

Land rehabilitation through reforestation – the power of property rights in the green wood energy value chain

SUMMARY

Meeting the rising wood energy demand is a challenge and driver for deforestation and forest degradation. Forest landscape restoration (FLR) & AFR100 commitments also address the sustainable production of wood energy to meet social and economic realities.

This solution applies a holistic view of the wood energy value chain by addressing all stakeholders in an adapted manner. Smallholder afforestation is at the heart of the solution. It combines legal, governance, economic and technical elements of the whole value chain all the way to end-consumers & related combustion technology (improved cook stoves).

It modernizes the wood energy value chain and generates benefits for forest stewards, producers of improved stoves and end consumers alike. Their annual income has doubled on average.

BUILDING BLOCKS

- 1 Land security for tree planters
- 2 Village-based individual reforestation schemes
- 3 Optimizing kilns technologies
- 4 Marketing of labeled green charcoal
- 5 Optimizing combustion technologies
- 6 Creating conducive policies and laws

HOW DO THE BUILDING BLOCKS INTERACT?

The allocation of clear land tenure rights to communities (BB1) provides the basis for the village-based individual reforestation schemes (BB2). The combination of sustainably managed fuel wood plantations with the introduction of optimized kiln technology (BB3) allows setting up the marketing of a green-labelled charcoal product (BB4). The optimization of combustion technologies (BB5) via improved cook stoves allows reducing pressure on forest resources (BB2) and costs for charcoal purchase (BB4). Creating conducive policies and laws (BB6) is a parallel process that strengthens the current green charcoal value chain and promotes further scaling up in the future.

BENEFICIARIES

- 4,200 individuals from ~70 villages (reforestation)
- 275 charcoal producers (members of local trade cooperatives)
- 12,500 households (~42,000 people) use improved cook stoves
- 40,500 people have access to better wood energy

IMPACTS

Social & economic:

- 40,500 people in Antsiranana have access to sustainable household energy; they benefit from reliable supply, lower fire & health hazards
- 12,500 households use improved cook stoves; they save ~1,600 t of charcoal p.a.
- The economic situation of landless poor and women was strengthened
- Regional development was strengthened by innovative community organization and empowerment

Environmental:

- 4,200 households afforested 9,000 ha of wasteland around 68 villages; soil fertility and water retention has been improved
- Sustainable wood fuel production on 9,000 ha already offsets unregulated exploitation of more than 90,000 ha of natural forests
- About 1,000 ha of forest area are sustainably used per year. A total of 4,700 t of green charcoal can be produced



Aichi Targets



Sustainable Development Goals



AFR100

