

Carbon Sequestration in Small Farms in los Santos Region, Costa Rica (Los Santos Project)

Project description and proposed activities



Farmers in the Los Santos Region of Costa Rica will be encouraged, to introduce forestry production activities in their farms through the Payment for Environmental Services (PES) program implemented by FONAFIFO. The project will generate a net anthropogenic absorption of near 50,000 tons of CO₂/year during at least 20 years, which would not occur in the absence of the proposed project.

In a period of three years 105,000 trees will be planted in agroforestry systems, 3000 ha will be dedicated to reforestation through natural regeneration, and 300 ha to

commercial reforestation, using both native species and non-native species.

Costa Rica, is presently implementing a Program of Payments for Environmental Services (PESP), using mainly its own resources. Through the implementation of the PES program FONAFIFO has developed technical and administrative capacity to promote reforestation projects in the country. Through this project FONAFIFO proposes to expand the scope of the PES program in a specific area of the country: Los Santos Region. FONAFIFO will pay to the farmers the environmental services of biodiversity protection, protection of water resources and scenic beauty generated by the reforestation activities, and these payments will be complemented with the additional incomes coming from the carbon sales. The additional incomes from carbon sales will allow FONAFIFO to create a new PES modality, that is: reforestation of degraded lands through human induced promotion of natural seed sources (natural regeneration), and to improve the cash flow pattern typical of reforestation activities.

Developer

FONDO NACIONAL DE FINANCIAMIENTO FORESTAL (FONAFIFO)

Organizational category: Government agency

Type of Project

Greenhouse gases targeted CO ₂	Sequestration	Rehabilitation of degraded lands to forest Rehabilitation of lands to agroforestry Plantation for wood products/Small scale landholders
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Location of the project

Map 1: Location of the Project Area in Costa Rica



The geographic location of the project is between the coordinates x: 4916000 to 553600 and y: 174600 to 206800 of the Lambert Costa Rica North Grid. Project boundary is the watershed of the Parrita River at the point x: 501343 and y: 175670 of the above mentioned grid. The watershed has a total area of 115,347 ha., and it is located within two provinces: San Jose and Cartago.

Environmental benefits and risks

The major environmental benefit from the project is the recovery of the forest cover in 3750 ha which are presently dedicated to pasturelands or croplands (due to reforestation and natural regeneration) (see Figures 1 and 2). These new forests will provide raw material for the forest industry, decreasing the illegal logging and damage of the remaining natural forest.



Figure 1. Croplands and pasturelands near Pirriis Project, near San Pablo, Leon Cortes.



Figure 2. Pasturelands near Cangrejal, Acosta

Generation of additional environmental services derived from forest ecosystems, such as, biodiversity (see Figures 3 and 4), water resources, and scenic beauty protection, and mitigation of natural disasters. Local benefits for the community are the increase of family income by improving the rural local economy, training of landowners and generation of employment, and the protection of their water resources.



Figure 3. *Aratinga finschi* (Crimson-fronted Parakeet) taken by Mark Piazza. (Source: www.worldbirder.com¹)



Figure 4. *Bradypus variegates* taken by © Fogden / Minden (Source: www.webshots.com².)

¹ This parrot species has been classified as threatened according to the Law No. 7317 of Wildlife conservation and its regulation (<http://www.worldbirder.com/photonev/xpages/photo.asp?PhotoID=902>)

² <http://www.webshots.com/g/25/515-sh/53082.html>

Baseline scenario.

The base line is near 37,500 metric tons of Carbon

Estimate of carbon sequestered or conserved by de project activities (in metric tonnes of CO₂ equivalent – tCO₂e)

Up to and including 2012	Up to a period of 7 years	Up to a period of 10 years	Up to a period of 14 years
334,170 tm CO ₂ e	288,880 tm CO ₂ e	425,300 tm CO ₂ e	601,150 tm CO ₂ e

Socio-economic benefits and risks

There are 258 rural towns in the project area. Their main economic activities are based on agriculture and cattle-farming. These activities, such as coffee production are going through difficult times due to the international prices of this product.

The project incorporates activities that energize the local economy, generating employment through reforestation.

The total project budget is US\$ 3.19 Millions. US\$ 0.235 Millions are needed for project preparation, certification, etc., and US\$ 0.203 Millions correspond to project administration costs, the rest (86.2%) will be invested directly in the project area in the form of payments to the farmers for the environmental services produced by them, including carbon sequestration.

Indicative Carbon Credit Value: US\$ 4.3 /ton CO₂e

Description	Amount (US\$ millions)	Source
Equity	0.237	Unidentified
	0.203	FONAFIFO
	2.75	Carbon Sales
Debt – Long-term	0	
Debt – Short term	0	