CEPF Final Completion and Impact Report

Organization's Legal Name:	Planet Madagascar
Project Title:	Managing Fires and Monitoring Forests in Ankarafantsika National Park in Madagascar
Grant Number:	CEPF-109381
Hotspot:	Madagascar and Indian Ocean Islands
Strategic Direction:	1 Empower local communities to protect and manage biodiversity in priority key biodiversity areas.
Grant Amount:	$187,963.00
Project Dates:	April 01, 2020 - June 30, 2022
Date of Report:	August 29, 2022

IMPLEMENTATION PARTNERS

We work closely with several stakeholders to plan, implement, and evaluate our ongoing conservation projects. We hold approximately four meetings each year with the stakeholders to discuss Planet Madagascar's projects.
Community members of Maevatanimbary, Andranohobaka, and Ambarindahy (local): we work very closely with community members to run our projects as they are the beneficiaries.
Tontolo Maitso : We helped build capacity in this women cooperative Tontolo Maitso on various
projects including citrus selling. They are the beneficiary of the citrus seedlings in this project.
Madagascar National Parks (MNP): Planet Madagascar Association, have an accord with MNP to conduct conservation and education activities within the park. MNP also works with us directly by providing us with staff support. For example, once a month park staff visits our project and offers assistance and advice.

Durrell Wildlife Conservation Trust: we have worked closely with Durrell—they have provided in-kind support to our projects through transportation to and from our communities, and conservation methods training for our patrol team on the use of Smartphone with OSM tracker app.

CONSERVATION IMPACTS

Planned Long-Term Impacts: 3+ years (as stated in the approved proposal)

Impact Description	Impact Summary
The integrity of the protected status of Ankarafantsika National Park is maintained by retaining or increasing habitat for lemurs, which will help increase the lemur population for the eight different lemur species—five of which are endangered or critically endangered—that live within the fire management zone.	we helped maintain lemur habitat and saw a general increase in lemur sightings over the course of the project.
Increased awareness of the effects of burning grasses for livestock grazing on the forest in three local communities and 3 adjacent communities.	Community members understand the impact of fire in their life and they have never burned grasses so far. They start to keep their cattle in their village and start to keep enough herb for their cattle.
A local livestock grazing strategy developed in consultation with key stakeholders in 6 communities.	We maintained the grazing strategy with key stakeholders
Supplemental income for 15 persons involved in a new beekeeping enterprise, and supplemental income for 35 women's cooperative members involved in a citrus selling operation.	We were able to supplement the income of 15 persons through a new beekeeping enterprise and 35 women via citrus selling
Planet Madagascar's capacity is further increased through the engagement of new staff members in Madagascar and Canada, thereby allowing us to more effectively raise funds, deliver projects to more communities, and forge and strengthen relationships with in-country and international supporters.	Improved through a site visit from the executive director.
Increased efficiency in monitoring lemurs and habitat through training on phone-based monitoring technologies.	achieved through continued patrols, training on phone-based monitoring technologies, and through advanced training on survey and behavioural recording methods from an international consultant.
Awareness about the impact of fires on lemurs, forests, and people is increased through educational programs (including educational film), reaching approximately 1000 people living in 10 communities surrounding Ankarafantsika National Park.	As knowledge, the local community know the importance of the biodiversity conservation and the inconvenient of fire on human's life, environment, then it will stay in their generation to generation and hopefully increase the biodiversity conservation work.

Planned Short-Term Impacts: 1 to 3 years (as stated in the approved proposal)

Impact Description	Impact Summary
In the 8000 ha fire management zone, representing approximately 6% of Ankarafantsika National Park, both the impact and the number of fire, grazing, and forest extraction incidents have been reduced between the start of and end of the project.	We have reduced the impact of and number of fires, grazing and forest extraction within the management zone.
A network of 15 km of firebreaks has been maintained over the course of the project, protecting 357 ha of forest fragments (representing approximately 0.25% of	We have completed more than 15 km of fire breaks that were maintained for the project.

Impact Description	Impact Summary
Ankarafantsika National Park) and an additional 4000 ha of continuous forest (representing approximately 3% of Ankarafantsika National Park).	
Poverty reduced in three communities by providing 18 part-time (4 days per week) fire patrol jobs.	we reduced poverty in 18 persons through employment as patrollers.

Unexpected impacts (positive or negative)?
There was unexpected positive impacts as the community from Ambarindahy created a new firebreak voluntarily in the fire management zone to protect the fragmented landscape.
Achieving the activities during the peak of Covid is challenging. We tried to mitigate the impact of COVID on the projects by continuing as many elements of the project as possible. For example, we were still able to conduct many of the patrols which were done manually without the aid of GPS units until september 2020. Because we could not do any face-to-face meetings we had to switch to communicating electronically or over the phone. Because of government restrictions and to prevent the continued spread of the virus we did the following procedures: all staff worked remotely or physically distanced, project staff and office staff were provided masks and soap and asked to wash hands regularly, all travel was limited to what was allowed, and no meetings were held with community members or stakeholders. All travel was restricted to what was allowed and communication between the office and project staff was done via phone calls. Some materials were transported by post. The team in fields were working hard to accomplish all activities. We managed the time later to catch up.
COVID-19 and the associated restrictions meant that a lot of project needed to completed within the last few months. This created a cash flow issue and strained the capacity of the organization
We finalized two projects (this and an IUCN project) at the same time. Because both organizations withhold 10% of the grant funds and our organization is small we had severe cash flow limitations. To remedy this we needed to request an emergency tranche, the executive director had to use personal funds, and we had to cover a number of costs using funds from a new project partner.

PROJECT RESULTS/DELIVERABLES

Overall results of the project:
In total, 1 399 patrol have been conducted from April 1st 2020 and June 30th 2022 by fire management team and the CLP from Beronono and Andranomiditra in their respective zone. In total, 870 lemur sightings (with group repetition) of 7 species: Microcebus spp., Avahi occidentalis, Lepilemur edwardsi, Cheirogaleus medius, Eulemur mongoz, E. fulvus and Propithecus coquereli have been recorded. E. fulvus is the most common (422 sightings) then P. coquereli (318 sightings). In addition, we recorded 120 times of human disturbance during the patrol and the cut trees were the most common found during the patrol. Even there was a fire in western part of the fire management zone, our firebreak (more than 16 km x 10 m) stopped it and the fire could not touch the fragment. Related to that, the community from Ambarindahy decided voluntarily to create a new firebreak of 1.400km to have a good protection of the fragmented landscape. This is really important as they have an initiative to do the task. Regarding the community development, the last follow up on beekeeping project noticed that 41,37% of 119 hives has bees in total. This is much improved even there was a fire which badly impacted this topic last year (32 %, previous production rate). Regarding the citrus, 900citrus seedlings have been donated to the women

cooperative members in the three villages. In total, 45 persons are the beneficiaries of these seedlings. As for exchanges, we led the six representatives of the tree villages to visit two beekeeping sites in St Marie which are the sites model of PAGE GIZ Boeny. Furthermore, we made agroforestry sites visit in Marosakoa, Betania (Boeny area), Ambavaniasy vohimana (Alaotra mangoro area). These sites are the site model of PLAE and NGO Homme et l'Environnement respectively. The visit is for strengthening their knowledge and to learn as much as possible about the farming and to share that experience with other members of their community. All of that aimed at sustainable agriculture and improve their livelihood. As education and awareness, we conducted 17 radio show and 496 of radio broadcasts about fire management and lemur conservation. We hosted two international consultants (nutrition and lemur monitoring).

Results for each deliverable:

Component		Deliverable		
#	**Description**	**#**	**Description**	**Results for Deliverable**
1.0	Fire Management and Lemur Monitoring Program	1.1	24 consolidated report of patrols	
1.0	Fire Management and Lemur Monitoring Program	1.2	Monthly Report	
1.0	Fire Management and Lemur Monitoring Program	1.3	Map showing 15 km of firebreak maintained within the management zone.	
1.0	Fire Management and Lemur Monitoring Program	1.4	1 training report	
1.0	Fire Management and Lemur Monitoring Program	1.5	1 map of human disturbance, lemur occurrence, and forest amount produced	
1.0	Fire Management and Lemur Monitoring Program	1.6	2 comparison maps of the forest area at the beginning and at the end of the project	
2.0	Education and Awareness	2.1	500 persons in 10 communities sensitized on fire management	
2.0	Education and Awareness	2.2	Document of livestock grazing strategy	
3.0	Capacity Building in Planet Madagascar	3.1	Employment contract for new staff	
4.0	Exploration and Creation of Development Activities	4.1	2 site visits for staff and community representatives of other areas showcasing development activities to alleviate forest destruction	

Component		Deliverable		
#	Description	#	Description	Results for Deliverable
2.0	Education and Awareness	2.3	Sign-in sheet showing 50 persons sensitized during each "Responsible Fire Day" awareness event (2 events)	
2.0	Education and Awareness	2.4	1 copy of 2 radio emissions produced, including estimated 260 total number of airings.	
4.0	Exploration and Creation of Development Activities	4.3	10 hives per person established (5 persons per community in 3 communities for a total of 15 persons and 150 hives)	
4.0	Exploration and Creation of Development Activities	4.4	20 citrus seedlings planted per person (5 persons per community in 3 communities for a total 15 persons and 300 seedlings planted)	
4.0	Exploration and Creation of Development Activities	4.2	2 business plan / sector study / feasibility study (honey, citrus)	

Tools, products or methodologies that resulted from the project or contributed to the results:
Using a OSM Tracker for Android app is a very helpful for patrolling as the patrol team can record the event and take a picture in the real time. This app saves the track as well during the patrol. It is a free application and downloadable with Playstore.

PORTFOLIO INDICATORS

Portfolio Indicator Number	Portfolio Indicator Description	Expected Numerical Contribution	Expected Contribution Description	Actual Numerical Contribution	Actual Contribution Description
0	40 Key Biodiversity Areas, covering 2.8 million hectares, have new or strengthened protection and management.			1	We contributed to strengthened the protection and management of 15,150 ha within one KBA
1.2	Awareness of the values of biodiversity and the nature of threats and drivers raised among local communities in at least 25 priority sites.			15	Awareness of communities was raised in more than 15 communities. We screened a film about biodiversity conservation, the impact of fire, conducted many radio broadcasts to increase the awareness of the importance of the biodiversity and the impact of fire on biodiversity.
1.3	Effective participation of local communities in the management of at least 10 new protected areas at priority sites.			15	Engagement of local communities in management of 15 sites within one protected area. Even as the project was finishing the communities continued to patrol the area and clear additional firebreak to protect the forest from fire.
1.7	Capacities of local community organizations in charge of conservation and local development improved in at least			15	We worked with 15 communities to screen a film, and produced radio broadcasts that covered the northwest portion of Madagascar. All were aimed to improve community

Portfolio Indicator Number	Portfolio Indicator Description	Expected Numerical Contribution	Expected Contribution Description	Actual Numerical Contribution	Actual Contribution Description
	20 sites, allowing for increased sustainability and efficiency of these organizations				organizations awareness and capacity to engage in conservation suchas tree planting, conducting patrols, and clearing firebreaks.

GLOBAL INDICATORS

Protected Areas

Protected areas that have been created and/or expanded as a result of the project. Protected areas may include private or community reserves, municipal or provincial parks, or other designations where biodiversity conservation is an official management goal.

Name of Protected Area	WDPA ID*	Latitude	Longitude	Country	Original Total Size (Hectares) **	New Protected Hectares ***	Year of Legal Declaration or Expansion

*World Database of Protected Areas

**If this is a new protected area, 0 should appear in this column

*** This column excludes the original total size of the protected area.

Key Biodiversity Area Management

Key Biodiversity Areas (KBAs) under improved management—where tangible results have been achieved to support conservation—as a result of the project.

KBA Name	KBA Code	Size of KBA	Number of Hectares with Improved Management
Ankarafantsika National Park and Ampijoroa	MDG141		15,150

Production Landscapes

Production landscapes with strengthened management of biodiversity as a result of the project.

A production landscape is defined as a site outside a protected area where commercial agriculture, forestry or natural product exploitation occurs.

Name of Production Landscape	Latitude	Longitude	Hectares Strengthened	Intervention

Benefits to Individuals

- **Structured Training:**

Number of Men Trained	Number of Women Trained	Topics of Training
40	15	Beekeeping project, use of smartphone (OSM Tracker) to collect lemur and habitat disturbance data during patrols.

- **Cash Benefits:**

Number of Men – Cash Benefits	Number of Women – Cash Benefits	Description of Benefits

Benefits to Communities

View the **characteristics** column below with the following corresponding codes:	View the **benefits** column below with the following corresponding codes:
1- Small Landowners	a. Increased Access to Clean Water
2- Subsistence Economy	b. Increased Food Security
3- Indigenous/ Ethnic Peoples	c. Increased Access to Energy
4- Pastoralists / Nomadic Peoples	d. Increased Access to Public Services
5- Recent Migrants	e. Increased Resilience to Climate Change
6- Urban Communities	f. Improved Land Tenure
7- Other	g. Improved Use of Traditional Knowledge
	h. Improved Decision-Making
	i. Improved Access to Ecosystem Services

Community Name	**Community Characteristics**							**Type of Benefit**									**Country**	**Number of Males Benefitting**	**Number of Females Benefitting**
	1	**2**	**3**	**4**	**5**	**6**	**7**	**a**	**b**	**c**	**d**	**e**	**f**	**g**	**h**	**i**			
Maevatanimbary	☒	☒	☒	☒	☒	☒	☐	☐	☒	☐	☒	☒	☐	☒	☒	☒	Madagascar	35	44
Andranohobaka	☒	☒	☒	☐	☒	☐	☐	☐	☒	☐	☒	☒	☐	☒	☒	☒	Madagascar	59	66
Ambarindahy	☒	☒	☒	☐	☒	☐	☐	☐	☒	☐	☒	☒	☐	☒	☒	☒	Madagascar	173	176

Characteristics of "Other" Communities:

Policies, Laws and Regulations

View the **topics** column below with the following corresponding codes:			
A- Agriculture	E- Energy	I- Planning/Zoning	M- Tourism
B- Climate	F- Fisheries	J- Pollution	N- Transportation

C- Ecosystem Management	G- Forestry	K- Protected Areas	O- Wildlife Trade
D- Education	H- Mining and Quarrying	L- Species Protection	P- Other

No.	Name of Law	Scope	Topics													
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P

"Other" Topics Addressed by the Policy, Law or Regulation:

No.	Country/ Countries	Date Enacted/ Amended	Expected impact	Action Performed to Achieve the Enactment/ Amendment

Companies Adopting Biodiversity-friendly Practices

A company is defined as a for-profit business entity. A biodiversity-friendly practice is one that conserves or uses natural resources in a sustainable manner.

Name of Company	Description of Biodiversity-Friendly Practice	Country/Countries where Practice was Adopted

Networks and Partnerships

Networks/partnerships should have some lasting benefit beyond immediate project implementation. Informal networks/partnerships are acceptable.

Name of Network/Partnership	Year Established	Country/ Countries	Established by Project?	Purpose
Accord of Collaboration	2021	Madagascar	Yes	Collaboration as Regional office of the Ministry of the environment and sustainable development DIREDD Boeny Betsiboka

Sustainable Financing

Sustainable financing mechanisms generate funding for the long-term (generally five or more years). These include, but are not limited to, conservation trust funds, debt-for-nature swaps, payment for ecosystem services (PES) schemes, and other revenue, fee or tax schemes that generate long-term funding for conservation.

Name of Mechanism	Purpose	Date Established	Description	Country/ Countries	Project Intervention	Delivery of Funds?

Globally Threatened Species

Globally threatened species (CR, EN, VU) on the IUCN Red List of Threatened Species, benefitting from the project.

Genus	Species	Common Name (English)	Status	Intervention	Population Trend at Site
Propithecus	coquereli	Crowned Sifaka	CR	habitat preservation, species monitoring, patrolling to prevent habitat disturbance and hunting	Increasing
Microcebus	ravelobensis	Golden-brown Mouse Lemur	VU	habitat preservation, species monitoring, patrolling to prevent habitat disturbance and hunting	Unknown
Eulemur	mongoz	Mongoose Lemur	CR	habitat preservation, species monitoring, patrolling to prevent habitat disturbance and hunting	Increasing
Eulemur	fulvus	Common Brown Lemur	VU	habitat preservation, species monitoring, patrolling to prevent habitat disturbance and hunting	Increasing

Genus	Species	Common Name (English)	Status	Intervention	Population Trend at Site
Avahi	occidentalis	Western Avahi	VU	habitat preservation, species monitoring, patrolling to prevent habitat disturbance and hunting	Unknown
Cheirogaleus	medius	Lesser Dwarf Lemur	VU	habitat preservation, species monitoring, patrolling to prevent habitat disturbance and hunting	Unknown
Lepilemur	edwardsi	Milne-Edwards's Sportive Lemur	EN	habitat preservation, species monitoring, patrolling to prevent habitat disturbance and hunting	Unknown

LESSONS LEARNED

Most community members were very motivated but they do not have enough mean (eg. materials, knowledge…) to continue beyond the project scope. For example, for the beekeeping project the beneficiaries did not have enough funds to provide their own honey extractor and this was something we didn't consider when starting the project. Thus, they relied on traditional collection methods.

Firebreaks: Firebreaks are highly effective at stopping fires from moving from one area to another but does not stop a fire if it starts within the protection zone. Thus, we have employed other strategies like backburning to reduce fuel load and prevent large fires within the management zone. However, these fire themselves can be hard to manage and because fuel load increases yearly we need to find solutions that work on shorter timescales.

Patrols: We learned that while using phone based data loggers improved the exchange of information and speed with which data could be reported, we found them to be less accurate and reliable than handheld GPS devices. To remedy this we have decided to use mobile data loggers and a handheld GPS as a backup. However, with either method it is difficult to consistently get accurate measures for the distance walked. We feel this is not a technological limitation but a capacity issue and that further and more consistent training is needed to ensure accurate distance measure per patrol.

SUSTAINABILITY/REPLICATION

Challenges:
-Fire is a consistent threat within a tropical dry forest. There is no mechanism to manage it without consistent and sustained effort. Thus, these types of projects require constant external funding inputs.
-Climate change will exacerbate the fire risk for the park.
Successes:
-Related to the above the communities have seen the value and effectiveness of the firebreaks and have attempted to maintain the firebreaks as best they can on their own.
-We have been able to share our experience and co-learn with the park management (Madagascar National Parks). They are able to leverage our experiences using patrols, firebreaks, and education to conduct their own projects in other areas of the park.
-We have shown that large bodied lemur populations will improve with consistent and sustained efforts to protect their habitat.
-Education built capacity and awareness in the communities that will last for the long-term.

ENVIRONMENTAL AND SOCIAL SAFEGUARDS/STANDARDS

We have run patrols in the same management zone for the past 3 years without any safety or security incidents. However, there is a risk that our patrol members will stumble across persons conducting illegal activities. Therefore, we have informed our teams not to engage with people conducting illegal activities and instead to inform the local authorities. We are piloting the use of smart-phones to record data which we took less time and reduced the patrol members exposure to persons conducting illegal activities. Finally, with support of additional donors, we conducted mixed patrols with members of the military and MNP staff who provided to increase protection for patrol members.

ADDITIONAL COMMENTS/RECOMMENDATIONS

Longer-term funding from external donors is required to sustainably protect lemurs and their habitat. We recommend that projects consider 1-3 stages. The primary stage would be 1-2 years to set up and ensure the project is successful, the secondary stage 1-3 years would be to expand and fine tune the project, and the final project 5 year would be to ensure the long-term benefits. This would provide 10 years of stable funding and projects that would allow organizations to increase their efficiencies and seek additional sources of funding to augment or expand the project.

Operating costs versus overhead limits provides undue burden on small organizations whose overhead costs especially office staff in habitat countries reflect opportunities for capacity building. By limiting the overhead costs smaller organizations have to rely on fewer staff and thus can dedicate less time to conservation activities.

Withholding the last 10% for funds also puts undue burden on small organizations, especially those that rely mostly on external grants rather than private donations.

ADDITIONAL FUNDING

Total Amount of Additional Funding Actually Secured (USD)	
Breakdown of Additional Funding	

INFORMATION SHARING AND CEPF POLICY

CEPF is committed to transparent operations and to helping civil society groups share experiences, lessons learned and results. For more information about this project, you may contact the organization and/or individual listed below.

Planet Madagascar; info@planetmadagascar.org