



Group photo of local workers restoring the detached parcel Andranoanala , August 2024, © WCS/ Merally Abdy

Annual Report

Supporting the conservation of Andranoanala,
Masoala National Park, Madagascar

Project Leader: Félix Ratelolahy

Funds: Zoo Zurich

Period of the project: 5 years (2021-2025)

Amount: \$300,000

Reporting period: January 2024 – December 2024

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I. INTRODUCTION

The detached parcel of Andranoanala or PD No.1 Andranoanala is one of the detached parcels of Masoala National Park managed by Madagascar National Parks (MNP) in the North-East of Madagascar. It covers a sandy land area of about 1,300 ha and is covered primarily by a fragile littoral forest essentially composed of *Nephentes masoallensis*, and inhabited by *Allocebus trichotis*, *Hapalemur occidentalis* and *Eulemur Albifrons*. There are also various plants of great importance such as the precious wood species *Dalbergia montila* and *Dalbergia normandii*.

The Wildlife Conservation Society (WCS) has been carrying out restoration work in this area since 2011 with funding from the Abantu Foundation. Unfortunately, the detached parcel of Andranoanala has experienced very destructive bushfires that destroyed almost 84 hectares in 2014, including the parts restored since 2011. As of April 2016, the Zurich Zoo took over and became the primary financial partner.

With funding from Zurich Zoo and in close collaboration with Madagascar National Parks (MNP) Masoala, WCS is committed to supporting Masoala National Park by strengthening its protection, restoration, and conservation activities of the detached parcel of Andranoanala. Aware of the value of this detached parcel and its fragility threatened by a multitude of pressures caused by 1,800 households in 2011, Abantu Foundation and Zurich Zoo have provided support to the parcel's restoration project. Through the end of 2020, this support has allowed the restoration of 266 ha of land degraded by bushfires, the development of income-generating activities for more than 230 households of the surrounding population, the launch of communication and awareness campaigns for the local population through large festivals and nature tours for schoolchildren.

The third phase of the project extends over five years (from January 2021 to December 2025) and aims to maintain the restoration already achieved in 2015-2020 and to produce 140,000 seedlings to cover a new degraded area of 200 ha.

This report summarizes the achievements from January until December 2024, including:

- The restoration of more than 53 ha of degraded habitat in Andranoanala,
- The installation of 14,000 m of firebreak around the park's detached parcel,
- The continuation of various construction projects (office and footbridges),
- And the implementation of the park's communication and awareness-raising strategy.

Unfortunately, we must also report on a bush fire that burned in Andranoanala on October 5th and 6th. About 150 hectares burned, including 90 ha outside the park and 60 ha within park boundaries. Within the park limits, about 36 ha of the burnt area had been restored between 2012 and 2023. Fields of vanilla, clove, manioc, etc. grown by the local population in the vicinity of this fire were also burnt.

II. MAJOR ACHIEVEMENTS IN 2024

Activity	Indicator	Achievements
Objective 1 : Reforestation		
1.1 Forest Restoration		
1.1.1 Monitoring and evaluation of restoration	4 monitoring missions per year between Antalaha and Cap Est and/or Maroantsetra and Cap Est	4 monitoring missions carried out
1.1.2 Tree nursery set up, planting and maintenance of plots	28,000 seedlings will be transplanted each year over an area of 40 hectares.	48,037 plants were transplanted covering an area of 53,4 ha. 66,3 ha were maintained
1.1.3 Nursery and restoration field supplies	Field supplies purchased at the beginning of every year	2 printers, 1 Nikon camera with 2 batteries, 4 SD cards, 1 stabilizer, 2 Timex, 2 lights and 1 backpack purchased
Objective 2 : Site Management		
2.1 Rehabilitation and functioning of WCS-MNP office post		
2.1.1 Service contract to rehabilitate office building	Construction contracts complete with office building rehabilitated	Construction completed; final acceptance planned for March 2025
2.1.2 Office supplies for post	Office furniture and electronics purchased in second year with office supplies purchased each year.	Pending
2.1.3 Installation of solar panels and electricity	Office has functioning electrical system for charging electronics and lighting.	Completed and integrated in rehabilitation office building contract
2.1.4 Payment of office security for post	Security guard recruited and salary paid for 4 years of the project.	The recruitment process was unsuccessful, the position will be reopened.
2.2 Park boundary demarcation in high threat areas		
2.2.1 Field missions and supplies to mark park limits	46 metal sign boards will be manufactured and installed around the park limit.	Completed
2.3 Guard tower and fire protection		
2.3.1 Rehabilitation of final guard tower	One guard observation tower rehabilitated	Pending, the concept is awaiting approval on environmental respect
2.3.2 Fire breaks for restoration plots and park limits	7.4 km of fire breaks (each 2.5 metres wide) made each year.	14.2 km of fire breaks were opened
2.4 Tourism promotion		

2.4.1 Tourism information panels	4 information panels made in year 2 and 4.	
2.4.2 Tourism infrastructure rehabilitation	Trail platform built.	Rehabilitation in progress, finalization planned for March 2025
Objective 3: Sustainable Livelihoods		
3.2 Environmental education		
3.2.1 Posters and other communication material to encourage park protection	Posters and communication material disseminated each year.	Completed
3.2.2 Supporting annual environmental festivals for the site	Supplies provided for World Environment Day festival each year.	Two regional reforestation campaign supported: Fenerive Est and Maroantsetra
3.2.3 Providing school supplies around the park	School supplies provided each year.	
3.3 Promotion of sustainable agriculture		
3.3.1 Socio-economic study for households living around the edge of the park	Socio-economic study report developed	Completed in 2023
3.3.2 Providing cash crops to farmers living on the boundary of the park	200 farmer beneficiaries receive cash crops each year.	Planned for 2025
3.3.3 Community meetings to establish conservation contracts to protect the park	At least 2 community meetings held each year	In progress

III. PROGRESS SUMMARIES

1. Reforestation

1.1 Forest restoration

The detached parcel of Andranoanala is managed by MNP Masoala. This year, the collaboration between the two institutions, MNP and WCS, continued. Two permanent nurserymen are based at the restoration site in Ambohitralanana to help restore this vestige of coastal forest on Madagascar's north-east coast. WCS and MNP worked together to extinguish the fire that took place over two days in October and to compensate the community members who participated in firefighting.

1.1.1. Monitoring and evaluation of restoration

This year, five monitoring and evaluation missions were carried out:

- A mission was carried out in January 2024 as part of the 2024 reforestation campaign in Sambava. The event was attended by various authorities from the Direction Régionale de l'Environnement et du Développement Durable (DREDD) SAVA, the SAVA region, various partner organizations such as WWF, the Red Cross, AFAFI Nord, Soavoanio, schools and various women's associations. A total of 25,000 seedlings were transplanted, covering an area of 28ha.

- A mission was carried out in January 2024 as part of the regional launch of the reforestation campaign in the SAVA region, more specifically in the districts of Andapa and Antalaha.
 - For Antalaha, the event was honored by the presence of representatives from the Antalaha Environment and Forestry Department, the rural commune of Ampahana, partner associations and NGOs (Graine de Vie, Duke Lemur Center, MNP, and Henri Fraise), schools and local communities. A total of 10,629 seedlings were transplanted on an 8-hectare area in Andranotsara.
 - For Andapa, the event was attended by representatives of the Cantonnement de l'Environnement et Forêt d'Andapa, the rural commune of Andasibe Kobahina, partner organizations (MNP, Helvetas, SYMRISE, Mahavelona), schools, the gendarmerie and local populations. During the event, 6,150 seedlings were transplanted over a 3-hectare area.
- A follow-up mission to the restoration site was carried out in January 2024 with the restoration team, during which two nursery sites and four restoration plots were visited.
- A follow-up mission to the restoration site was again carried out in November 2024 with the restoration team, in the presence of a representative of the project's donor. This visit provided an opportunity to observe the success of the restoration efforts through a tour of the nurseries and transplanting areas. It also provided an opportunity to discuss the importance of having a good strategy for fighting fire, which is often caused by migrants rather than local communities.

1.1.2. Tree nursery set up, planting and maintenance of plots

After the two-day fire in early October that burned 36 ha of previously restored land, some of the affected saplings survived and are now regrowing. According to counts carried out by our team, 20% of affected saplings have survived and are continuing to regrow. These include Ambora (*Tambourissa* sp.), Trasina, Matrambody (*Asteropeia matrambody*), Foraha (*Calophyllum* sp.) and Hintsina (*Intsia bijuga*).

During this reporting period, 74,236 seeds were collected, enabling the production of 43,591 nursery seedlings. In addition, 48,037 plants were transplanted, covering an area of 53.4 ha.



Transplanting in pots, July 2024, © WCS/ Merally Abdy

As part of the maintenance of the restoration site, 4,325 dead plants were replaced and 61,471 seedlings were maintained, covering an area of 66.3 hectares.

For 2024, the detached parcel of Andranoanala recorded a success rate of 93%.



Silvicultural maintenance, June 2024, © WCS/ Merally Abdy



Transporting seedlings to the Andranoanala restoration site, July 2024, © WCS/ Merally Abdy

2. Site Management

2.1. Rehabilitation and functioning of WCS-MNP office post

2.1.1 Service contract to rehabilitate office building

During this period, construction work progressed, with the final completion expected in March 2025. More specifically, this includes the:

- Rehabilitation of the MNP-WCS office in Andrakadilana Masoala: painting, rehabilitation of doors and windows with insect-resistant hardwood, roofs, water tanks and sanitary facilities, and installation of solar panels,
- Construction of a 6m x 5m wooden bungalow near the office,
- And the rehabilitation of the well near the office (cover and cleaning).



WCS-MNP Office, April 2024, © WCS/ Jimmy Franck



WCS-MNP Office, April 2024, © WCS/ Jimmy Franck

2.1.2 Office supplies for post

The office equipment was not acquired during this period, as construction of the office had not yet been completed, and the security guard had not yet been recruited. This activity is planned for 2025.

2.1.3 Installation of solar panels and electricity

Installation of the solar panels and electrical system in the new Andranoanala office is integrated into the office refurbishment contract and will be finalized in March 2025.

2.1.4 Payment of office security for post

This year, the recruitment of a security guard for the new office in Andranoanala was opened but was not successful. The position will be reopened in 2025.

2.2 Park boundary demarcation in high threat areas

Activities completed in 2023 with 46 panel installations within the park boundary.

2.3 Guard tower and fire protection

2.3.1 Rehabilitation of final guard tower

This study will be carried out for the entire WCS program and cannot be completed in 2025.

As the construction of an additional guard tower at Andranoanala has been achieved, the remaining budget will be used to complete the office construction budget.

2.3.2 Fire breaks for restoration plots and park limits

As bushfire is the most pressing threat to the park, the maintenance of firebreaks by reopening the layon is one of the project's major activities. This year, around 7.5 kilometres of firebreaks that measure 10 to 12 metres wide were maintained in Andranoanala in August and September.

2.4 Tourism promotion

2.4.1 Tourism information panels

As part of its contribution to the conservation of the Masoala National Park in Andranoanala, WCS is also involved in promoting ecotourism in the area. In 2023, information panels at the park's entrance areas were designed. The content of the panels mainly concerns the *Nepenthes masoalensis* or Tsiveravera, an emblematic species of the Masoala site.

Panels will be produced and installed at Ambodirafia and Ambohitralalana in 2025.

2.4.2 Tourism infrastructure rehabilitation

The rehabilitation of the 104-metre concrete footbridge at the entrance of the detached parcel of Andranoanala began in 2023 and is nearing completion. It is designed to improve access to the park.



Footbridge in detached parcel Andranoanala , December 2024, © WCS Madagascar

3. Sustainable Livelihoods

3.2 Environmental education

3.2.1. Posters and other communication material to encourage park protection

The production of a roll up aimed at encouraging the preservation of the Andranoanala is completed.



Roll up for Andranoanala, April 2024, © WCS Madagascar

3.2.2. Supporting annual environmental festivals for the site

An Analanjirofo regional reforestation event was organized in February 2024 in the Tampolo Reserve, Fénérive-Est District, with the aim of encouraging everyone to participate in achieving the national reforestation objective. This new Protected Area is one of the largest remnants of coastal forest in Eastern Madagascar and is under serious threat from illegal logging and bush fires. Its restoration is particularly

difficult because of the nature of the soil, which is sandy and poor in organic matter. Participation of all in the protection and rehabilitation of this site is important to guarantee its role in ecotourism, contributing to the regional economy, climate regulation and citizen education. WCS therefore supported the media coverage and sound system for the event.

WCS staff also took part in reforestation work in the Maroantsetra district in February 2024. The project was able to support the transportation of seedlings to the reforestation site.

3.2.3 Providing school supplies around the park

Five schools around the Andranoanala detached parcel were provided with school equipment in 2023 so the remaining budget will be used to complete the objectives of incomplete activities of the project.

3.3 Promotion of sustainable agriculture

3.3.1 Socio-economic study for households living around the edge of the park

A socio-economic survey of the detached parcel of Andranoanala was carried out in 2023. This service aims to improve the protection of the park and ensure that the beneficiaries of conservation projects are those living around its boundaries. The survey provided general information on the population, the state of education and health, information on land, income, energy, food resources, production and fire. In general, households need to improve their farming practices, including getting help with clove and coconut tree nurseries, vanilla vines, treatment of vanilla tree diseases, creation of drainage channels, and improvement of soil fertility (fertilizing, burying manure or compost, tilling). A total of 125 people were surveyed, including 34 women.

3.3.2 Providing cash crops to farmers living on the boundary of the park

Building on the findings of a socio-economic study conducted in Andranoanala and insights gained from a four-year successful and dynamic cocoa agroforestry project in eastern Makira Natural Park supported by GIZ and the private company, Halba, support for dynamic agroforestry will be extended to the Andranoanala community in 2025.

3.3.3. Community meetings to establish conservation contracts to protect the park

As part of the support from Hempel, WCS is working with the MIRARI project team to provide technical support, advice and capacity building for the development of a Community Management Agreement at the COBA level. The aim of this support is to facilitate the development and signature of the agreement.

The process is governed by a ministerial framework, which determines its progress and completion. However, regardless of the contract signing, WCS will proceed with implementing dynamic agroforestry in the area, as community sensitization and needs assessment have already been conducted.

Table 2. Project progress

Expected results at the end of the project in 2025	Situation in 2024	Achievements
200 ha of reforested area with 140,000 transplanted plants	176.3 ha of reforested area	88,15 %
319 ha of restored area maintained	218.12 ha of restored area maintained	68,4 %
MNP-WCS office rehabilitated and functional: secured, equipped with electricity, furniture, equipment, and materials and stocked with supplies	Equipment, security and electrification are still in progress	60%
20 monitoring missions carried out	18 monitoring missions carried out	90 %
1 guard tower built	1 guard tower-built	100%
Establishment of 7.5 km fire break per year	Establishment of 14.5 km fire break in 2024	100 %
10 fire break maintenance missions performed	12 fire break maintenance missions carried out	120 %
Park boundaries marked with 24 signs to be installed every 500 meters and 22 spare signs	46 metals sign limits installed	100 %
For the tourist promotion of the park, 4 information panels installed in the park and in Antalaha	Tourism information panel designed	In progress
5 communication supports	1 roll up completed	20 %
5 environmental festivals supported	9 environmental festivals supported	180 %
5 schools and relay structures supported and equipped per year	5 schools provided with school supplies	100 %
200 farmers per year, beneficiaries of support for the development of their cash crop	Delayed	0%
1 Conservation Agreement established	In progress	30%
10 conservation Agreement community meetings held	10 community meetings held	100 %

IV. CONCLUSION

In 2024, more than 53 ha of additional degraded areas were restored, bringing the total of restored plots to over 176.3 ha and 218.12 ha maintained. The various construction projects continued and are scheduled for completion next year. Communication and awareness-raising strategies have been strengthened, mainly through support for the park's tourism activities, the organization of environmental events and the design of a roll-up.

WCS and MNP were able to successfully mitigate the two-day fire that took place in early October. Immediately after the fire, a meeting was held with the local authorities to find a long-term solution. At the same time, another meeting was also held with the team and the Director of the Masoala National Park. The following measures have been taken or planned to reduce future risks:

1. **Creation of a double firewall** that is 40 to 50 meters wide, parallel to the old firewall, in the areas most at risk,
2. **Reinforcement and installation of wells** every 100 meters along the firewall, in the most exposed sectors,
3. **Improvement of fire-fighting equipment**, including:
 1. Prevention and surveillance equipment,
 2. Detection and warning equipment,
 3. Fire-fighting equipment (motor-driven pumps with hoses, portable water pumps, fire hoses, water bags, etc.),
 4. Safety equipment for responders,
4. **Recruitment of fire brigades** who are responsible for fire monitoring, particularly during the dry season (September to February),
5. **Strengthening of awareness-raising campaigns** before, during and after the dry season, the last phase of which will serve as an evaluation of the mentioned preventative actions carried out,
6. **Organization of a massive field trip** in May 2025 with the concerned authorities (*Tangalamena*, President of the *Fokontany*, Mayor, District Chief, DREDD, Police, Deputy) to see the topography on site and evaluate the actions to be taken,
7. **Holding of a new meeting in May 2025** with all the authorities concerned to renew and strengthen the *DINA*, which will then be approved by the court,
8. **Installation of drainage** in the marshy area in the south of the park, a frequent source of fires. This measure is in response to the request of the *Tangalamena*, the Mayor and the inhabitants who own land around the park,
9. **Continuation of the permaculture project** around the park.

WCS Madagascar would like to express its gratitude to Zurich Zoo for its generous contribution to the restoration of the detached parcel of Andranoanala.

For 2025, WCS plans to continue restoration activities to reach the target of 200 ha restored.

In addition, ongoing rehabilitation work on the office and footbridge will be completed in 2025.

This year will also see the replication of dynamic agroforestry activities in the Andranoanala area.

These activities will be supported the installation of the tourism information panel.

Annexes :

1. Financial Report 2024
2. Workplan 2025

Annex 1 : Financial report 2024



WCS
MADAGASCAR PROGRAM

Financial Report 2024 Andranoanala

Project name: Supporting the conservation of Andranoanala, Masoala National Park, Madagascar
Grantor: Zoo Zurich
Code: 300542/MAD082
Grant period: January 2021 – December 2025
Reporting period: January 2024 – December 2024

Description	Total Budget 2024 (with carry over)	Total Spent 2024	Balance	%
Objective 1: Reforestation	\$ 15,457	\$ 14,283	\$ 1,174	8%
1.1 Forest Restoration				
1.1.1 Monitoring and evaluation of restoration	\$ 3,250	\$ 1,037	\$ 2,213	68%
1.1.2 Tree nursery set up, planting and maintenance of plots	\$ 10,240	\$ 12,403	\$ -2,163	-21%
1.1.3 Nursery and restoration field supplies	\$ 1,967	\$ 842	\$ 1,125	57%
Objective 2: Site Management	\$ 17,915	\$ 8,630	\$ 9,285	52%
2.1 Rehabilitation and functioning of WCS-MNP office pos				
2.1.1 Service contract to rehabilitate office building	\$ 7,991	\$ 3,580	\$ 4,411	55%
2.1.2 Office supplies for post	\$ -	\$ -	\$ -	0%
2.1.3 Installation of solar panels and electricity	\$ 1,093	\$ -	\$ 1,093	100%
2.1.4 Payment of office security for post	\$ 1,292	\$ -	\$ 1,292	100%
2.2 Park boundary demarcation in high threat areas				
2.2.1 Field missions and supplies to mark park limits	\$ -	\$ -	\$ -	0%
2.3 Guard tower and fire protection				
2.3.1 Creation of final guard tower	\$ 1,674	\$ -	\$ 1,674	100%
2.3.2 Fire breaks for restoration plots and park limits	\$ 5,310	\$ 5,050	\$ 260	5%
2.4 Tourism promotion				
2.4.1 Tourism information panels	\$ 555	\$ -	\$ 555	100%
2.4.2 Tourism infrastructure rehabilitation	\$ -	\$ -	\$ -	0%
Objective 3: Sustainable Livelihoods	\$ 7,425	\$ 328	\$ 7,097	96%
3.2 Environmental education				
3.2.1 Posters and other communication material to encourage park protection	\$ 425	\$ 56	\$ 369	87%
3.2.2 Supporting annual environmental festivals for the site	\$ 1,000	\$ 198	\$ 802	80%
3.2.3 Providing school supplies around the park	\$ 1,000	\$ -	\$ 1,000	100%
3.3 Promotion of sustainable agriculture				
3.3.1 Socio-economic study for households living around the edge of the park	\$ -	\$ -	\$ -	0%
3.3.2 Providing cash crops to farmers living on the boundary of the park	\$ 4,500	\$ -	\$ 4,500	100%
3.3.3 Community meetings to establish conservation contracts to protect the park	\$ 500	\$ 75	\$ 425	85%
Total Activities	\$ 40,797	\$ 23,240	\$ 17,557	43%
Objective 3: Sustainable Livelihoods	\$ 37,000	\$ 47,325	\$ -10,325	-28%
Operations (Rent, Utilities, Security, admin etc.)	\$ 3,000	\$ 1,563	\$ 1,437	48%
Field/Madagascar hired personnel	\$ 34,000	\$ 45,763	\$ -11,763	-35%
Total Direct Cost	\$ 77,797	\$ 70,566	\$ 7,231	9%
VI. Indirect Costs				
Grand Total	\$ 77,797	\$ 70,566	\$ 7,231	9%

SUMMARY OF RESOURCES AND EXPENSES	
	USD
Remaining fund from 2023	16,240
Received Fund April 24, 2024 from Eben Holz	60,000
Total received Fund	76,240
Expenses 2024	70,566
Remaining Fund	5,674

Approved by

Lovy RASOLOFOMANANA
Country Director

Annex 2 : Workplan 2025

Description	WORKPLAN 2025
Objective 1: Reforestation	\$ 10 600
1.1 Forest Restoration	
1.1.1 Monitoring and evaluation of restoration	\$ 1 000
1.1.2 Tree nursery set up, planting and maintenance of plots	\$ 9 000
1.1.3 Nursery and restoration field supplies	\$ 600
Objective 2: Site Management	\$ 13 560
2.1 Rehabilitation and functioning of WCS-MNP office post	
2.1.1 Service contract to rehabilitate office building	\$ 4 411
2.1.2 Office supplies for post	\$ 1 000
2.1.3 Installation of solar panels and electricity	\$ -
2.1.4 Payment of office security for post	\$
2.2 Park boundary demarcation in high threat areas	
2.2.1 Field missions and supplies to mark park limits	\$ -
2.3 Guard tower and fire protection	
2.3.1 Creation of final guard tower	\$ -
2.3.2 Fire breaks for restoration plots and park limits	\$ 4 000
2.4 Tourism promotion	
2.4.1 Tourism information panels	\$ 1 300
2.4.2 Tourism infrastructure rehabilitation	\$ 2 849
Objective 3: Sustainable Livelihoods	\$ 6 514
3.2 Environmental education	
3.2.1 Posters and other communication material to encourage park protection	\$ -
3.2.2 Supporting annual environmental festivals for the site	\$ 200
3.2.3 Providing school supplies around the park	\$ 500
3.3 Promotion of sustainable agriculture	
3.3.1 Socio-economic study for households living around the edge of the park	\$ -
3.3.2 Providing cash crops to farmers living on the boundary of the park	\$ 5 314
3.3.3 Community meetings to establish conservation contracts to protect the park	\$ 500
Total Activities	\$ 30 674
Operations	\$ 35 000
Operations (Rent, Utilities, Security, admin etc.)	\$ 1 000
Field/Madagascar hired personnel	\$ 34 000
Total Direct Cost	\$ 65 674