

**PROJECT ABSTRACT**  
**COSTA RICA**  
**TICOFRUT BIOMASS COGENERATION PLANT**  
**CR-L1071**

The Project consists of the financing of a biomass cogeneration plant to reduce emissions and save energy in a fruit processing. The overall Project objective is to reduce fossil fuel consumption by utilizing renewable, waste biomass to generate electricity and steam for the company's processing plant located in Cerro Cortes, Aguas Zarcas district, in the province of Alajuela. The estimated total cost of the Project is US\$9.6 million. The Project's financial plan includes an IDB A loan for up to US\$4.8 million under the Climate and Clean Energy Facility (CCEF) RG-X1136 and a loan from the Canadian Climate Fund (C2F) of up to US\$2.4 million.

The Project will be developed by TicoFrut S.A., a Costa Rican citrus company established in 1986 that produces 22 different products from oranges and pineapples. The company wholly or jointly owns more than 45,000 acres of orange groves in Costa Rica and Nicaragua. TicoFrut currently uses petroleum-derived bunker fuel in its boilers to generate steam for the fruit processing equipment. The proposed Project will allow the plant to produce steam with waste biomass and also to produce electricity for the plant's consumption by capturing the waste heat from the boiler. To date this technology has almost exclusively been limited to the sugar industry, which has ample, on-site waste from sugar cane bagasse. Thus the project will serve as an innovative example that is expected to help expand this renewable and highly energy efficient technology to other companies in the region.

The Project will reduce energy costs and enable TicoFrut to become more competitive. It will also help mitigate climate change through a reduction in greenhouse gas emissions. Furthermore, the Project will provide stable and reliable energy to the plant through the installation of this innovative, energy-efficient, renewable energy system in the agribusiness sector in Costa Rica.

The Project was identified through an investment-grade engineering feasibility study conducted under the IDB's technical cooperation "Increasing Private Sector Investment in Clean Energy" (RG-X1125), which was established with donor resources from the Nordic Development Fund (NDF). The combination of IDB's financing and a partial credit guarantee from the NDF under RG-X1175 will allow the project to be self-financing, with the savings paying for the debt service, and limit the necessary collateral pledged to the Project equipment. The IDB is also able to mobilize the additional co-financing required for the Project directly from the Canadian Climate Fund (C2F) to ensure the financial viability of the Project.

The Project supports the IDB's Country Strategy with Costa Rica (GN-2627) which has a focus on sustainable energy by increasing renewable energy and reducing fossil fuel use; the Project supports Costa Rica's goal of becoming carbon neutral by 2021 by directly reducing fossil fuel imports which are the greatest source of Costa Rica's emissions. The Loan is directly aligned with the sector priority of the Ninth General Capital Increase (GCI-9) in the "Resources of the IDB," to protect the environment, respond to climate change and promote renewable energy.

The Project is also consistent with the IDB's "Strategy for Climate Change Action" as it will assist Costa Rica to develop and finance environmentally a sustainable Project. The Project will contribute towards with SCF vision target of supporting climate friendly investments of US\$12 billion by 2015.