

Carbon Sequestration in Small and Medium Farms in the Brunca Region, Costa Rica (CoopeAgri Project)

Project description and proposed activities



Farmers in the Brunca 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 44,773 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 180,000 trees will be planted in agroforestry systems, 3,600 ha will be dedicated to reforestation through natural regeneration and 300 ha to commercial reforestation, using both native species and

non-native species.

Figure 1. General view of Valley sub-region.

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: Perez Zeledon County. 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

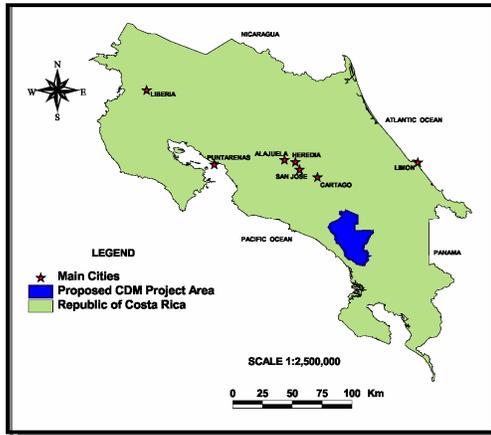
FONDO NACIONAL DE FINANCIAMIENTO FORESTAL (FONAFIFO)

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



The geographic location of the CoopeAgri A/R CDM project is Latitude North: 9.22° to 9.40° Longitude West: 83.28° to 83.81° (Datum WGS84) (See Figure 2). It covers 4,140 ha, spread over 10 districts, 194 towns, and one municipality. It is located within Perez Zeledon County located in the western section of San Isidro's General Valley in the South-East part of Costa Rica.. The population density of the county is 63 persons/km2.

Figure 2. Location of CoopeAgri A/R CDM Project.

Environmental benefits and risks

The major environmental benefit from the project is the recovery of the forest cover in 3,900 ha which are presently dedicated to pasturelands or croplands (due to reforestation and natural regeneration) (see Figures 3 and 4). These new forests will provide raw material for the forest industry, decreasing the illegal logging and damage of the remaining natural forest.



Figure 3. Croplands and pasturelands in the North Hills Sub-region.



Figure 4. Pasturelands in the South Hills Sub-region.

Generation of additional environmental services derived from forest ecosystems, such as, biodiversity (see Figures 5 and 6), 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.



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Figure 5. *Ramphocelus costaricensis*.
Picture taken at Las Cruces,
Costa Rica by Lou Hegedus

Figure 6. *Geotrygon montana*.
Picture taken at Canande,
Ecuador by Lou Hegedus

Baseline scenario.

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

Estimate of carbon sequestered or conserved (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
352,500 tm CO ₂ e	306,000 tm CO ₂ e	448,900 tm CO ₂ e	641,800 tm CO ₂ e

Socio-economic benefits and risks

There are 194 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\$ 4.14 million. US\$ 0.75 Millions are needed for project preparation, certification, etc., and US\$ 0.281 Millions correspond to project administration costs, the rest (83.2%) 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\$ 4.15 /ton CO₂e

Description	Amount (US\$ millions)	Source
Equity	0.120	CoopeAgri
	0.739	FONAFIFO
	3.281	Carbon Sales

¹ <http://www.mangoverde.com/birdsound/picpages/pic201-112-1.html>



More than reducing emissions
It's about generating development

	2.207	Bio-Carbon Fund
Debt – Long-term	0	
Debt – Short term	0	

The first 12 years of the CoopeAgri Project were sold to the ***Bio Carbon Fund of the World Bank***. The proposed New Baseline and Monitoring Methodologies for A/R CDM Projects are based on the AR-AM 0003 approved methodology. These new methodologies are under revision by the A/R Working Group.

These methodologies will be used in other A/R CDM projects in Costa Rica, for which the required documents (Project Design Document and Monitoring plan) are being prepared.