

POLICY BRIEF

JULY 2020

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WOODFUEL CHALLENGES IN TANZANIA – ADDRESSING DEFORESTATION AND FOREST DEGRADATION

LESSONS AND RECOMMENDATIONS FROM GCCA TANZANIA

This policy brief is based on the experience of five climate change adaptation projects in Tanzania financed under the EU-funded Global Climate Change Alliance (GCCA) and implemented in the period 2015 to 2019. The GCCA projects were located in different agro-ecological zones and have

all worked on interventions that aim to minimize deforestation and forest degradation. The policy brief outlines the successes achieved and challenges encountered and provides key messages and policy recommendations for the sustainable management of forests and woodlands.

The five GCCA Tanzania projects are:

- **Community Forests Pemba** – Scalable Resilience: Outspreading Islands of Adaptation (WETE, Pemba Island)
- **EcoACT** - Eco-Village Adaptation to Climate Change in Central Tanzania (Dodoma)
- **ECOBOMA** – A Climate Resilient Model for Maasai Steppe Pastoralists (Arusha)
- **IGUNGA ECO-VILLAGE PROJECT** (Igunga)
- **Integrated Approaches for Climate Change Adaptation in the East Usambara Mountains** (Muheza)

GCCA+

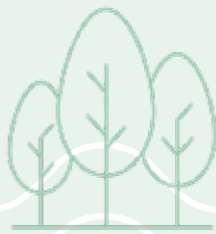
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TANZANIA



KEY MESSAGES

- Cooking food at household level is characterized by a large dependence on biomass (mainly firewood and charcoal) which accounts for 90% of the total energy demand of households.
- Charcoal production is a major income generating activity in rural Tanzania with an estimated value of EUR 841,800,000. However, the charcoal sector is largely unregulated and a major contributor to forest degradation.
- Climate change events like prolonged droughts and increased heavy rainfall directly affect crop yields of rural farmers, requiring them to expand their agricultural fields and leading to increased investments in unsustainable activities like uncontrolled charcoal production and selling firewood.
- Compliance with local natural resources management (NRM) plans and by-laws is generally low due to limited human and financial resources and lack of awareness and technical know-how as well as the focus of government on delivering social services.
- GCCA support for Participatory Natural Resource Management (PNRM) plans and related capacity building has shown promising results in reducing deforestation.
- Future pressure on scarce land resources may put pressure on villages to change the land use of designated protected forest areas to other uses like agriculture.
- GCCA support for fuel efficient firewood stoves has shown that this can help reduce pressure on local forest resources, with high reductions on firewood use reported by beneficiaries. Wide scale adoption is likely when the right design is used, based on using local materials.
- Biogas can contribute to reducing pressure on forests but the high investment cost means that wide scale adoption is only possible with significant subsidies. Such investments may only be justifiable in specific areas like arid pastoralist zones with very limited wood resources.

KEY RECOMMENDATIONS

- Mainstreaming climate change issues in forestry policies is key for sustainable forest management. This should include aspects that indirectly contribute to reduced deforestation such as climate smart agriculture and agroforestry.
- Participatory Natural Resource Management (PNRM) plans should be supported at regional, districts and community level, including the introduction of forest-based enterprises and ecological friendly technologies and practices.
- Sustainable NRM and protection of designated forests requires coordination between sectors at district, regional and national level, e.g. through the Land Use Planning Commission.
- To promote the sustainable management of local forests, the control and tenure of communities over forest resources should be increased.
- There is a need to promote and strengthen, in a sustainable manner, the use of fuel-efficient firewood and charcoal stoves.
- Promotion of sustainable forest-based enterprises such as eco-tourism, butterfly farming and beekeeping as alternative sources of incomes for communities close to forests provides incentives to protect the forest resources and helps minimise the overdependency of firewood and charcoal making as sources of income.

INTRODUCTION

Forest and woodlands in Tanzania cover about 48.1 million ha which is 54.6% of the total land area and the country has an estimated total of 77.2 billion trees in various landscape. Currently, the country experiences a deforestation rate of around 470,000 ha/year, contributed mainly by agricultural expansion and household biomass energy needs. These energy needs are still largely met through biomass in the form of firewood and charcoal. Firewood and charcoal are the main cooking fuels in rural (84.8% of households) and urban (60.5%) areas respectively.

Charcoal production in particular is a major contributor to forest degradation. The charcoal sector is poorly regulated with the people and processes along the charcoal value chain interacting with different government bodies, policies and laws, all of which operate at national, local and village level. National and local governments are estimated to lose about EUR 84,350,000 per year due to failure to effectively regulate the charcoal sector. Charcoal is an important source of income for the rural poor with an estimated value of EUR 841,800,000 per year, larger than any export commodity.

Some of the policies and strategies that guide the forestry and charcoal sector include the National Energy Policy of 2015, the National Forest Policy of (1998 with a revised draft of 2019) and the Environmental Policy (1997). Other national pertinent policies and strategies include the National Wood Fuels Action Plan of 2009, Guideline on Sustainable Harvesting and Trade in Forest Products of 2015, Forest Regulations of 2015, Charcoal Regulations of 2006, the National Strategy for Gender Development of 2008, the National REDD Strategy of 2013 and Climate Change Strategy of 2012.

One of the objectives of the GCCA Tanzania programme was to improve forest management. The five GCCA projects promoted various interventions aimed at reducing forest and woodlands degradation. Projects provided support to tree nurseries and transplanting trees to either community lands or individual household plots. The projects also worked on forest management plans, community forest establishment, curbing charcoal production, introducing Farmer Managed Natural Regeneration and promoting fuel efficient stoves.

CHALLENGES

Climate change impacts

Extreme drought, late arrival and short period of rainy seasons, and increased intensity of rainfall events may force farmers and livestock keepers into uncontrolled charcoal production as an alternative source of income, which in turn devastates forests and woodlands. This type of adaptation has been observed in the GCCA projects, in particular during and after the 2016/2017 rainy season that was characterised by long drought periods.

Non-compliance with natural resources management plans and by-laws at local level

Poor management of forests on village land and in adjacent government forest reserves can be attributed to a lack of awareness and technical know-how, limited human and financial resources, as well as the focus of government on the social sectors. Most LGAs plans and related government budgets are targeting delivery of social services such as

education, health, roads, etc.) whereas most ongoing NRM activities are donor funded.

Where plans and related by-laws do exist, it is often difficult to ensure compliance due to socio-cultural issues, capacity constraints and pressure to use scarce land resources for activities with more direct economic benefits.

Lack of secure community tenure over land and forest resources

The National Forest Policy of 1998 (and its incomplete draft of 2019) promotes participatory forest management by providing a means to engage local communities living adjacent to forests into shared responsibilities and benefits. However, the processes involved in establishing a community-based forest management (CBFM) for village land forest reserves are complex, making it difficult for communities to fully embrace the idea of CBFM.

In spite of promises from the Government, there have also been delays in providing title deed and village land certificates to communities, which makes it difficult for villagers to invest in sustainable use of the land and other natural resources.

Limited affordable energy efficient technologies

Wood fuel is the main source of energy both in rural and urban areas. A lack of alternative and affordable sources of energy has contributed to the degradation of natural forests due to practically uncontrolled harvesting of wood fuel and the use of inefficient methods like the 3-stone stove.

The East Usambara, Igunga, EcoAct and CF Pemba projects have introduced fuel-efficient stoves for local households. Apart from the benefit of reducing pressure on forest resources (beneficiaries are reporting an average of 50% reduction in firewood use across the projects),

the stoves also provide other advantages such as spending less time in collecting firewood as well as less smoke inside the dwelling.

Experience from the GCCA projects indicates that introduction of biogas technology may be most effective in areas where there is a real scarcity of firewood like in the arid zones in the Arusha and Meru districts where the EcoBoma project was implemented.

POLICY RECOMMENDATIONS

Mainstreaming climate change into forest related policies

Climate change issues have to be mainstreamed into forest policies. GCCA promoted interventions like Climate Smart Agriculture and agroforestry can reduce the need for continued expansion of agricultural land and should therefore be recognised in forest policies as a way to reduce deforestation.

Forest related policies (that include the National Forest Policy (1998), Draft National Forest Policy Review (2018), National Beekeeping Policy (1998), National Environmental Policy (1997), National Land Policy (1995), Wildlife Policy (1998), National Agriculture Policy (2013) and National Water Policy (2002)) should further promote ecologically friendly and climate resilient forest-based enterprises for forest adjacent communities. A good example is

the eco-tourism and beekeeping activities that the East Usambara project set up, which provide income to communities and act as an incentive to sustainably manage the forest resources on which they depend.

Promote Participatory Natural Resources Management (PNRM) planning and enforcement of related by-laws

The importance of PNRM plans should be recognised in all natural resources related policies, including forestry, land, wildlife, agriculture, water, energy and rangeland policies. Coordination with other sectors at district, regional and national level, for example through the Land Use Planning Commission, is key to coming up with strong integrated PNRM plans. Project experience indicates that effective implementation of such plans is helped by transferring responsibilities and resources (financial and human) to local authorities and building their capacity.

Provision of tenure rights to communities

Providing local people with greater tenure security can increase their willingness and ability to invest in sustainable management of their forests and woodlands. The Forest Policy statement 39 stipulates that "Local communities will be encouraged to participate in forestry activities. Clearly defined forest land and tree tenure rights will be instituted





for local communities, including both men and women (URT 1998 ; URT, 2008)". However, the processes for provision of secure tenure are still a challenge and should be simplified.

Promote use of energy efficient stoves

The National Forest Policy should support the scaling up of energy efficient technologies including the ones for charcoal production. Technologies such as fuelwood energy saving stoves designed and purposely introduced to replace the traditional cook stoves will improve efficiency in fuelwood consumption, reduce smoke from the kitchen room and reduce pressure on local forests. The experience of the GCCA projects can help in identifying the best type of fuel efficient stoves for a specific agro-ecological zone and the most effective approaches to promote them, for example by making their use mandatory through local by-laws.

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