiversity conservation, 83% supporting poverty alleviation, 77% supporting improved forest governance, 50% supporting community-based management, and 50% supporting carbon markets.

**Table 5. Climate action initiatives in Nandi County**

No.	Activity/Initiative	Source of information
1	Farmers have embraced tree planting as an adaptation strategy – around 56% of households in Nandi County plant trees to alleviate the effects of climate change.	Agricultural Sector Development Support Programme (ASDSP) 2014
2	The county is removing eucalyptus trees from wetlands and replacing them with indigenous trees – in partnership with the Kenya Forest Service and key stakeholders, the county government aims to establish forest cover of over 10% of the county's area through afforestation programmes.	Nandi County Government 2018
3	Conservation agriculture is increasing in popularity in Nandi County – around 46% of households practice soil and water conservation strategies. Conservation agriculture practices include using minimum tillage, permanent soil cover, and crop rotation strategies. More than 90% of households have some knowledge of conservation agriculture practices, including ridge cultivation, planting in rows, planting hedgerows, applying manure, crop rotation and timely weeding.	Wambugu et al. 2014; ASDSP 2014
4	Water-harvesting initiatives are developing in Nandi County. Stakeholders support farmers, households and schools in building water pans and acquiring water tanks for rainwater harvesting. The collected water is used on small farms and in kitchen gardens, as well as in homes.	Nandi County Government 2020
5	To protect farmers from climate-related risks, the county could support insurance schemes and educate farmers on the importance of insuring their crops and livestock. The Nandi County Government has partnered with Acre Africa to insure farmers against crop damage caused by unfavourable weather conditions.	Nandi County Government 2020



**Figure 5. Forestry based-mitigation options in Nandi and percentages of stakeholders involved**

Source: Results from key informant interviews

Among these mitigation options, forest restoration and carbon markets were perceived as having the greatest potential, though key informants and FGD participants had different views regarding the two options.

Our results show 83% of key informants believing carbon markets could be an effective forestry-based mitigation option in Nandi, with around 47% feeling they could be a possible financing mechanism for forest restoration. In interviews, around half of key informants said they had put significant effort into supporting a carbon market and carbon trade in Nandi, while 47% had no knowledge of carbon markets, and 41% agreed or strongly agreed that stakeholders lack technical expertise for monitoring carbon emissions and sequestration. Meanwhile, most FGD participants were unaware of carbon markets.

More than 88% of key informants strongly agreed that forest restoration in Nandi can lead to improved forest governance, and is a practical option for reducing greenhouse gas emissions, with 94% feeling it to be an affordable way to mitigate climate change. Over 87% said they had put significant effort into, and had ‘very much interest’ in supporting activities towards improved forest governance, while 59% said they had ‘very much interest’ in supporting community-based forest management.

Most key informants and community members in FGDs felt community forest associations (CFAs) to be good vehicles for local people to participate in forestry-based mitigation activities. However, FGD results also revealed local people’s views on major challenges in operating CFAs. Firstly, as CFA memberships are diverse, with members having different backgrounds, cultures, languages and aspirations, it is sometimes difficult to reach consensus on decisions relating to forest management. Conflicting interests can arise in communities, with some people favouring forest conservation and others arguing the necessity to continue exploiting forests for their daily needs. CFA members felt population growth could exacerbate these differences and increase pressure on forests as more people rely on them for their resources. Several CFAs members also highlighted mistrust among CFA members due to earlier issues with misuse of funds, and the lack of an adequate financial mechanism dampening members’ enthusiasm to work on forest protection.

Secondly, CFA members highlighted the unclear benefit sharing mechanism between themselves and the Kenya Forest Service, with one member saying, “*the KFS and CFA are friends when it comes to tree planting and firefighting, but enemies when it comes to sharing the benefits of tree planting*”. FGDs and interviews with government officials both indicated limited inclusion of, and engagement with CFA members in decision-making processes pertaining to sharing the benefits of forest conservation.

Thirdly, there were differing views regarding local community involvement in forest conservation and protection activities. Key informants expressed their concerns that local communities are often over-reliant on external organizations such as NGOs, and lack the technical capacity to plant forests. FGD participants, on the other hand, said that as the government and donors often see communities as unable to carry out reforestation activities, most initiatives are designed and determined by international organizations and government agencies without considering local community views.

Key informants and FGD participants also highlighted numerous challenges for forest restoration in Nandi. While forest restoration is prioritized in numerous policies, 94% of key informants agreed that it remains a challenge as it is difficult to address major drivers of deforestation effectively without compromising development objectives. More than 94% of key informants also agreed or strongly agreed that lack of finance; ineffective coordination on forest restoration between state agencies, the private sector and civil society; and contradictions between laws and regulations in the forestry, agriculture and other sectors have impeded forest restoration in the county. In addition, 35% felt stakeholders in Nandi still lack awareness of, and knowledge on forest restoration.

There was also some polarization between key informants' opinions over what constitute key challenges to forest restoration in Nandi. For example, 30% agreed that clarifying tenure rights is a major challenge, while 53% disagreed. Those government officials disagreeing felt that existing policies already address this challenge as CFAs are mandated to develop Participatory Forest Management Plans (PFMPs) and sign Forest Management Agreements (FMAs) with KFS, through which CFA members gain certain forest user rights, including access to NTFPs and ecotourism (Republic of Kenya 2016). Meanwhile, those agreeing that tenure rights need clarification felt that land tenure policies are not well-implemented in practice. Only 24% of key informants said they had 'very much interest' in putting effort and funding into improving the land tenure situation in Nandi.

Similarly, while 35% of key informants agreed that contradictions between laws and regulations at different jurisdictional levels (e.g., between national and sub-national levels) constitutes a challenge, 65% disagreed with this statement. Examples of contradictory policies are the Ministry of Lands being able to issue title deeds to individuals for areas including wetlands and forests, where National Environment Management Authority (NEMA) laws prohibits human activities in these protected areas. This creates confusion and makes it hard for NEMA to perform its duties in regulating and protecting such areas. Another conflicting policy concerns riparian areas, with all agencies having their own regulations on how far human activities can go into such areas. The Ministry of Agriculture, for instance, permits cultivating within six metres of a riparian zone, while NEMA laws say no cultivation should occur within 30 metres of the highest recorded flood point. Clearly, these agencies have different definitions and mandates and conflicting laws pertaining to the same resource. Consequently, there is a need to harmonize policies, and for more coordinated efforts between state agencies. Meanwhile, 76% of key informants and community members participating in FGDs shared the common view that weak law enforcement is a major constraint to forest restoration.

All key informants saw great potential for forest carbon projects to implement forest restoration, with around 71% agreeing that forest restoration will not succeed without private sector engagement, for example, through carbon markets. More than 94% of key informants agreed that forest restoration should be required to deliver co-benefits, such as poverty reduction and biodiversity conservation, in addition to carbon outcomes. Around 41% of key informants agreed that the requirement to have an established safeguards and information system to access results-based finance such as carbon markets will provide sufficient incentives to ensure effective implementation. Meanwhile, 82% of key informants said they had put significant effort into, and had a strong interest in supporting poverty reduction as part of any forest restoration strategy.

Benefit sharing from restoration activities continues to be a contentious issue in the county. In-depth interviews and FGDs revealed forest restoration having various benefits for forest adjacent communities and beyond, including: increasing the supply of water for domestic, industrial and

irrigated agriculture; conserving biodiversity and soil, and frost control; and increasing forest product availability and the potential for payments for restoration activities through carbon schemes. They also revealed stakeholders incurring costs for capacity building, seedling acquisition, and labour for planting and maintenance of tree seedlings; as well as time and resources spent on policy advocacy and enforcement.

All key informants and FGD participants agreed that benefits generated from forest restoration – notably cash payments from any future carbon schemes – should go to those already conserving forests, mostly CFAs and WRUAs, including those who bear opportunity costs of forest restoration, in this case on-farm tree growing. More than 71% of key informants also argued that actors who reduce emissions by implementing climate-smart agriculture practices should also be rewarded, either through carbon payment schemes or payments for forest restoration. Ninety-nine percent of key informants disagreed that payments for forest restoration and carbon should go to those who have legal rights because the land tenure situation in Nandi is unclear, is often contested, and creates conflicts between stakeholders. Sixty-five percent of key informants also disagreed that benefits derived from forest restoration and carbon markets should go mostly to the poor, because a wide range of stakeholders engaged in forest restoration need to be provided with financial incentives. Payments should be based on actual efforts in reforestation and enhancing carbon stock, and not on well-being status.

## 9 Discussion and conclusions

Our report shows forests playing important roles in biodiversity conservation and providing food and incomes for local people in Nandi County. However, like many other parts of Kenya, forests in Nandi also face serious threats from major drivers of deforestation and forest degradation, including agricultural expansion, illegal timber extraction and grazing, and weak governance (McCarthy and Tacconi 2011; Kissinger et al. 2012). While forestry documents acknowledge the roles forests play in providing food and nutrients, these roles are not recognized in the Nandi Nutrition Action Plan issued by the Department of Health and Sanitation of Nandi (2018), which overlooks potential to promote synergies with the forestry sector. Fostering cross-sectoral coordination is essential for forestry-based mitigation options to contribute to the food and health agenda.

Our paper shows Nandi stakeholders addressing drivers of deforestation and forest degradation by implementing national policies on forest restoration and the environment, as well as implementing local initiatives from various actors, including government agencies, the private sector, community groups and international organizations. However, as key informants and community members participating in FGDs highlighted, these policies and initiatives have all been hampered by lack of involvement, inconsistent policies, and weak coordination between different stakeholders.

Addressing deforestation in Nandi necessitates strengthening existing policies regulating the harvesting, cutting and sale of tree products and certain tree species, and improving subsidy policies to include forestry and agroforestry practices (Jalang'o et al. 2023).

Our paper also shows local people in Nandi having livelihoods and incomes from multiple sources, but their lack of financial capacity to invest in and maintain incomes from fishponds and beekeeping has increased their reliance of forest resources. Our paper also highlights local people having limited market access, with most of the non-timber forest products they produce not being sold in markets.

While the Nandi County Government prioritizes developing public-private partnership business models for seedling provision and nurseries in forestry restoration activities (Mumina and Bourne 2020), it is important to help local people improve their value chains and market access by improving marketing and packaging services.

Community forestry is an effective approach for protecting forests (Kahsay and Bulte 2019; Sarkki et al. 2019; Okumu and Muchapondwa 2020), and in Nandi, local organizations like CFAs and WRUAs play important roles in implementing forestry-based interventions. However, they need support to improve their capacity, and financial resources (Koech et al. 2019).

Unclear land tenure could also intensify land-use conflicts between communities in Nandi, and between those in Nandi and their neighbours (Chabeda-Barthe and Haller 2018), which could lead to forestry-based mitigation options becoming ineffective. Future forestry-based mitigation options for low-emission food systems should address community concerns over their limited involvement in decision making; insecure land tenure; and benefit sharing arrangements.

Sustainable forestry and food production systems also need sustainable financing mechanisms (de Freitas et al. 2017; Harahap et al. 2017; Vlek et al. 2017; Abman 2018; Sans et al. 2018; Makanji and Oeba 2019; Seymour and Harris 2019). Our paper also shows Nandi stakeholders expecting forest restoration efforts to generate financial benefits, including from carbon markets. Nandi County Government agencies are mandated to develop payment for environment services schemes for carbon sequestration services,

and promote carbon financing (Kenya Forest Service 2015). However, previous studies have pointed out that it is unclear how small-scale farmers who implement low-emission agriculture practices such as agroforestry can benefit from carbon schemes (FAO 2014). Any future carbon financing schemes need to address factors that stakeholders in Nandi feel could hamper benefit sharing mechanisms, including contradictory laws and regulations; vested political interests; low enforcement capacity; poor coordination between stakeholders; financial constraints; the lack of involvement of local people in policy and project design and implementation; and a lack of understanding of carbon markets. Other work has highlighted similar challenges.

While authors have found forests in Nandi having significant carbon stock potential (Obonyo et al 2023), and advocated for a carbon market in Nandi (Gibson and Joel 2017), our findings highlight the need for further research to assess the potential impacts of any carbon market on communities in Nandi, and the enabling conditions required for it to have positive impacts on both forests and local people. Linkages between carbon and biodiversity also need to be examined in the Nandi context so appropriate policies and projects can also enhance biodiversity rather than focusing solely on carbon outcomes.

To sum up, the forestry sector and forestry-based mitigations options can contribute to low-emission food systems in Nandi. Doing so, however, will require enabling conditions, including having effective policies in place; attractive financing schemes and incentives for people to protect forests; and approaches for diversifying income sources. Inclusive decision-making processes will also be necessary to allow the forestry sector to meet its full potential for low-emission food systems.



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DOI: 10.17528/cifor-icraf/009058

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This report provides an overview and profile of the forestry sector and stakeholders in Nandi County, Kenya, and how they can contribute to low-emission food systems in the region. It also presents Nandi forestry stakeholders' views on challenges to, and opportunities for forestry-based mitigation options. The study employed both quantitative and qualitative methods by collecting and analysing primary and secondary data. Primary data was collected from in-depth interviews with key informants, and focus group discussions (FGDs). A structured questionnaire was used for key informant interviews. Secondary data was derived from previous publications and gray literature on the forestry sector.

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