



GEF-Satoyama Subgrantee Highlights Report

Organization Name:	FIDES
Country:	Ecuador
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<Highlight 1>: Cordillera del Bálsamo reforestation (Protection of the Mono Capuchino)

The reforestation in the *Cordillera del Balsamo* (dry forest) is linked to the protection of the white-headed capuchin protects mono capuchino blanco (*Cebus albifrons aequatorialis*) which is listed as Critically Endangered A2cd (CR) under IUCN guidelines. According to Tiriria (2011) in the Red Book of Mammals of Ecuador, the national level is considered to be IN CRITICAL DANGER “*inasmuch as has been estimated, there has been an 80% reduction in its livable area in the last 3 generations (48 years) and it will continue to be threatened in the coming generations. In the international field, it is also considered in CITES in Appendix II; while in the UICN (2008) the threat to this subspecies is considered to be IN CRITICAL DANGER by the same criteria of the national evaluation.*” (p. 71).

A diagnostic of the reforestation areas was done with the researcher Jon Johnston and the collaboration of Humboldt State University in California, USA. Upon evaluating preliminary results of the investigation, which began in June, 2016, one of the objectives is to investigate the ecology of these mammals in a section of the dry tropical forest in the Balsam Range (Sucre, Manabí in Ecuador). With the support of the Conservation of Zoos of the Sequoia Park Grant, there have been 20 camera traps with remote sensors located in various parts of the private reservations (3 in Punta Gorda, 2 in Capuchino, 3 in the borders of the La Mesita reserve, and there are 12 other camera traps which are not included in this project in other reserves) and the white-headed capuchin has been spotted in 3 places.



Source: NODO map, Cordillera del Bálsamo.

In the past, this species of monkey was sighted but we lacked much photographic evidence. However, with the arrangement of the camera traps in Punta Gorda (3), Capuccino (2), and the limits of La Mesita (3) the current situation of this species can be observed.

These areas make up the ecological corridor of the Capuchin monkey. They frequently come down from the trees in search of food and water. They live and travel in groups of 8 or more. As we can see, the three reserves converge and are connected, and there is not yet an agreement to place camera traps in the La Flaca reserve.



Based on this data, the reforestation of the papaya (*Carica papaya*) and ovo (*Spondias purpurea*) plants (which are fruit trees that supply food for the Capuchin monkey) has been initiated and will subsequently be continued with the guachapeli. The ovo and the papaya were planted in a linear 3 km area within the perimeter of the monkey's movement area. This year the reforestation was initiated in the Capuchino and Natural Punta Gorda reserves.

The carob tree is being reforested in the Mesita-Punta Colorada Reserve.

Currently, the ovo and papaya plants have been geo-indexed. In the tracking and monitoring of these plantings, a 100% germination rate, result of the good winter weather, has been observed.

<Highlight 2>: Workshops on the resiliency Indicators

There have been 2 workshops on resiliency indicators:

- 1) In the Province of Manabí, where the indicators were observed in three terrains
 - The Rio Portoviejo Estuary (Mangrove Ecosystem)
 - Cordillera del Bálsamo (Dry Forest Ecosystem)
 - The Rio Chone Estuary (Mangrove Ecosystem)
- 2) In the Esmeraldas Provincial, where 1 terrain was analyzed
 - Playa de Oro Commune (Rainforest)

The workshop objectives were:

- To generate a baseline, at the start of the project, for the community training on adaptation to social, economic and environmental changes generated in their environment and territories.
- To improve the process of decision-making and adaptive management for the conservation and sustainable use of biodiversity of both landscape and seascape.

The agenda for the workshops was as follows:

POINT IN TIME	CONTENT
WORKSHOP INTRODUCTION AND PRELIMINARIES	<ul style="list-style-type: none"> Context of workshop: Introducing participants and their expectations, generating favourable work conditions. Opening: Present objectives and methodology
PROACTIVE EXHIBITIONS	<ul style="list-style-type: none"> What is a socio-ecological production landscape (SELPS) Meaning of resilience Meaning of biodiversity Definition of an indicator Mapping of workshop
COMMUNITY GROUP WORK	<ul style="list-style-type: none"> Mapping our territories Resilience in the territory: Community timeline, resources and uses of biodiversity Plenary presentation of group work
	<ul style="list-style-type: none"> Measuring of indicators Overview of indicators Elaboration of graphics
	<ul style="list-style-type: none"> Elaboration of Action Plan
PLENARY SESSION	<ul style="list-style-type: none"> Next steps Workshop evaluation

The methodology of the indicators of resilience was developed by Biodiversity International and UNU-IAS in 2012 and intends to recognise the interpretations and perceptions that communities have with respect to their landscapes. It intends to recover the history of the community from the modifications that have happened in their environment, to measure those changes and primarily contribute in the elaboration of action plans that guide the communities to improve their resilience capacity. They contribute to the recovery of the landscapes and seascapes and their sustainability.

The areas and indicators that were analyzed were as follows:

AREA	INDICATOR
Landscape diversity and protection of ecosystems	Diversity of landscape/seascape
	Protection of the ecosystem
	Ecological interactions between different components of the landscape/seascape
	Recovery and regeneration of landscape/seascape
Biodiversity (including agricultural biodiversity)	Diversity of local power supply
	Sustainable management of communal resources
Knowledge and innovation	Traditional knowledge related to biodiversity
	Women's knowledge
Governance and social	Community-based government of landscape/seascape

equity	Share capital in the form of cooperation throughout the landscape/seascape
	Social equity (including gender equality)
Livelihoods and wellbeing	Income diversity
	Livelihoods based on biodiversity
	Socio-ecological mobility

The results of the workshops can be found in the attached memoirs.

<Highlight 3>: Mangrove Reforestation

The process of mangrove reforestation is being strengthened by the opening and cleaning of the internal canals within the mangrove with the purpose of increasing the water of the estuary to the zones where the reforestation will be done because many of the natural canals were blocked for the installation of shrimping pools. Also, areas exist where the lack of water has resulted in dried out mangrove, and now these canals are being opened to reforest these areas.

These canals ought to be cleaned regularly because, due the sediment process in the estuaries, they get blocked.

In the Rio Portoviejo Estuary various canals have been cleaned and 3 hectares are ready for reforestation, which rely on an on-site garden area where the seedlings will be planted for reforestation.

In the Rio Chone estuary, 2 hectares of mangrove which were affected by the April 16th earthquake have been reforested, and now 3 hectares are ready for reforestation. The canals in these areas have already been opened to facilitate the increase of water into the estuary.

Photos



Photo 1: Sightings of the Capuchin Monkey by the camera traps in the La Gorda and Punta Verde private reserves (November 16/2016). ©Ramón Cedeño



Photo 2: Sightings of the Capuchin Monkey by the camera traps in the La Gorda and Punta Verde private reserves (December 10/2016). ©Ramón Cedeño



Photo 3: Reforestation of the ovo plants in the Punta Gorda and Capuchino private reserves. ©FIDES



Foto 4: Reforestation of the papaya plants the Punta Gorda and Capuchino private reserves. ©FIDES



Foto 5: Reforestation of the papaya plants in the Punta Gorda and Capuchino private reserves. ©FIDES



Foto 6. Mangrove restoration- cleaning the canals to facilitate flow and tides of water in the areas where reforestation will occur, Rio Portoviejo Estuary. ©FIDES



Foto 7: Group work in the Resiliency Indicators Workshop. Participants in the Rio Chone Estuary. ©FIDES



Foto 8: Group work in the Resiliency Indicators Workshop. Participants in the Rio Portoviejo Estuary. ©FIDES



Foto 9: Group work in the Resiliency Indicators Workshop. Participants in the Bálsamo Range. ©FIDES



Foto 10: Group work in the Resiliency Indicators Workshop. Participants in the Playa de Oro Commune. ©FIDES