POLICY BRIEF

Enhancing Forest Monitoring for Sustainable Forest Management: Perspectives and Policy Recommendations from the Regional Conference on enhancing forest monitoring for sustainable forest management in Southern Africa

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Cover image: Enforcement action against illegal firewood trading and transportation in Chiredzi District, Zimbabwe.

1 PREAMBLE

Southern Africa's forests are under increasing pressure from deforestation and degradation due to planned and unplanned developments, agricultural expansion, mining, tobacco curing and illegal logging, among other causes. Such activities threaten ecosystem integrity and the livelihoods of communities that depend on forest resources across the region. It is against this background that, on 30 October 2024, the Zimbabwe Forestry Commission (under the Ministry of Environment, Climate and Wildlife) in partnership with the Socio-Ecological Observatory for the Study of African Woodlands (SEOSAW) and the Miombo Network convened a regional workshop on the subject in Harare, Zimbabwe. The overall objective of the Conference was to dialogue, share knowledge and develop innovative strategies for sustainable forest management. Its specific objectives were to:

a. Explore innovative methodologies and tools that enhance forest monitoring effectiveness.

b. Identify key challenges in sustainable forest management.

c. Facilitate dialogue and collaboration among researchers, policy makers and practitioners involved in forest management.

d. Develop practical policy recommendations to strengthen capacity for effective forest management.

Conference participants included researchers, policy makers, practitioners, civil society, and the private sector. The participants included local, regional and international experts on sustainable forest management in southern Africa. The meeting consisted of in-person and virtual paper presentations and moderated sessions.

2 POLICY RECOMMENDATIONS

Policy recommendations were made in the following focal areas: forest inventory and monitoring; Forest Stewardship Council certification; and Nationally Determined Contributions.

2.1 Forest inventories and monitoring

2.1.1 The challenges

Permanent Sample Plots (PSPs) are designated areas within a forest that are permanently marked and regularly remeasured over time. They allow researchers to monitor changes in tree growth, mortality, regeneration and overall tree health—and provide crucial data that underpins sustainable forest management. The purpose of PSPs is to track long term changes in forest characteristics such as tree density, volume, species composition, growth rates, land use change and climate related impacts on ecosystems and biodiversity. The plots also provide unique long term datasets that can be used to develop forest growth and yield models. Challenges associated with PSPs include the following:

a. They require considerable funding and technical expertise given their complexity and long-term nature.

b. Their products (e.g. maps and graphs) are usually presented in complex, scientific formats that are not intuitive for some key stakeholders (e.g. policy makers) to easily interpret and implement.

c. There is a "preservationist" bias in the placement of the PSP locations (e.g. in protected areas) to ensure PSP longevity, but this affects how generalisable the results are to other landscapes that are under-sampled (e.g. communal and private land), affecting the representativeness of the information and data from the plots.

d. PSPs do not cover all land tenure systems (national parks, gazetted forests, communal land and private land) and ecosystems.

2.1.2 Recommendations

a. Appropriately package and communicate key forest inventory and monitoring products to enhance their utility to key stakeholders.

b. Match PSP results (e.g. on national forest cover changes) with realities on the ground through more representative sampling coupled with effective ground truthing for better decision making. This will also improve the accuracy and relevance of National Biodiversity Strategies and Action Plans (NBSAPs).

c. Enhance collaboration among different land use owners/users and national, regional and international institutions involved in forest inventory and monitoring for data and expertise sharing.

d. Implement effective forest governance, management and monitoring systems that embrace all stakeholders.

e. Anchor key decisions on forest monitoring, management and conservation on forest science founded on research, professionalism and international best practice.

2.2 Forest Stewardship Council certification

2.2.1 The challenges

Forest Stewardship Council (FSC) certification is a voluntary market tool that verifies that a forest, or forest product is managed in a holistically sustainable way. It helps to ensure that forests are managed to meet environmental, social, and economic standards. To be certified, forest resource owners or companies undergo an on-site audit by a certification body that produces an audit report and decides on certification. Once a forest is certified, its deforestation is prevented by setting harvest levels based on growth rates and is motivated by an incentive-based market system. In Zimbabwe, FSC certification was implemented with relative success in some exotic timber plantations. However, the tool did not work as well when applied in a natural gazetted forest in the western part of the country. This is partly related to the relatively high cost of obtaining and maintaining FSC certification, limited market incentives and lack of training.

2.2.2 Recommendations

Notwithstanding the foregoing challenges, FSC certification can facilitate the sustainable management of forest resources. It is therefore recommended that the tool be revisited and explored as a sustainable forest management enabler in selected forests of Zimbabwe and beyond under different land tenure systems.

2.3 Nationally Determined Contributions

2.3.1 The challenges

Nationally Determined Contributions (NDCs) are national action plans produced by countries under the Paris Agreement. Zimbabwe submitted its first NDCs in 2015 which became official in 2017. The NDCs were revised in 2021 setting a target of reducing emissions by 40% by 2030. Funding presents a major challenge to implementation, estimated at USD 12 billion. Contributions of Zimbabwe's woodlands to meeting NDCs were discussed in two themes: improving energy efficiency in households and forestry and land use management. Clean cook stoves were proposed as an effective means of reducing emissions, improving health and reducing fuelwood harvesting, as well as opportunities for carbon credits. Unfortunately, uptake of these stoves has been low.

Sustainable forestry management could boost carbon sequestration as well as reduce carbon emissions from wildfires. However, afforestation efforts have often been problematic due to reliance on exotic species, inadequate community involvement, resource limitations, and insecure land tenure—all of which undermine survival and long-term impact.

While carbon markets hold significant potential, several challenges have constrained progress. Complex regulatory requirements, limited technical capacity, high transaction costs, and issues of land tenure and benefit sharing discourage participation. Fluctuating international carbon prices and weak domestic frameworks further reduce confidence, delaying opportunities in this sphere.

2.3.2 Recommendations

Global market financing through public-private partnerships was recommended as a possible funding source to promote improved clean cook stoves in Zimbabwe. However, adoption has remained low due to affordability and accessibility barriers. Some communities have innovated with DIY stove models using locally available resources such as earth bricks and mortar, which are inexpensive but often lack durability. By contrast, commercial models cost up to USD 45 per unit—unaffordable for most rural households—and are mainly distributed as donations by NGOs and companies such as CICADA to claim carbon credits. This does not create sustainable market demand, as many households continue using open fires that require no cash outlay.

Promoting adoption will require striking a balance between affordability, functionality, and sustainability through locally adapted stove designs, subsidies, carbon finance, and stronger engagement of women's groups and local entrepreneurs.

The need for representative, well-monitored long-term data to inform accurate reporting of emissions is critical—requiring partnerships and collaborations. Local community inclusion is also key, both in the design and uptake of clean cook stoves and in sustainable forestry management across all land use types.

Figure 1: Commercial clean cook stove model — often distributed free of charge by NGOs and private companies to reduce household firewood consumption, with some initiatives linked to carbon credit programmes

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