



Green Resources Plants Trees, Reduces Greenhouse Gasses in Tanzania Project

The African continent is losing 4 million hectares of forest land each year, for reasons ranging from conversion to agricultural use to illegal logging. This loss is responsible for more than half of the world's deforestation, contributing significantly to the increase in greenhouse gasses in the atmosphere—a prime culprit behind global warming and climate change.



In Tanzania, Green Resources, a multi-dimensional forest products company based in Norway, is reversing this trend, turning unused grasslands into forests and building a 15 megawatt heat and power plant fuelled by recycled wood waste from its sawmills, with the help of IFC's investment and advisory solutions. The company's ambitious reforestation project will create jobs and enable a significant sequestration of carbon, reducing the amount of climate change-causing greenhouse gasses in the atmosphere. The company's main Tanzanian forest is certified by the Forest Stewardship Council, and it plans to obtain certification for all plantations in Mozambique, Tanzania and Uganda to ensure that they are environmentally and socially sustainable, offer favorable working conditions, and adhere to the highest international standards. In addition, the company will make its excess power capacity available to Tanzania's national grid, helping meet growing demand for electricity.

IFC Role

- \$18 million in long term financing
- \$200,000 grant funding for feasibility study on new power plant

Environmental Benefits

- Sequestering 1.7 million tons of carbon emissions on average each year from new plantations and new power plant that runs on wood waste
- Sequestering 10 million tons of CO₂ equivalent from a single new plantation over the course of 10 years
- Developing market for carbon credits through sale of excess carbon sequestration to developed countries
- Manufacturing high-value wood products from scrap wood.

Development Impact

- 500 full-time jobs
- 5,000 Seasonal employment for the company as a whole, and 2,500 for the area receiving the loan
- Building Tanzania's commercial plantation industry, taking harvesting pressure off natural forests and creating a strong revenue stream and increased foreign exchange earnings for the country.

Green Resources Quantifies its Carbon Footprint

Green Resources has a better handle on its carbon footprint—and on the impacts of its planned renewable energy projects—after assessing cradle-to-grave carbon and greenhouse gas impacts of activities at its Tanzania operations with a new tool, IFC's Forest Industry Carbon Assessment Tool— FICAT.

What Green Resources Learned

- **Tree-planting works:** The company's tree planting strategy—on fallow grassland—is making a difference. The 7,464 hectares of eucalyptus and pine trees planted removed 146,000 tons of CO₂ from the atmosphere in 2008—exceeding by ten times Green Resources' total annual value chain emissions.
- **Renewable energy projects reduce total carbon footprint:** While the planned renewable energy projects will cause an emissions increase, the amount of avoided emissions will greatly offset this increase, resulting in a large net reduction of emission. For instance, the company's planned 15 MW CHP plant will export biomass-based electricity, which will displace more carbon-intensive electricity from the grid, avoiding over 50,000 tons CO₂ emissions each year.

How Green Resources Can Reduce its Carbon Footprint

The FICAT assessment uncovered several areas where changes would lead to improvements:

- Reduce electricity consumption by improving mill efficiencies
- Explore options for reducing methane emissions from charcoal production
- Reduce transportation-related emissions by maximizing delivery truck routes and eliminating empty return trips
- Expand plantations to accomplish large net removals of atmospheric CO₂
- Complete planned renewable energy projects



About FICAT

- Easy-to-use, downloadable tool that lets users assess energy efficiency, as well as greenhouse gas and carbon emissions of forest products sector projects, to compare their efforts to those of other companies and to identify potential opportunities for improvements.
- Unique model spans the entire life cycle, from forest beginnings through product end-of-life.
- Assessment measures emissions and estimates avoided emissions associated with ten separate aspects of operations.
- Tool developed by IFC in partnership with National Council for Air and Stream Improvement, a non-profit environmental research organization focused on the forest products industry.
- For a free download of the tool, please visit: www.ficatmodel.org

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