PROJECT SUMMARY

CIRCULAR ECONOMY FROM AGROFORESTRY RESIDUES FOR DECARBONIZATION

(CR-G1010)

Management of biomass waste generated in agricultural and agroindustrial processes is strategic for Costa Rica, both as part of its agricultural export economic growth model and as part of the fulfilment of its greenhouse gas reduction commitments under the Paris Agreement and its national decarbonization plan.

In Costa Rica, wood waste from logging amounts to about 100,000 tons each year. Furthermore, sawmills generate at least an additional 130,000 tons annually. This waste often ends up in landfills which takes up space and its decay generates methane—a very harmful greenhouse gas that contributes to global warming and climate change. Through a circular economy model, this waste could be transformed into pellets, which have different industrial and household uses.

Although the production and sale of pellets is common in Europe and North America and evidence exists about their benefits in terms of emissions in comparison with products such as coal, in Central America and the Caribbean, Pelletics is the only pellet plant[1] that has developed know-how in the treatment of tropical wood waste. It has grown significantly, particularly in recent years, by developing products for household consumption.

The project objective is to strengthen and expand a circular economy model based on processing agroforestry residues, converting them into biodegradable end products, which in turn helps to avoid greenhouse gas emissions, promotes local employment, and strengthens linkages with local value chains and foreign markets.

Pelletics is a Costa Rican company whose purpose is to contribute to decarbonization of the economy through effective management of agroforestry residues, transforming it into products that can replace fossil fuels and other environmentally-friendly products. The indirect beneficiaries of the project are 26 companies in the construction sector and 65 local producers of wood waste who will improve their waste management. The benefits of this project will be felt by the country's general population (estimated to be 5 million) since, through the circular model of reusing waste for biomass and marketing other byproducts, 44,300 tons of wood waste will be processed, thereby avoiding 8,200 tons of CO_2.

The project will contribute to the strategic objective of the IDB Group's country strategy with Costa Rica of productivity gains and narrowing of production gaps, and it is consistent with IDB Lab's efforts to develop impact investments in the region, promoting business models that support decarbonization of the economy and the fight against greenhouse gas emissions and climate change.

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[1] Pelletization is the process of molding small particles of determined materials, for example wood waste from crops, into larger particles (pellets).