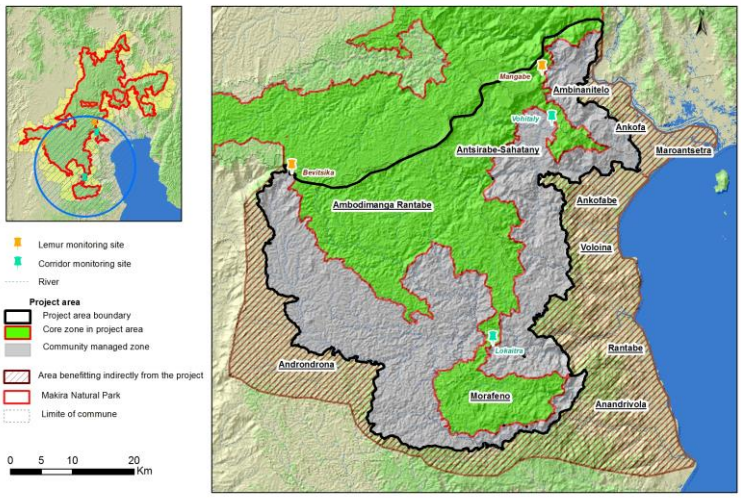
GEF-Satoyama Project

CONSERVATION INTERNATIONAL Japan

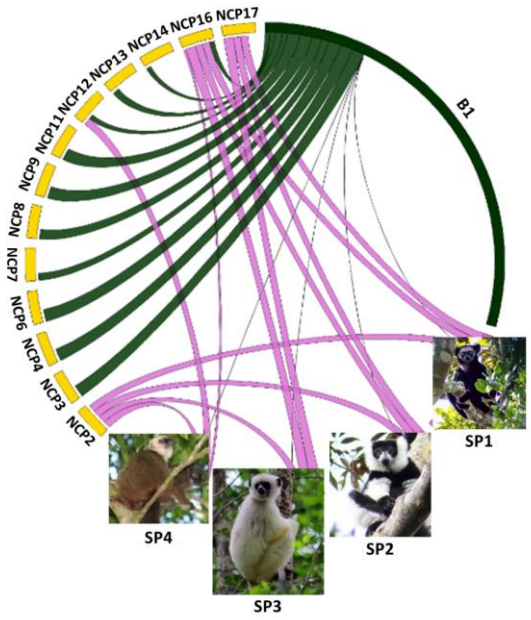
## Project Final Report

| | |
|---|---|
| **Project Name** | Integrated adaptive management to protect ecological integrity in the Socio-Ecological Production Landscape (SEPL) of the south-east watershed of Makira Natural Park |
| **Location** | Analanjirofo, Madagascar   |
| **Implementing Organization** | Wildlife Conservation Society (WCS) |
| **Partners** | Ministry of Environment, Ecology, Oceans and Forests, Madagascar, Lafaza Trading Company |
| **Size of Project Site** | 190,622 ha |
| **Number of Beneficiaries** | 25,000 persons |
| **Key Species** | Indri (*Indri indri*)<br>White-belted Ruffed Lemur (*Varecia variegata* ssp. Subcincta)<br>Silky Sifaka (*Propithecus candidus*) |
| **GEF Funding Amount** | US$87,000 |
| **Co-financing** | US$91,286 |
| **Period of Performance** | July 2016 – December 2018 |

**Summary (Including relevance to values, Indigenous Language and knowledge (ILK), and governance)**

The project maintained the ecological integrity of the Makira Natural Park and optimized the use of natural resources to underpin livelihoods in the fragile socio-ecological production landscape (SEPL) of the southeast watershed of the Park that suffers from high levels of anthropogenic threats. Three components were implemented to achieve this goal: (i) the reinforcement of the ecological integrity of the south-east watershed of Makira and reduction of the pressures and threats to ecological functions and biodiversity of the SEPL through participatory patrols and ecological monitoring and restoration of the two fragile forest corridors of Vohitaly and Lokaitra; (ii) the diversification and increased resilience of local communities' livelihoods through improved agro-ecological production techniques for FairTrade cloves and the promotion of an improved rice growing intensification system; and (iii) the promotion of good governance and environmental-friendly practices amongst communities to promote the involvement of all stakeholders, and particularly women and young people in natural resources governance and decision-making. The project reinforced community ownership and positive attitudes towards conservation actions by ensuring a strong and effective involvement of communities in conservation actions coupled with interventions to support improved livelihoods and economic development based on the traditional and sustainable use of natural resources.

The GEF-Satoyama Project aimed to address three barriers to SEPLS globally, namely, insufficient recognition of SEPLS values, disappearing traditional knowledge, and weak governance. A strong link between values, knowledge and governance can potentially enhance biodiversity and production in SEPLS. The interplay between values, ILKP and governance contributing to the sustainability and resilience of SEPLS was considered as well as the linkages between the drivers and corresponding policies are shown in the following figures and tables below.




Ecosystem domain (deep green)
**B1**: Natural/protected forest

Important species (purple)
**SP1:** Indri (*Indri indri*) CR
**SP2**: Black and White Vari (*Varecia variegata subcincta*) CR
**SP3**: Silky Sifaka (*Propithecus candidus*) CR
**SP4**: White fronted brown lemur (*Eulemur albifrons*) EN

Ecosystem services (NCP) (yellow)
**NCP2**: Pollination and seed dispersal
**NCP3**: Air quality regulation
**NCP4**: Climate regulation
**NCP6**: Freshwater quantity, flow and timing regulation
**NCP7**: Freshwater and coastal water quality regulation
**NCP8**: Soil formation, protection and decontamination
**NCP9**: Hazard and extreme event regulation
**NCP11**: Energy
**NCP12**: Food and feed
**NCP13**: Materials and assistance
**NCP14**: Medicinal, biochemical and genetic resources
**NCP16**: Physical and psychological experiences
**NCP17**: Supporting identities

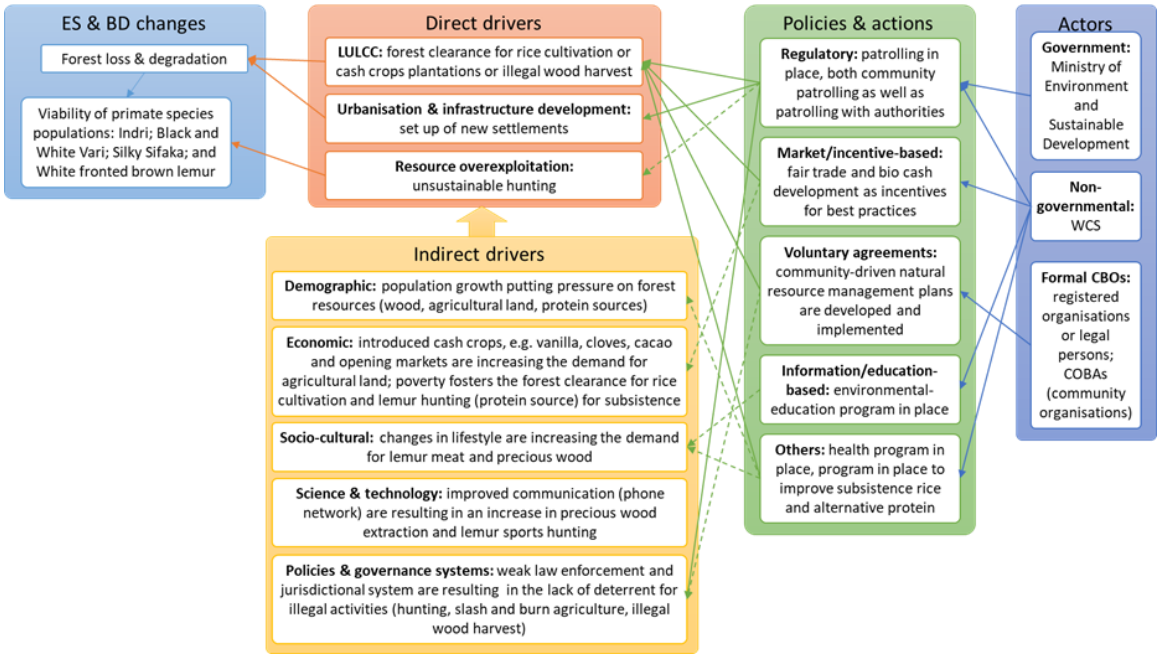
## Connection between ecosystem domains, species and ecosystem services (NCP)

## ILKP for the use and management of different ecosystem domains and species

| Ecosystem / Species | ILK: Domain | ILK: Description | Trend | ILK holders: NTFP gatherers | ILK holders: Elders | ILK holders: Local community |
|---|---|---|---|---|---|---|
| 1.Natural/ protected forest | 1.Knowledge | Knowledge of forest animals and plants | ↗ | | ○ | |
| | 2.Mgt. system | Environmental knowledge on sustainable NTFP extraction | ↘ | ○ | | |
| Black and White Vari | 1.Knowledge | Species identification and taxonomy, life histories, distributions and behavior | ↘ | | | ○ |
| | 4.World view | Traditional and natural religious beliefs | ↗ | | ○ | |
| Indri | 1.Knowledge | Species identification and taxonomy, life histories, distributions and behavior | ↘ | | | ○ |
| | 4.World view | Traditional and natural religious beliefs | ↗ | | ○ | |
| Silky Sifaka | 1.Knowledge | Species identification and taxonomy, life histories, distributions and behavior | → | | | ○ |
| | 4.World view | Traditional and natural religious beliefs | ↗ | | | ○ |
| White fronted brown lemur | 4.World view | Traditional and natural religious beliefs | → | | ○ | |

## Ecosystem governance structure in the landscape

| Ecosystem type | Protected/natural forest | Stakeholder type |
|---|---|---|
| **Ownership** | Ministry of Environment and Sustainable Development | Government or public |
| **Management right holder** | Wildlife Conservation Society | Non-governmental |
| **Other stakeholders** | Network of community associations (COBAs) | Formal community org. |




**Configuration of the linkages between ecosystem and biodiversity changes, their direct and indirect drivers and corresponding policies and actions**

This project has contributed to the following Sustainable Development Goals (SDGs):


This project has contributed to the following Aichi Biodiversity Targets (ABTs):

**Project Achievements**

| Name | Description |
|---|---|
| Reforestation | More than 500ha of forest restored with a seedling survival rate of 97%. |
| Community Patrols | More than 320 patrols conducted in collaboration with local communities saw the curbing of illegal hunting and deforestation; and the removal and destruction of traps and camps. |
| Capacity building | Training provided in improved clove production and intensive rice system to improve the productivity of the farms and avoid further expansion of farms. |

**Lessons Learned**

| Description | Recommendation |
|---|---|
| Natural disasters due to cyclones | Two storage bonds were constructed to allow for easier recuperation after a cyclone due to the storage of planting materials and food etc. |
| Security of Vanilla plants | Due to the need to secure vanilla plants both night and day, little attention is given to other crops such as rice. Therefore, the more efficient farming methods employed, reduced the amount of time needed to tend to the crops. |
| Gender considerations | Was able to have the first female patrol officer involved in patrol missions demonstrating that women can take part in these activities as well. |

**Outputs**

| Type | Details |
|---|---|
| Video | Makira, Home of Lemurs https://www.youtube.com/watch?v=5RF78mLYgqA |
| Video | The corridor of cocoa and cloves in Makira https://www.youtube.com/watch?v=P7EEKsgGpeM |

**For more information please contact**



| | |
|---|---|
| **Name** | Lantoniaina Andriamampianina |
| **Address** | Villa Ifanomezantsoa – Face II A 78 D Soavimbahoaka – 101 Antananarivo Madagascar |
| **Telephone** | +261-20-225-9789 |
| **E-mail address** | lanto@wcs.org |
| **Website** | http://www.wcs.org/ |