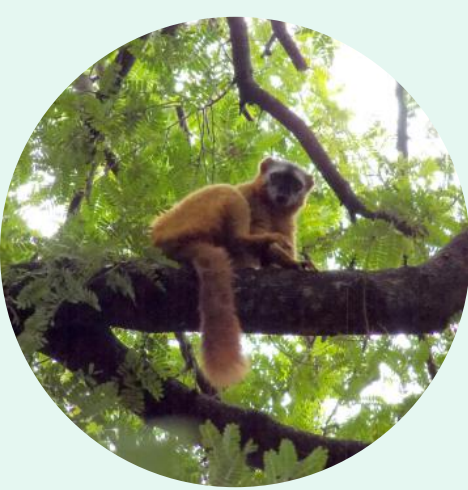


IMPACT MADAGASCAR

IMPlimenting ACTions for environmental change in Madagascar



Annual Report 2020



Introduction

Since its foundation in 2014, IMPACT Madagascar has been working with the people of Madagascar to provide solutions for the problems of deforestation, pollution, and poverty through a variety of projects involving **community development, biodiversity conservation, and environmental education**. Our small team works alongside local people in order to **empower the population at a community level** and to teach them **practical conservation skills** that are sustainable for both them and the environment.

2020 was a particularly challenging year for us at IMPACT Madagascar, as well as for the world. We experienced firsthand the disastrous effects that the pandemic had on wildlife conservation, and on Madagascar as a whole. Like many countries whose national economies rely on tourism, Madagascar was devastated by the travel restrictions and the resulting loss of visitors. The countless people who rely on tourism revenue were left struggling for their livelihoods.

However, we continued with our planned activities as much as possible and **never gave up** on doing what we could. We continued with our conservation efforts at a time when the communities and the environment needed the most support. We focused on much of the same activities that form the basis of our organization, but with **renewed vigor and urgency** because of the effects of the pandemic.

We placed a particular emphasis on **community health** by providing **COVID-19 prevention materials** to our sites, we continued to provide **alternative livelihoods** which was especially needed when most households' incomes were cut, we increased the amount of **environmental surveillance** and patrols being carried out by our wildlife rangers in order to protect the habitats that were more vulnerable than ever, and we carried out **habitat surveys** to measure the true effects of the pandemic and ensure that the ecosystems were still being protected.

IMPACT Madagascar has always been dedicated to finding conservation strategies that are practical for local people and also beneficial for Madagascar's wildlife. We acknowledge the economic difficulties that communities were facing and so when we increased the patrols to protect the habitats from overexploitation, we also increased the materials and trainings for the successful implementation of **income generating activities**. We always try to create a **balance** between protecting the environment and supporting the local communities because successful conservation relies on this balance.

2020 was also the year that we reached the next stage in our work to establish a New Protected Area (NAP) in the Betsiboka and Boeny regions. This proposed NAP is in northwest Madagascar and will combine our Ankirihitra and Madiromirafy sites into one protected zone. After all our hard work, we have successfully **gained approval** from the key stakeholders and the regional authorities to move on with the establishment of this NAP!

This report is not inclusive of everything IMPACT Madagascar carried out during 2020, but rather will cover the results of our main activities and will provide a summary of our biggest achievements of the year.

See how we made a difference in Madagascar this past year!

Our Response To COVID-19



Distribution of hygiene materials and explanation of their importance and proper use in Mahajeby.

We are committed to ensuring the safety of the communities we work with, especially during the COVID-19 pandemic. At our Ankirihitra, Dabolava, Madiromirafy, and Mahajeby sites, we distributed a total of:

42 hand-washing stations, more than 1,110 bars of soap, 50 bottles of hand sanitizer, 520 face masks, and 500 posters explaining preventative measures.

These materials were distributed to a variety of people including local guides, patrol officers, schools, local authorities, and community-based conservation associations.



Community member using one of the handwashing stations in Madiromirafy.



Distribution of materials in Ankirihitra.

By supporting community health, we can help ensure the well-being of both Madagascar's people and its ecosystems.

Lemur Species at Our Sites

Lemurs are the most threatened group of mammals on the planet. There are more than 112 lemur species and around 95% of them are threatened with extinction. They are endemic to the island of Madagascar, meaning they are found nowhere else on Earth. We work hard to protect these unique animals through a holistic conservation approach. See below the six lemur species that currently reside at our project sites and benefit from our conservation efforts.



Crowned sifaka (*Propithecus coronatus*)
IUCN Red List Status: Critically Endangered (CR)
Found at: Ankirihitra, Dabolava,
Madiromirafy, Mahajebly



Red brown lemur (*Eulemur rufus*)
IUCN Red List Status: Vulnerable (VU)
Found at: Ankirihitra, Madiromirafy

Diurnal



Greater bamboo lemur (*Prolemur simus*)
IUCN Red List Status: CR
Found at: Vohitrarivo



Mongoose lemur (*Eulemur mongoz*)
IUCN Red List Status: CR
Found at: Ankirihitra, Mariarano

Cathemeral



Grey mouse lemur (*Microcebus murinus*)
IUCN Red List Status: Least Concern (LC)
Found at: Ankirihitra, Madiromirafy



Fat-tailed dwarf lemur (*Cheirogaleus medius*)
IUCN Red List Status: VU
Found at: Madiromirafy, Mahajebly

Nocturnal

Threatened Species at Our Sites

According to the IUCN Red List, threatened species are those that are categorized as Vulnerable (VU), Endangered (EN), or Critically Endangered (CR). These are the reptile, bird, mammal (excluding lemurs), and fish species that we have identified as threatened across our 4 sites where the Sifaka Conservation programme is ongoing.



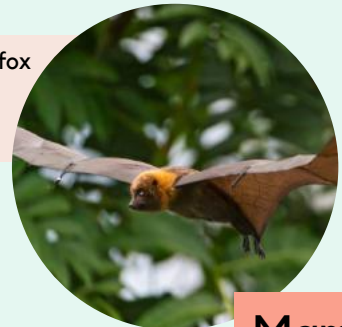
Madagascar big-headed turtle
(*Erymnochelys madagascariensis*) **CR**
Found at: Ankirihitra, Madiromirafy, Mahajeby

Reptiles

Source: Anthony Stanley



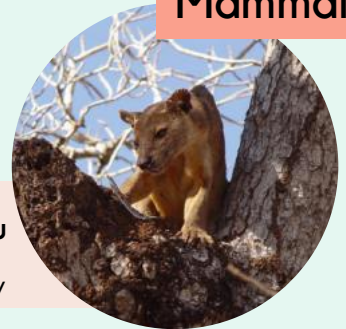
Flat-tailed tortoise
(*Pyxis planicauda*) **CR**
Found at: Ankirihitra, Madiromirafy



Madagascar flying fox
(*Pteropus rufus*) **VU**
Found at: Ankirihitra, Madiromirafy

Source: Animalia.bio

Mammals



Fosa
(*Cryptoprocta ferox*) **VU**
Found at: Ankirihitra, Madiromirafy, Mahajeby

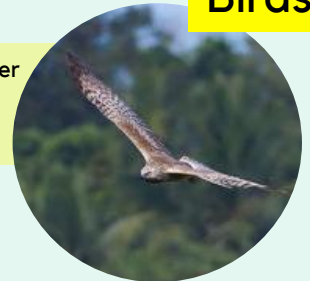
Source: Luke Dollar

Fish



Damba cichlid fish
(*Paretroplus maculatus*) **CR**
Found at: Madiromirafy

Birds



Madagascar marsh-harrier
(*Circus macrosclees*) **EN**
Found at: Ankirihitra, Madiromirafy

Source: Paul van Gierbergen



Powder-blue panchax
(*Pachypanchax omalonotus*) **EN**
Found at: Madiromirafy



Madagascar heron
(*Ardea humbloti*) **EN**
Found at: Ankirihitra, Madiromirafy

Source: D. Tourle



Betsiboka cichlid fish
(*Paretroplus tsimoly*) **EN**
Found at: Madiromirafy



Kotsovato
(*Paretroplus kieneri*) **VU**
Found at: Madiromirafy

Madagascar fish eagle
(*Haliaeetus vociferoides*) **CR**
Found at: Ankirihitra, Madiromirafy



Source: Paul Loisel/IUCN



Paratilapia polleni **VU**
Found at: Mahajeby



Van Dam's vanga
(*Xenopirostris damii*) **EN**
Found at: Ankirihitra, Madiromirafy

Source: Mike Danzenbaker

ANKIRIHITRA SITE



The *commune rurale* of Ankirihitra is located in the northwest of Madagascar in the Boeny region. It is well known for its large expanse of gallery and dry forests and for its rich biodiversity. Currently, two community-based conservation associations (VOIs) manage the natural resources of the area and two more are in the process of being finalized.

12,000+ tree seedlings produced in the nursery

Of which, **3,000** were planted on **2 hectares** of land during community reforestation events. **5 hectares** of reforested land were maintained.

During our annual biodiversity survey, **175** crowned sifaka individuals, from **44** groups were monitored.

Densities for the lemur species were also recorded: **378 ind/km²** for the crowned sifaka, **6.74 ind/km²** for the mongoose lemur, and **46.77 ind/km²** for red brown lemur.



Patrollers watering and caring for reforested saplings.



A crowned sifaka (left) and two mongoose lemurs (right) in *Treculia perrieri* trees known locally as *Tsidpahy*. Lemurs are known to eat these large fruits when they are in season. These trees are one of the species we produce in our nurseries and plant during reforestation.

ANKIRIHITRA SITE

744 members of 2 VOIs (community-based conservation associations) and 2 new VOIs in the final stage of creation



A capacity building session with some of the VOI members.



Ankirihitra patrollers (polisin'ala) during a patrol.

260 patrols carried out by a team of four rangers per patrol
3,000 hectares surveyed on average per month

361 beneficiaries of income-generating activities

In 2020, these beneficiaries:

- Cultivated **7.4 hectares** of land
- Produced **15.9 tons** of irrigated rice
- Grew **2.5 tons** of leafy vegetables; **1,481 kg** of cucumber, zucchini, and tomato, and **74 kg** of onions
- This produce is used for subsistence and also sold to cover household expenses.



A beneficiary of the market gardening livelihood activities looking over the leafy vegetables she and other community members planted.

DABOLAVA SITE

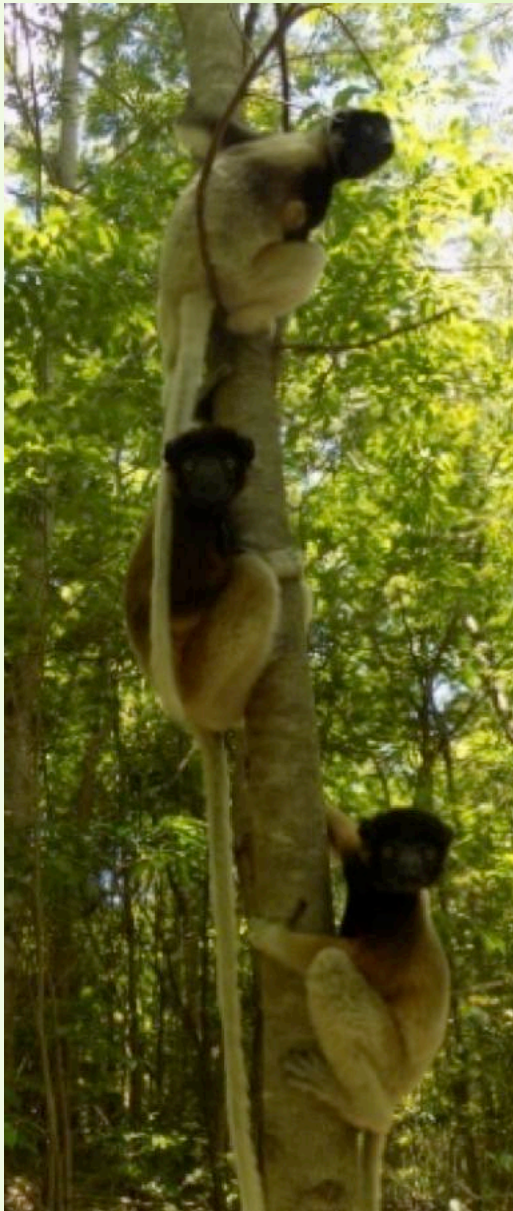


Dabolava is a commune located in the central highland of western Madagascar, in the Menabe region. It contains Amboloando forest, which is the most southern distribution range of the crowned sifaka.

22,721 saplings produced in the nursery



Covering over **4 hectares** of land, **7,550** young trees were planted by **470** community members, including families, students, VOI members, and authorities.



There is a total of **3** groups of crowned sifakas, made up of **15** individuals, including **2** newborns!



(Left) Three *P. coronatus* individuals in the forest.
(Above) Local guides working on the tree nursery.

DABOLAVA SITE

120 total VOI members, with **60** new members in 2020

More than **240** patrols were carried out in order to monitor the threats within the **63 hectares** of gallery forest, including the restored forest area.

In 2020, there were **129** beneficiaries of income generating activities.

These beneficiaries produced:

- **11.20** tons of corn
- **37.42** tons of irrigated and rainfed rice
- **822.5** kg of leafy greens
- **1,169** kg of zucchini, tomato, and cucumbers
- **90** kg of onions



*(Top) An abundant market garden by a beneficiary.
(Bottom) Beneficiaries working on their rice fields.*

MADIROMIRAFY SITE



The Madiromirafy site is found in the Betsiboka region. It is made up of two distinct ecosystems, the Mandrava gallery forest, and the Madiromirafy wetlands and lakes. Both areas are important habitats for numerous critically endangered and threatened endemic species.

17,000 saplings produced, of which **7,000** were planted by **600** community members, **3.5 hectares** of newly restored land



IMPACT team members and community members at the tree nursery.



VOI member pulling weeds around the reforested seedlings.



146 crowned sifakas
30 groups
15 babies

3 other lemur species found at the site: *Eulemur rufus*, *Cheirogaleus medius*, and *Microcebus murinus*

(Top) African pygmy goose (*Nettapus auritus*) in the wetlands.

(Bottom) *P. coronatus* individuals in the forest, including one newborn.

MADIROMIRAFY SITE

There are **297** VOI members, with **60** newly registered in 2020!

10 forest and wetlands rangers conducted **208** patrols, providing protection to an area of **350** hectares of land and **1,440** hectares of wetlands.



Drying of corn cobs grown by beneficiaries.

In 2020, there were **238** beneficiaries of livelihood generating activities including vegetable and rice farming, and poultry farming.

They successfully produced a total of **23.25 tons** of corn, **240 kg** of rainfed rice*, **394 kg** leafy vegetables, and **787 kg** of tomatoes, cucumber, and zucchini.

* Rice production was much lower than usual in 2020 due to heavy rains and flooding in the region.



*(Top) A beneficiary feeding the ducks she is raising.
(Bottom) Beneficiaries and rainfed rice they cultivated.*

MAHAJEBY SITE



Mahajeby is found in the region of Bongolava in central-western Madagascar. Conservation activities took place in four villages in the area: Mahajeby, Kamolandy, Ambohimena, and Sahatampoka.

6.5 hectares of land were restored.



A forest ranger planting a seedling

16,200 saplings were planted by **750** community members!



Our annual survey found **77** *Propithecus coronatus* individuals including **10** babies, made up of **17** groups



Crowned sifakas in the forest.



(Top) Young trees growing in the nursery.
(Bottom) Some of the participants in the community reforestation events.

MAHAJEBY SITE



Forest rangers during a patrol.

There are currently **230** VOI members with **55** new members who joined in 2020.

10 rangers patrol the forests and wetlands. They carried out over **200** patrols in 2020, covering an average of **900** hectares of land per month.

There were **453** beneficiaries of income generating activities who cultivated a total of **14** hectares of land.



A member of the women's association showing her embroidered tapestry.



Garden of one of the market gardening beneficiaries.

The beneficiaries produced: **35.57 tons** of rainfed rice; **12.2 tons** of zucchini, cucumber, and tomato; **25.5 tons** of leafy greens; **2,615 kg** of carrots, and **2,205 kg** of onions.

VOHITRARIVO SITE



The Vohitrarivo site is in the southeast of Madagascar, in the Vatovavy-Fitovinany region. Our activities were focused in the villages of Vohitrarivo, Sahofika, and Ambodigoavy. In collaboration with Help Simus, we worked to reinforce the conservation program of the Greater Bamboo lemur in the Vohitrarivo area using community-based conservation programs and livelihood improvement.

5,320 saplings planted by **581** community members, resulting in **4 hectares** of reforested land



27,115 tree seedlings produced in the nurseries across the three villages



One of IMPACT's agricultural technicians surveying the health of the seedlings in the nursery.

VOHITRARIVO SITE

There are **3** VOIs made up of a total of **310** members: VOI MIARADIA, VOI SAMIVAR, and VOI MANIRISOA, which became official in 2020.

557 beneficiaries of income generating activities who cultivated a total of **7.35** hectares of land and produced:

- **455** kg of cucumber
- **4,957** cabbages
- **2,545** kg of zucchini
- **5.57 tons** of leafy greens
- **117** cups of angivy (small white eggplants)
- **3.57** tons of irrigated rice*

*Rice production is usually higher, but this year there were issues with the water supply and the weather, thus less rice was able to be cultivated.



A rice paddy of one of the beneficiaries.



(Left) One of the beneficiaries' gardens with leafy green vegetables. (Right) Our agricultural technician demonstrating to beneficiaries how to use equipment to improve the production of their gardens.

SOME SETBACKS & SOLUTIONS

- This year was marked by two natural disasters in the areas where we work: floods in Ankirihitra and Madiromirafy and a fire in Mahajeby. Both events caused extensive damage and were exacerbated by the changes in the environment due to our changing climate.
- In Ankirihitra, the flood caused many complications in the village, but in terms of our activities, it caused serious damage to the tree nursery. Because of the flood, we lost 9,000 seedlings intended for 2020 reforestation.
- In Mahajeby, because of the dry heat, very little rain and drought, fire spread very easily and engulfed a portion of the village. Many homes were destroyed and left people with absolutely nothing.
- To address the seriousness of these events, **we will start implementing nature-based solutions with support from the Whitley Fund for Nature.** This project will work to mitigate the effects of climate change and to work to avoid damage and disaster such as these in the future.



Rangers repairing the damage to the nursery that was severely flooded in Ankirihitra.



Some of the damage caused by the fire in the village of Mahajeby.

- As mentioned in the introduction, some of our planned activities were affected by the pandemic. This included an important ongoing community development project at our sites: the production of fuel-efficient stoves. We provide community members with molds and training in how to use the molds to produce the stoves themselves. These trainings include informational sessions in which the importance of these stoves are explained, what their benefits are, and how they can save money as well as conserve forest resources.
- Because of the restrictions put in place due to the pandemic, the training was only carried out in Madiromirafy. However, the production of the rocket stoves continues successfully in Mahajeby. In 2021, we will put this program back into place and hope to expand it even more than before.



Trainings that were carried out this year in Madiromirafy.



Finished stoves made by community members in Mahajeby.

2020 ANNUAL TOTALS

- **95,036** seedlings produced at on-site nurseries
- **39,070** seedlings planted in community reforestation events
- **43.5** hectares of land restored
- **384** crowned sifaka individuals surveyed, including **53** babies
- **8** VOIs in total, with **3** more in the process of being formalized
- **1,701** VOI members
- **Over 750** patrols carried out in the forests and wetlands
- **4,970** hectares of land covered on average per month during patrols across our sites
- **1,738** beneficiaries of income-generating activities
 - **28.75** hectares of land cultivated by beneficiaries
 - **21.25** tons of cucumber, zucchini, tomato and carrots
 - **92.7** tons of rice produced by beneficiaries
 - **34.45** tons of corn
 - **34.8** tons of leafy greens
 - **2.37** tons of onions



Wildlife Ranger Challenge

This year we participated in a global initiative called the Wildlife Ranger Challenge. This was a special campaign that focused on raising awareness and funds for wildlife rangers across Africa and to acknowledge their heroic work. The Challenge was a half marathon race in which many ranger teams competed against one another.

All of the rangers at our Mahajeby site completed a course of over 23 km, carrying all their supplies and equipment. They covered the entire area of forest fragments that make up the protected area locally managed by VOI FIARO. They don't usually cover that much area all in one day, but on this day it was a part of the challenge and was done alongside the many other participants around the world.



Some of the Mahajeby rangers during a patrol.



The Mahajeby rangers ready to start their circuit on race day.

With the COVID-19 pandemic, the role that rangers play became more important than ever. The resulting loss of income led to a rise in the exploitation of natural resources and illegal wildlife activities. Where IMPACT Madagascar works, where some of the last remaining fragments of dry and gallery forest exist and where wetlands and lakes act as crucial water sources for local communities, habitats are being decimated by unsustainable use. Even in normal times these ecosystems are put under immense pressure, and during the pandemic when people have nowhere else to turn for subsistence, the fauna and flora are even more at risk.

The main way to ensure that these vulnerable habitats aren't completely decimated is to offer them protection through frequent environmental surveillance. Our rangers are community members who tirelessly patrol the forests and the wetlands to make sure that the natural resources are not being overexploited or destroyed. These rangers are out in the field day and night, protecting the plants and animals that cannot protect themselves, taking a stand for the voiceless, and making sure these unique species can survive into the future. **Without the essential work of these rangers we would not be able to do the work we do.**

For IMPACT Madagascar, the funds raised by this campaign covered salaries for about 60 rangers, enabling them to provide for their families, protect communities and defend endangered wildlife in vulnerable areas.

Establishing the Ankirihitra-Madiromirafy New Protected Area

- This year we have been working hard to establish two of our project sites in northwestern Madagascar (Ankirihitra and Madiromirafy in the regions of Boeny and Betsiboka, respectively) as a complex wetland - gallery forest protected area.
- This is particularly important because one of the most threatened ecosystems on a global scale are tropical dry and gallery forests. In Madagascar, accelerated rates of deforestation menace the remaining patches of dry forests and only a few small areas formally under protection endure and much of these forests have been neglected by conservation projects for decades. However, these habitats are linked with important rivers and lakes (which are crucial for surrounding communities' lives), and sustain high levels of diversity and densities of critically endangered species. The Ankirihitra and Madiromirafy sites contain some of these rare surviving dry and gallery forests, in addition to significant wetlands.
- Establishing a protected area here will not only afford protection to these watersheds and threatened biodiversity, but will also raise awareness about the importance of these habitats, open up opportunities for further development projects, and attract global funding.



During the workshop in Mahajanga, December 4, 2020



The participants of the Mahajanga workshop.

- After preliminary meetings and consultations with stakeholders to carry out the first steps of establishing this new protected area, IMPACT Madagascar held a workshop in Mahajanga. This workshop was attended by all the key stakeholders and we presented our proposal for the new protected area to members of the Ministry of the Environment and Sustainable Development (DIREDD), regional government officials, and local decision-making authorities. There were presentations from stakeholders, lots of discussion about the project and ample opportunity for questions and concerns to be addressed.
- In total, 29 stakeholders participated and at the end a vote was held. The results were unanimous: all of the participants voted in favor of moving forward with the creation of the new protected area! They came to understand the positive impacts it would have and how it would benefit the land and also the local communities.
- In 2021, we will continue to progress with this project and take the next steps in order to formalize the protection of the Ankirihitra-Madiromirafy area.



Signage from the Mahajanga workshop.

THANK YOU VERY MUCH

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