Timor-Leste

Building resilience to a changing climate

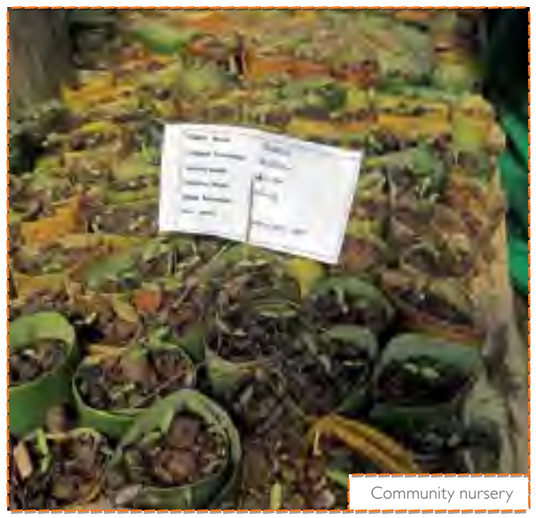
Setting the scene

As a nation emerging from a period of civil unrest and grappling with the burden of poverty, environmental degradation and inequitable land rights, the people and institutions of Timor-Leste face enormous challenges in adapting to climate change.

Timor-Leste is extremely vulnerable to weather-related natural disasters such as droughts, floods and landslides. Eighty percent of the population depend on subsistence agriculture for their food security and economic needs. As the effects of climate change intensify, production of the country's two main food crops, maize and rice, will be increasingly threatened.

Pilot location

Project activities will take place in Aileu District, one of the most degraded watersheds in Timor-Leste. Unsustainable land management and agricultural practices, and policies which reinforce uncontrolled tree-cutting, have resulted in rapid deforestation, high soil loss, and reduced water flow in local rivers. Local farming communities in Aileu recognise the urgent need to adapt farming and forestry systems to changing climatic conditions to ensure a more sustainable future. They have also expressed a desire to diversify their farming practices to include better management and marketing of forest products.



Community nursery

Pilot overview

The BRACCE (Building Resilience to a Changing Climate and Environment) project will increase environmental and community resilience to climate change through an integrated, context-specific suite of activities. It will target deforestation, land and water catchment degradation, and environmentally unsustainable agricultural and forestry practices at practical and policy levels. The project will also research some of the underlying causes of problems in these areas and conduct a detailed feasibility study on the introduction of energy-efficient and sustainable technologies, such as fuel-efficient stoves, solar lighting, water filtration, and biogas digesters for waste management.

By improving environmental and agricultural sustainability, introducing diversified forest-related income streams, and reducing the local demand for resources, this project seeks to improve household incomes and insulate local communities from the future effects of climate change.

Key project activities include:

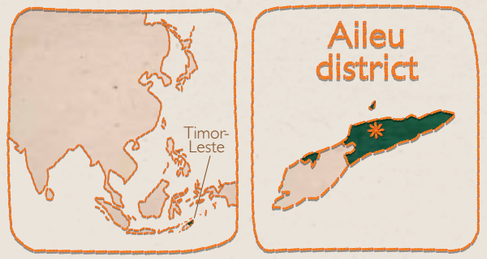
- community-based mapping exercises to clearly establish existing land use and ownership, and to identify boundaries for areas of forest restoration;
- educational workshops to teach Farmer Managed Natural Regeneration (FMNR) – reforestation through selective promotion of regrowth from existing stumps and root stock. FMNR is more reliable, faster, and requires only a fraction of the cost of planting seedlings;
- educational workshops to teach sustainable agro-forestry systems and agro-forestry business practices;
- establishment of community nurseries for production of seedlings for agro-forestry;

An integrated landscape approach to food insecurity and climate change

Increased coffee bean yields through better land management

- feasibility study regarding the establishment of community cooperatives for dissemination and maintenance of fuel-efficient stoves, solar lighting, water filtration, and biogas digesters for waste management. Cooperatives would sell these technologies at a subsidised price to provide sustainable economic growth and a sense of value and ownership;
- feasibility study to determine the relevance of carbon credits to a self-sustaining social enterprise model;
- advocating to government stakeholders to establish community rights over land managed through FMNR.

Village life in Aileu district



Pilot location: Aileu District, Timor-Leste

Pilot area: 9,000 hectares

Target population (est): 16,000

Pilot project partners:
- Local government
- Permatil
- Portuguese Mission
- Global Alliance for Clean Cook Stoves

Climate change mitigation:
- Carbon sequestration/trading
- Reforestation

Climate change adaptation:
- Flood prevention/control
- Soil erosion control
- Protecting water resources
- Natural resource management
- Food security

Project status: Pilot in progress

Pilot project cost:
US$2,602,000 over four years

Next phase:
Project extension and integration of selected fuel-efficient and renewable energy technologies, and access to the carbon market.

Funding requirements:
US$1.8 million