Transforming Tanzania's Charcoal Sector

Charles Meshack
Executive Director
Tanzania Forest Conservation Group
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Tanzania Forest Conservation Group
Shirika la Kuhifadhi Misitu ya Asili Tanzania

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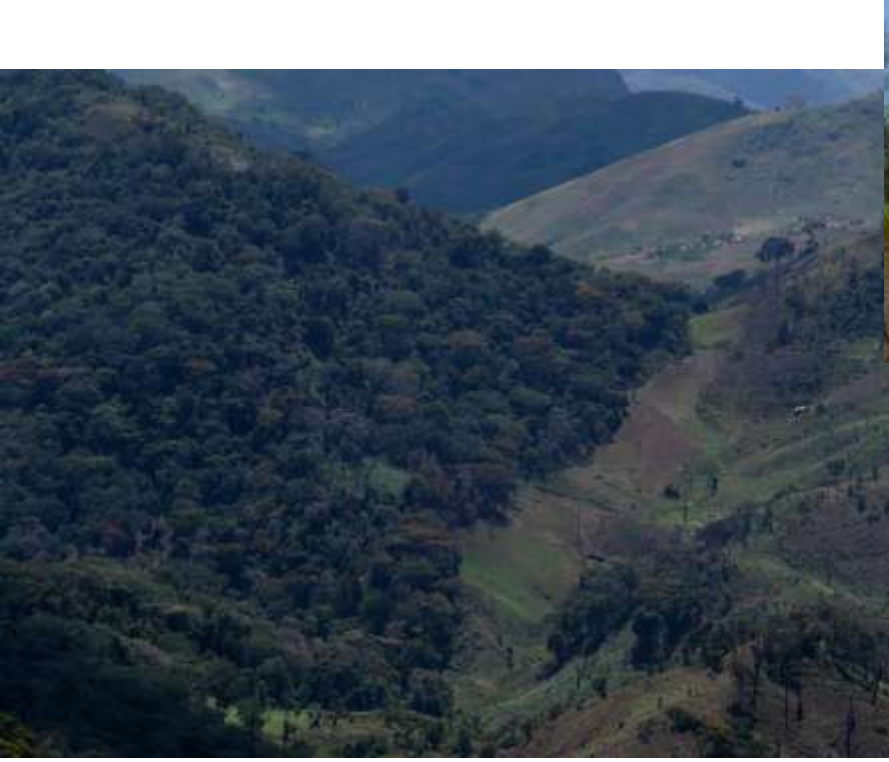
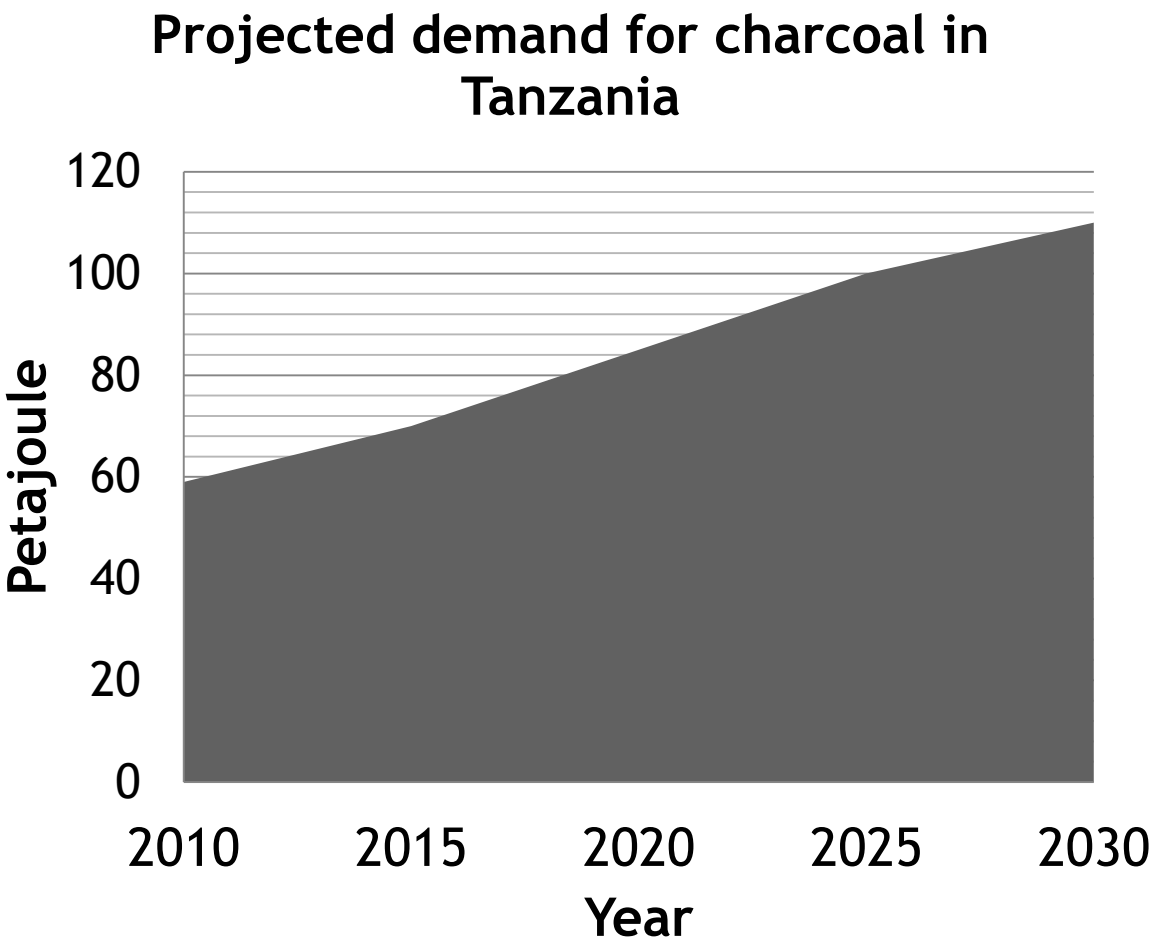
Uncontrolled charcoal production is a major driver of deforestation in Tanzania



BUT agriculture is by far the most widespread driver of deforestation

If woodlands on village land are going to compete with agriculture as a land use, they need to bring more tangible benefits to communities.



Demand for charcoal in Tanzania is projected to increase over the next 20 years due to rapid urbanisation and population growth

Transforming Tanzania's Charcoal Sector: Project Hypothesis / Theory of Change

The charcoal value chain can be transformed to:

- **Incentivise** sustainable forest management;
- **Reduce** deforestation;
- **Improve** rural livelihoods;
- **Increase** resilience to climate change.

TTCS Project Goal

Delivering sustainable development and benefits to rural communities in Tanzania through enhanced environmental sustainability from better biomass harvesting and through more efficient production technologies and biomass energy-friendly energy sector policies.

TTCS Project Outcomes

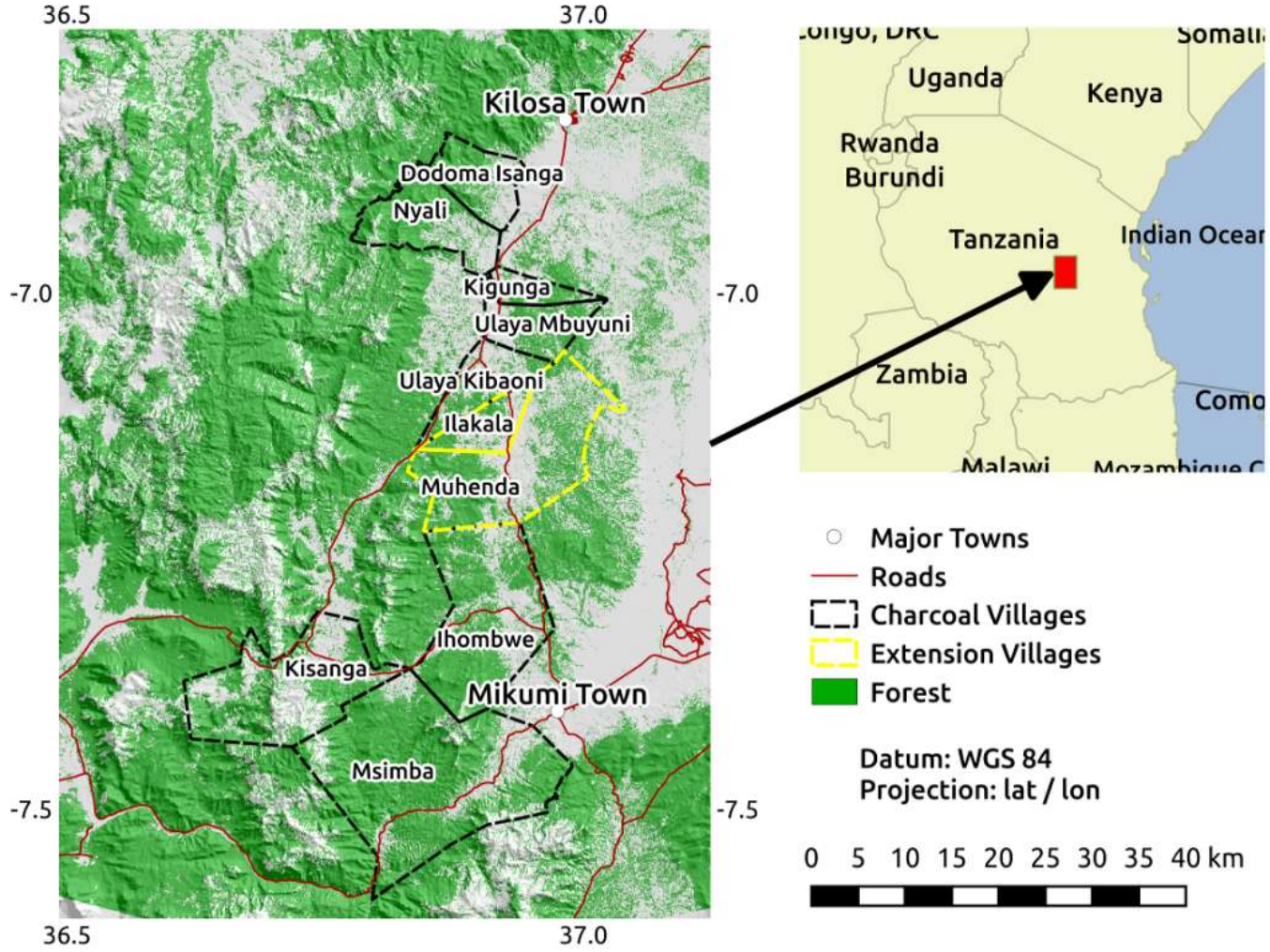
Outcome 1 - Sustainable charcoal

Commercially viable and pro-poor value chains established for legal and sustainably sourced charcoal by applying the making markets work for the poor approach (M4P)'

Outcome 2 – Biomass Energy-related Research, Knowledge Management and Governance

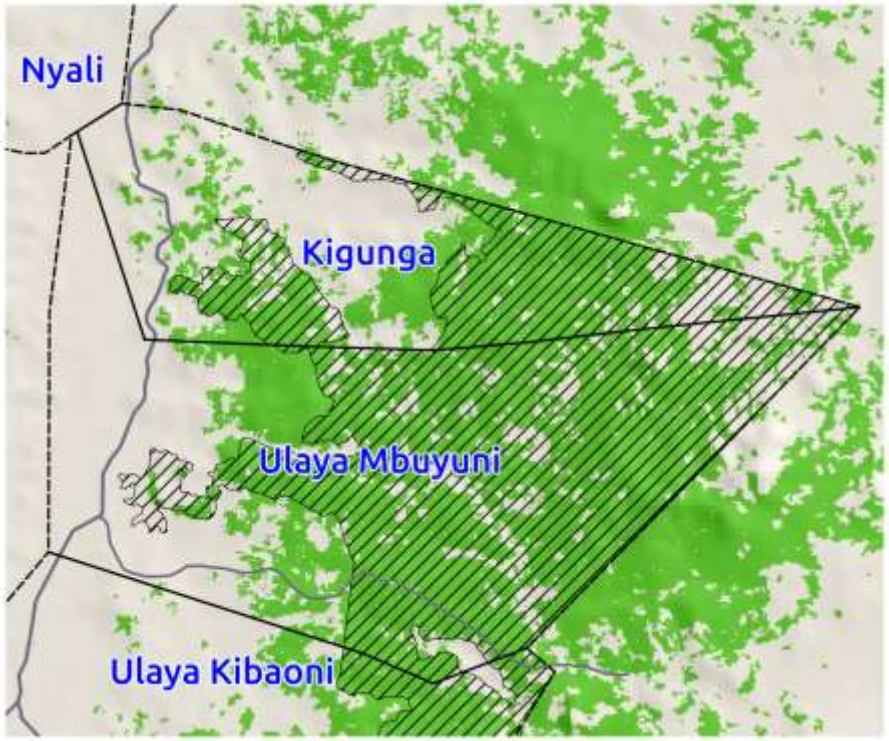
Credible data and analysis communicated through coordinated advocacy leading to more biomass-friendly governance of Tanzania's energy sector.

TTCS Project Location



10 villages in **Kilosa District** Morogoro Region

The MJUMITA Sustainable Charcoal Model



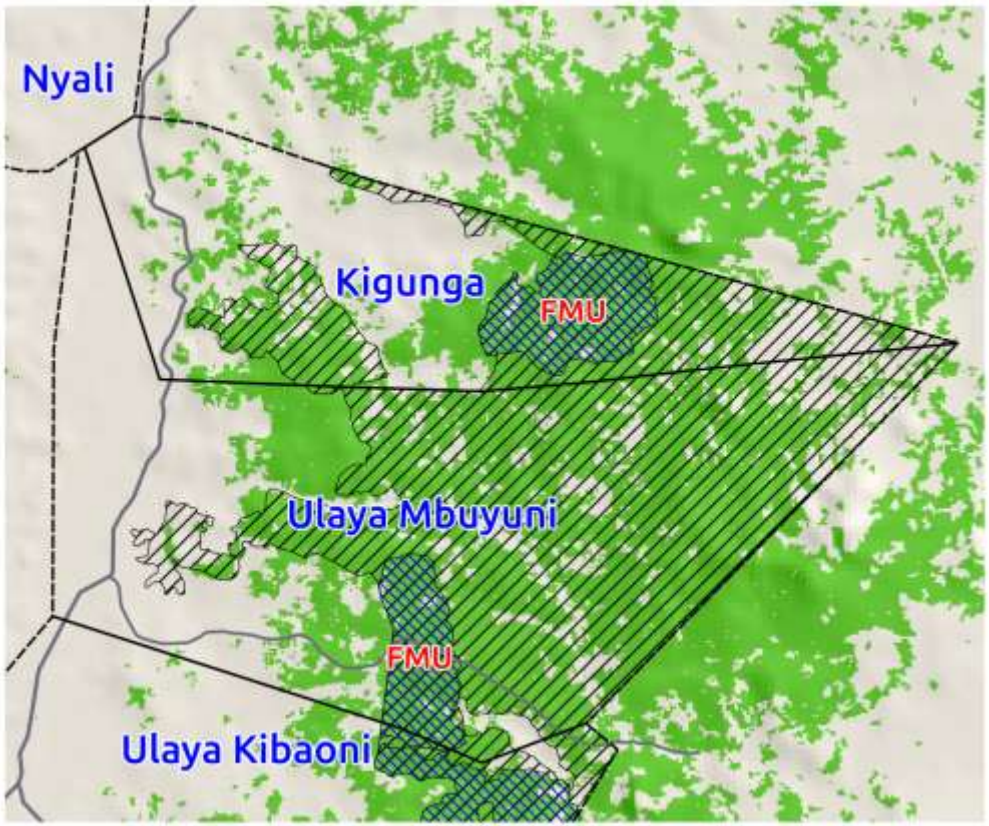
= woodland

= Village land forest reserves

Step 1. Conduct village land use planning and establish village land forest reserves

Results in Kilosa

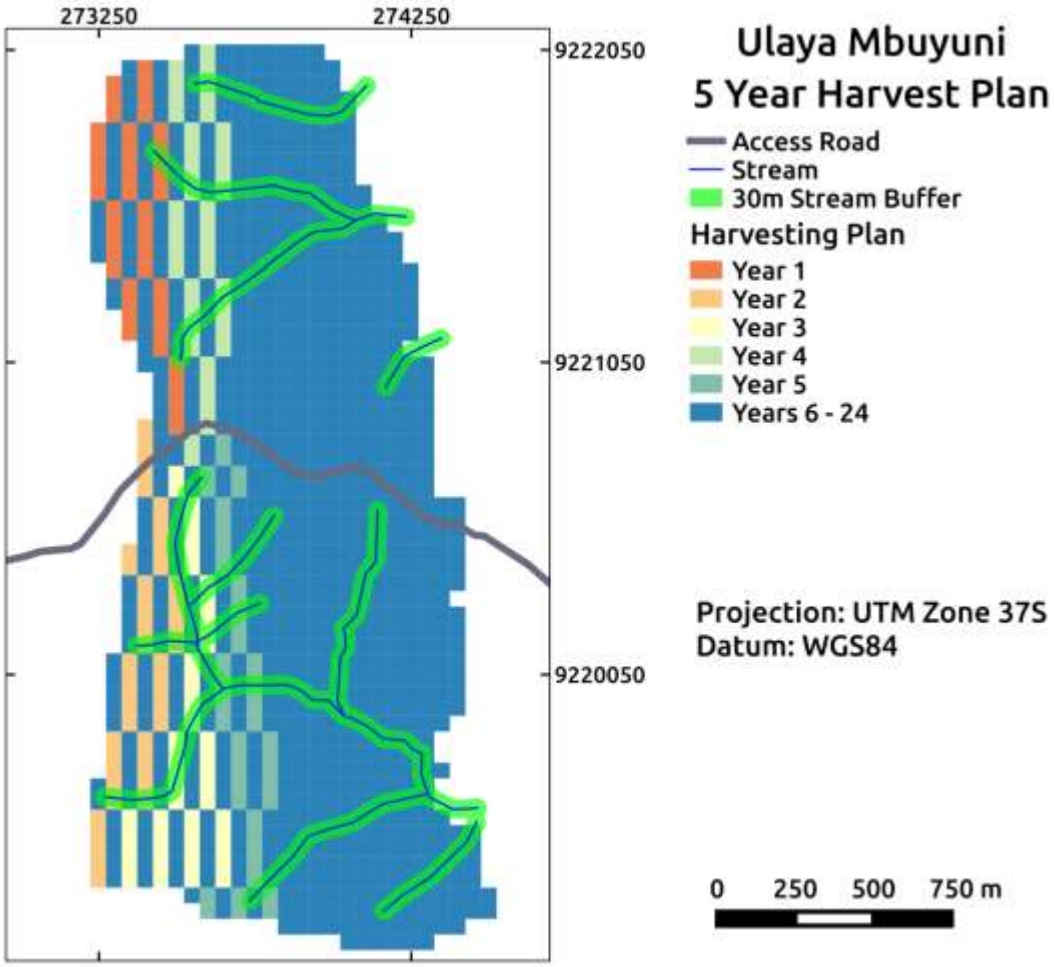
8 villages with village land use plans and village land forest reserves covering 59,958 ha



Step 2. Integrate charcoal forest management units in the Village Forest Reserves i.e. areas designated for sustainable charcoal production

Results in Kilosa

6,040 ha of woodland designated for sustainable charcoal production ~ 10% of the VFRs



Step 3. Map out coupes within each FMU and assess stock

Village Natural Resources Committees trained to assess and mark out coupes

Producers trained to use improved basic earth kilns (555 producers trained in Kilosa)

FMUs managed to allow regeneration over a 24 yr harvesting cycle.

Regeneration is based on **coppicing**.

- 70 to 100 % of harvested stumps in wet miombo woodland will coppice;
- faster than growing from seed as root stock is already well-developed.

Model is not applicable in high biodiversity Coastal and Eastern Arc Mountain forests.

Training on financial management and record keeping

Step 4. Establish good governance for the reserves

Permits issued based on annual harvesting quota for that year's coupe

Transparent procedures for issuing permits and record-keeping

Fees retained by the villages

By-laws enforced rigorously

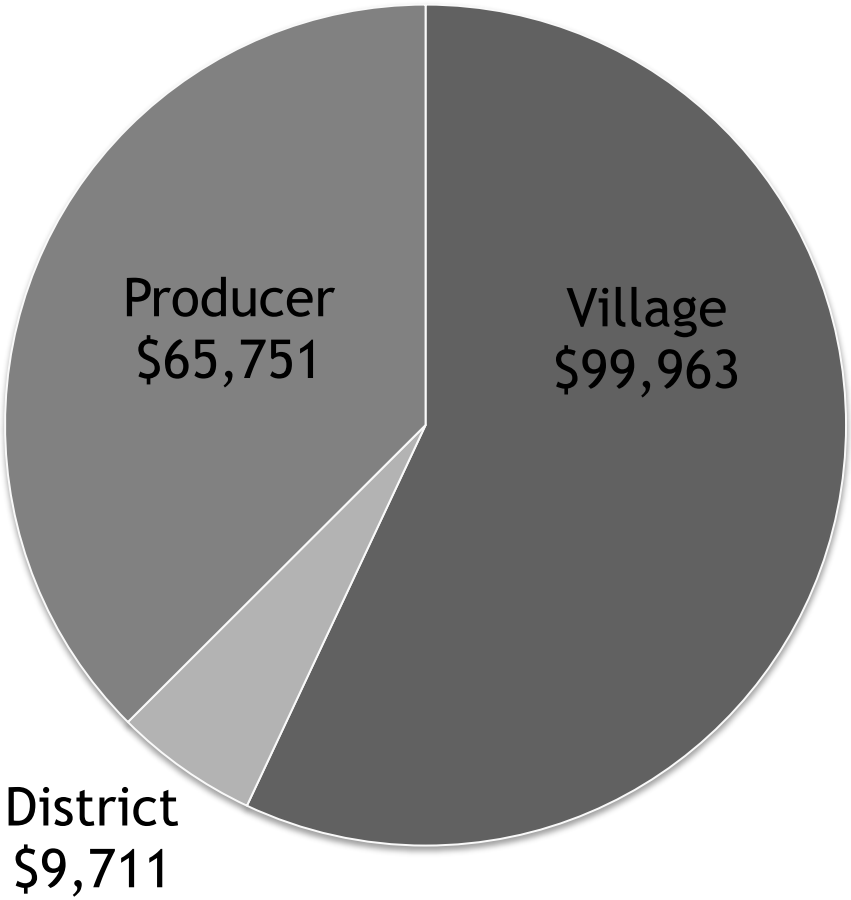
8 villages in Kilosa operating the permitting system successfully

Step 6. Producers sell their charcoal to transporters.

Step 7. Transporters demonstrate that the charcoal has been sourced legally from a sustainably managed VFR for exemption from TFS royalties at natural resources check-points along the highway by showing:

- Transport permit
- Production license

Revenue distribution in the 8 villages



Construction of medical officer house at Ihombwe Village

Purchasing solar-powered lightning system for the Ihombwe dispensary

Revenue from fees pays for forest management and community development projects

Community development projects are agreed in village assembly meetings

Motorbike for patrol teams and VNRCs

Challenges and barriers

Absence of a clear, consistent national policy or strategy on charcoal and other forms of biomass energy

Project villages are an island of legal, sustainable production in a sea of illegal / informal production.

- Production from the 8 villages is ~ 0.1 % of the ~ 1.3 million tonnes / yr of charcoal consumed in urban areas.

More effort is needed to manage charcoal production and monitor the origin of charcoal being traded.

Producer incomes are still low.

Challenges and barriers

- Is there a contradiction in TFS's responsibility to promote CBFM; and its dependence on revenue derived from permits for harvesting in village land?
- Negative stakeholder attitudes towards sustainable charcoal;
- Even if sustainable charcoal were implemented across Tanzania, it would still not meet the growing demand – other strategies are needed in addition to sustainable charcoal production;
- Agricultural strategies promoting the conversion of forests to agriculture result in the conversion of valuable forests and woodland into marginal agriculture; need for a policy shift.

Opportunities and enabling factors

Experiences from Kilosa show that a formalised, sustainable charcoal value chain:

- is competitive even in the current market;
- can deliver significant revenues for community development;
- can incentivise and enable communities to manage large areas of woodland and forest on village land.

Opportunities and enabling factors

With 15 – 20 million ha of woodland on village land; of which 2.3 million ha are already in >800 village land forest reserves, there is significant potential to scale up;

Managing natural woodland for charcoal production is a more cost-effective and pro-poor approach to sustainable charcoal production than creating new tree plantations;

Sustainable charcoal production can diversify rural livelihoods and thereby increase resilience to climate change.

Recommendations

Way forward - TTCS Phase II

Scale up sustainable charcoal production by introducing the model in villages in other districts – high potential areas include Morogoro, Coast and Lindi Regions;

Increase the evidence-base for the model and systematically test modifications and improvements;

Facilitate stakeholder collaboration to identify gaps / contradictions in policy and policy implementation in order to create a more supportive policy framework;

Support more rigorous law enforcement to reduce the flow of illegal and unsustainable charcoal.

Way forward - TTCS Phase II

- Findings from this workshop will contribute to the design of TTCS Phase II with a proposed start date of 1st September 2015;
- The Swiss Agency for Development and Cooperation has financed the TTCS project since 2012.
- SDC would like to join hands with other donors to support TTCS Phase II.

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