Sustainable Management of Wood Energy Resources in the Mahafaly landscape Spiny Forests

Three years (June 2016–June 2019) to ensure the sustainability and scaling up of sustainable fuel wood production, marketing and consumption practices.

Background

Wood energy is a vital resource for almost all Malagasy households for everyday cooking, in the form of charcoal or firewood. In rural areas, firewood is the most common fuel, while in urban and suburban consumption centers, charcoal is mostly used as it remains economically the most accessible fuel to the population, and therefore difficult to replace by other sources of energy (gas, oil, electricity, ...).

In the regions of the island where the climate is dry and hot, as is the case in the Southwest region, the forest formations are particularly vulnerable to all forms of exploitations due to an extremely slow regeneration of the natural essences constituting them. To date, 100% of the charcoal supplying the urban and suburban areas of the Southwest Region comes from the spiny forests.

In 2012, estimates have reported a need for 28,500 tons of charcoal to supply the urban and suburban population of Toliara. This requirement is equivalent to 15 000 ha of natural forests decimated, or 5% of the surface of the protected areas in the priority landscape of Mahafaly. In this forest landscape, exploitation for wood energy affects the most sensitive forest formations around the protected areas of the Landscape: about 30% of the charcoal needs of the city of Toliara are supplied by wood harvesting at the level of the Mahafaly landscape, according to current findings. Between 1973 and 2013, deforestation has affected 40% of Mahafaly’s forest cover, or 1% of annual deforestation rates.
This project is part of the capitalization of the knowledge acquired since 2008 in terms of sustainable practices in the wood energy sector in the southwest, and achieved through close collaboration between WWF and the actors in the region, namely:

- 1000ha of plantations for wood energy vocations established by village communities;
- Regional taxation and regulation of the wood energy industry adopted and whose implementation was initiated in 6 communes and 5 Management transfer sites with Wood Energy vocation (including the dissemination of improved carbonization practices);
- The adoption of wood energy saving cooking equipment by 30% of households in Toliara.

These efforts demonstrate the feasibility of the sustainable management of the Wood Energy sector and deserve to be sustained and scaled up.

To do this, the project will:

- Strengthen the mobilization and coordination capacities of the forest administration an effective and sustainable control and monitoring of the wood energy sector in the southwest;
- Establish appropriate mechanisms for the deployment of reforestation with Wood Energy vocation and involving communities of foresters;
- Strengthen the entrepreneurship of small businesses in the professional extension of their activities of production and sales of wood energy saving cooking equipment;
- Strengthen the capacities of local community structures in the sustainable exploitation of wood energy resources;
- Enhance the southwest experience to feed the framing works of the Wood Energy sector at national level.

**Project Goal**

By June 2019, the levers to enable the sustainability and scaling up of the sustainable practices in the wood energy sector are operational in the Southwest region.

**Expected outcomes**

1) The enforcement of regulation of the Wood Energy sector is effective and sustainable in the district of Toliara II and in the Wood Energy TGRN in the Betioky District.

Wood Energy Production is the object of regular control and these controls and monitoring are financially covered by the associated taxes.

2) Partnerships between local stakeholders and sustainability mechanisms are operational for the significant deployment of sustainable reforestation / plantation for wood energy vocation in the Southwest.

- The annual regional program for reforestation allows to achieve an accumulation of 400 hectares of new plantations for Wood Energy vocation, and a plan for mobilizing means for 500 ha / year is adopted by regional players for the continuity of the programme;
- The key drivers for the sustainability and scaling up of reforestation actions by associations of foresters are developed and applied;
- Communities managing forest areas for Wood Energy Vocation (TGRN) in the district of Betioky achieve an accumulation of at least 50 hectares of reforestation, and the funds to independently conduct the next campaign are mobilized.

3) Small artisanal businesses for the production of wood energy saving cooking equipment in Toliara and at the level of the Wood Energy TGRN are operational.
A total of 30,000 efficient cooking equipment are produced by 5 artisanal producers and are adopted by households in Toliara, representing an adoption rate close to 100%.

4) The experience of the southwest region supports the development of national frameworks related to the Wood Energy sector, which contribute to the consolidation of advances in the sustainable management of the wood energy sector in the southwest:

- The national regulatory framework governing the Wood Energy sector is adopted;
- The national strategy for the sustainable supply in Wood Energy is implemented;
- A system of standards on Wood Energy efficient cooking equipment is developed at national level promoting the deployment of the activities of specialized professional actors.

Project beneficiaries

- Village communities:
  - Coalmen communities relying on the Wood Energy sector. Generally, these communities are poor and illiterate, residing in villages near forests, and are dependent on natural resources;
  - Nearly 225 individuals, of which approximately 25% are women, organized into village tree planters associations, show favorable conditions for reforestation;
  - 5 Community Based Organizations (CBO) from 3 rural communes in forest management transfer sites.
- The regional forest administration and the authorized persons at village level ensure the controls all along the Wood Energy sector. The Region, the gendarmerie and the target communes, are also all involved in the regulation of the wood energy sector.
- At least 30,000 households in the city of Toliara who will benefit from actions relating to the efficient cooking equipment. The project also targets local artisans from the city of Toliara and those in the Mahafaly landscape, producers of efficient cooking equipment.

Project desired impacts

1. Stop anarchic and illegal coal activities, to benefit communities living near forest areas;
2. Self-funded / ongoing controls of the activities all along the wood energy sector through taxes collected on the products;
3. Autonomous and dynamic village structures with sustainable means to pursue the reforestation for wood energy vocation;
4. Regional Partnerships perpetuating reforestation with wood energy vocation for at least 500 ha / year of planting after the project;
5. Continuous and sufficient availability of wood energy efficient cooking equipment on the market, which are accessible and affordable to all households in the city of Toliara;
6. Achievements / experiences valued at national level.
Project partners

The project is funded by WWF-Switzerland and implemented by WWF-Madagascar Country Office.

The activities are implemented in close collaboration with:

- **Local authorities**
  - Regional Direction in charge of forests (DREEF A.A\(^1\)) Regional Direction in charge of Energy (DRE\(^2\)n A.A), the agents of the Region and CTD\(^3\).

- **Local village structures**
  - Two associations of tree planters in Andranovory and Andranohinaly; respectively: “Andranovory-Mandroso” and “Lovainafy”;
  - Five (5) CBO\(^4\) managers of the management transfer sites in the district Betioky.

- **The Private Sector**
  - Private companies contributing to reforestation;
  - Artisanal businesses producing wood energy-efficient cooking equipment.

- **Other entities**
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1. DREEF : Regional Direction of Ecology, Environment and Forests
2. DRE\(^2\)n : Regional Direction of Energy
3. Decentralised Territorial Collectivity (municipal officials, Head of Fokontany)
4. CBO: Community Based Organizations (Managers of the management transfer sites / TGRN)

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