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2016 Annual Report

WWF Madagascar

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CONTENT

FOREWORD..... 5

MAP OF INTERVENTION
LANDSCAPES 6

PRIORITY LANDSCAPES7

SECONDARY LANDSCAPES 8



SOME MAJOR ACHIEVEMENTS AT NATIONAL LEVEL

- Education about Sustainable Development for Malagasy youth
- A WWF-CARE alliance for Madagascar
- Improved management: construction of infrastructures in national parks
- Madagascar is committed to the development of a program for sustainable access to electricity
- The national strategy for the sustainable management of the wood energy value chain is defined
- Establishing resilient protected areas
- Strengthen the capacity of civil society for better governance and combat the illegal exploitation of natural resources

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THE MAHAFALY LAND AND SEASCAPE

- Developing a sustainable and job-creating octopus value chain in the southwest of Madagascar
- Income-generating seaweed farming
- Supporting the sustainable management of the wood energy value chain in the Mahafaly landscape
- Leader civil society organizations in the Atsimo-Andrefana region

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THE MANAMBOLO TSIRIBIHINA LAND AND SEASCAPE

- A new UNESCO Biosphere Reserve
- Supporting the sustainable management of mangroves by the communities of Manambolo Tsiribihina
- Mangrove restoration, a civic responsibility led by young people and communities

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- Mangrove honey, a source of income and a means to preserving resources
- Zero deforestation, involvement of all actors in the Menabe region
- Communities and civil society organizations; working together for the sustainable conservation of natural resources
- Women, pillars of a successful conservation
- Crab value chain, a golden opportunity for the fishing communities in coastal areas
- Sustainable fisheries, benefiting humans and nature



THE NORTHERN HIGHLANDS LANDSCAPE

- The management of the COMATSA forest corridor is considered to be effective
- 50% of the COMATSA protected area is managed by village communities
- Forest patrol agents have adopted the LEM / SMART tool for better monitoring and identification of offenses
- The Sava region consolidates the application of the 'dina'

© WWF Madagascar



THE NORTHERN MOZAMBIQUE CHANNEL SEASCAPE

- The actors of the marine conservation in the Western Indian Ocean are working together for a responsible oil and gas sector
- Aqualma, the first African ASC certified shrimp farm
- The Comoros and Madagascar; exchanges to improve the management of parks and marine sites
- The first four fisheries development plans are signed by the communities of Ambaro Bay

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SECONDARY LANDSCAPES31

2016 IN NUMBERS 33

2016 FINANCIAL REPORT 34





«
**HAND IN HAND WITH
LOCAL COMMUNITIES,
WE HAVE DEVELOPED
AND TESTED SOLUTIONS
TO DEFORESTATION AND
TO THE DEGRADATION OF
NATURAL RESOURCES**»

FOREWORD

According to experts, 2016 has been the warmest year on record, but it is also the year that the Paris Agreement – a global agreement to combat climate change – has entered into force.

For Madagascar, the environmental situation of 2016 has mirrored that of the world – there were certainly some major challenges, but there were also some good future prospects to which WWF is happy to have contributed with our partners.

According to the estimates of the 2016 Living Planet Report, Madagascar could lose up to 30% of its species before the end of this century if we maintain the current rate at which we use our natural resources. Lemurs are the most endangered mammals in the world. Presently, there is a threat on the country for the suspension of international trade in wildlife due to the ineffectiveness of the governance over the exploitation of precious woods. In addition, the often uncontrolled and abusive exploitation of marine natural resources makes the lives of coastal communities increasingly difficult.

Hand in hand with local communities, we have developed and tested solutions to deforestation and to the degradation of natural resources: strengthening the management of protected areas through new tools and improved monitoring techniques; establishing fisheries management plans at community level; and enhancing natural resource management capacities of local communities.

This year is the first year of the implementation of our 2016-2020 strategic plan. With our partners, we have laid the groundwork for inclusive and integrated local development, placing natural capital at the center in each of the four priority landscapes we work: the Mahafaly Plateau and its coastline, the Manambolo-Tsiribihina mangroves, the Northern Highlands and the Northern Mozambique Channel area.

Two areas of high environmental importance to Madagascar have seen their protection status increased. In the Northern Highlands, the Marojejy-Anjanaharibe sud-Tsaratanana forest corridor (COMATSA), with an area of 318,087 ha, has officially

become a protected area and is a part of the Ambohimirahavy Marivorahona protected area complex (CAPAM) which covers 537,465 ha. In addition, the Belo-sur-Mer-Kirindy Mite site, located in the Menabe region, has obtained the status of a UNESCO Biosphere Reserve.

This year, the Aqualma farm of UNIMA, the largest producer of farmed shrimp in Madagascar, obtained the ASC eco-certification for good social and environmental practices with the support of WWF.

The concept of sustainable development is currently being integrated into the National Education Plan, to make our young people the builders of a future where harmony with nature prevails. The Government of Madagascar is committed to taking into account the country's natural ecosystems and establishing them as a part of a green infrastructure network in its future land use plan.

Indeed, 2016 has brought some good prospects for the future; let us continue our joint efforts so that these prospects soon become realities.

Thank you.

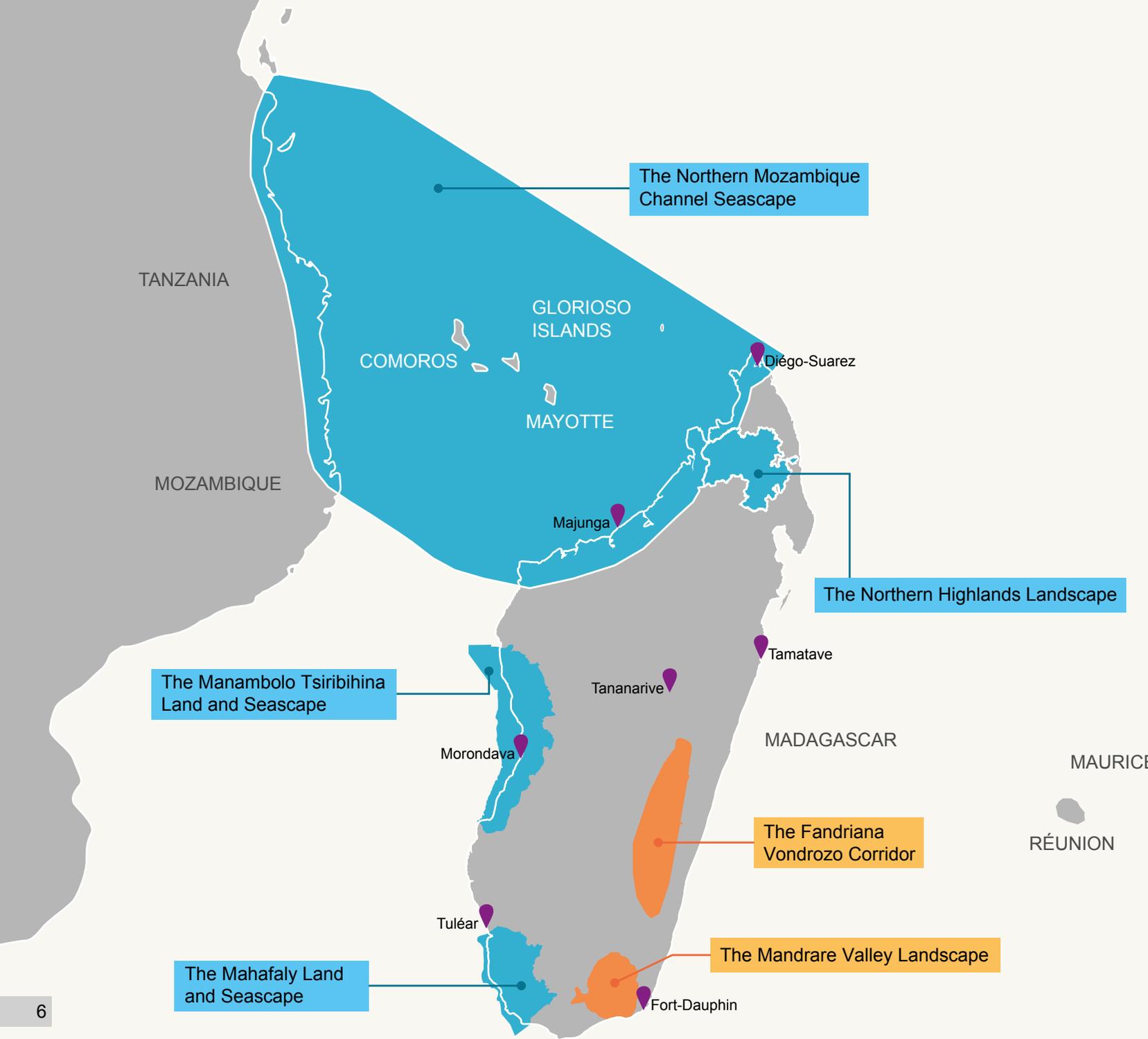
Nanie Ratsifandrihamanana
Director WWF Madagascar

INTERVENTION LANDSCAPES



WWF Landscapes

-  Priority landscape
-  Secondary landscape
-  City



PRIORITY LANDSCAPES

(PRIORITY ACTION AREAS FOR WWF ACTIVITIES IN 2016)

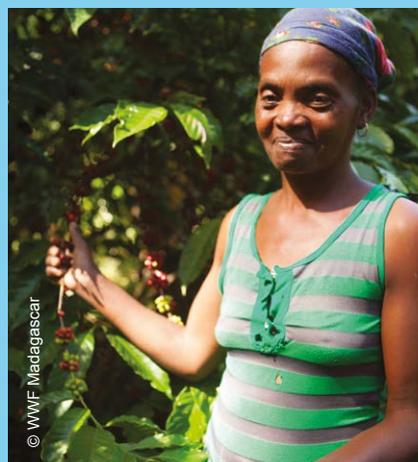
The Mahafaly Land and Seascape



The Mahafaly land and seascape hosts the largest intact block of spiny forest and the third largest coral reef in the world. This spiny forest contains the highest percentage of endemic plant species in the country, with 48% of the genera and 95% of the species occurring nowhere else on earth. The coastal and marine ecosystem comprises rich coral reefs with diverse habitat with an estimated 6,000 reef-associated species.

The karst limestone of the Mahafaly Plateau and its labyrinth of underground water tunnels are home to endemic archaic blind fish species.

The Northern Highlands Landscape



Remote and rugged, the Northern Highlands are one of the last stretches of Madagascar's primary forest and are a biodiversity hotspot. The Northern Highlands Landscape consists of several types of ecosystems dominated by a vast expanse of forests. More than 2,281 species have so far been identified, of which 538 are endemic.

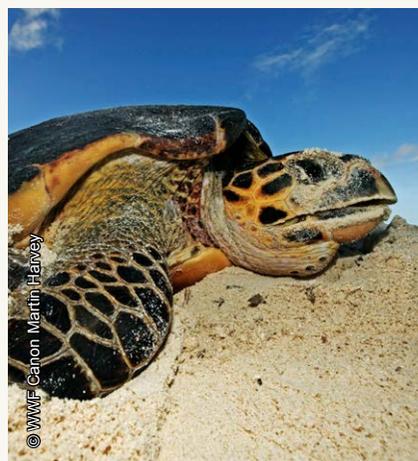
It is also a critical wildlife corridor and the headwaters of rivers flowing to both the western and eastern sides of Madagascar.

The Manambolo Tsiribihina Land and Seascape



The Manambolo Tsiribihina Land and Seascape includes one of the largest and most intact stretches of mangroves in Madagascar. The mangroves along the coast of this landscape provide the region with important ecological services; serving as a buffer against cyclones and rising sea levels and, more importantly, as a breeding ground for crabs, fish and shrimp. Mangroves also play a particularly important role in the fight against climate change because they capture carbon more effectively than most other forest types.

The Northern Mozambique Channel Seascape



The Northern Mozambique Channel (NMC) is one of the world's outstanding marine and terrestrial biodiversity areas and a biological reservoir for all the coastal areas of east Africa. It is also an area of strong economic potential for East Africa, through tourism and industrial and artisanal fisheries development.

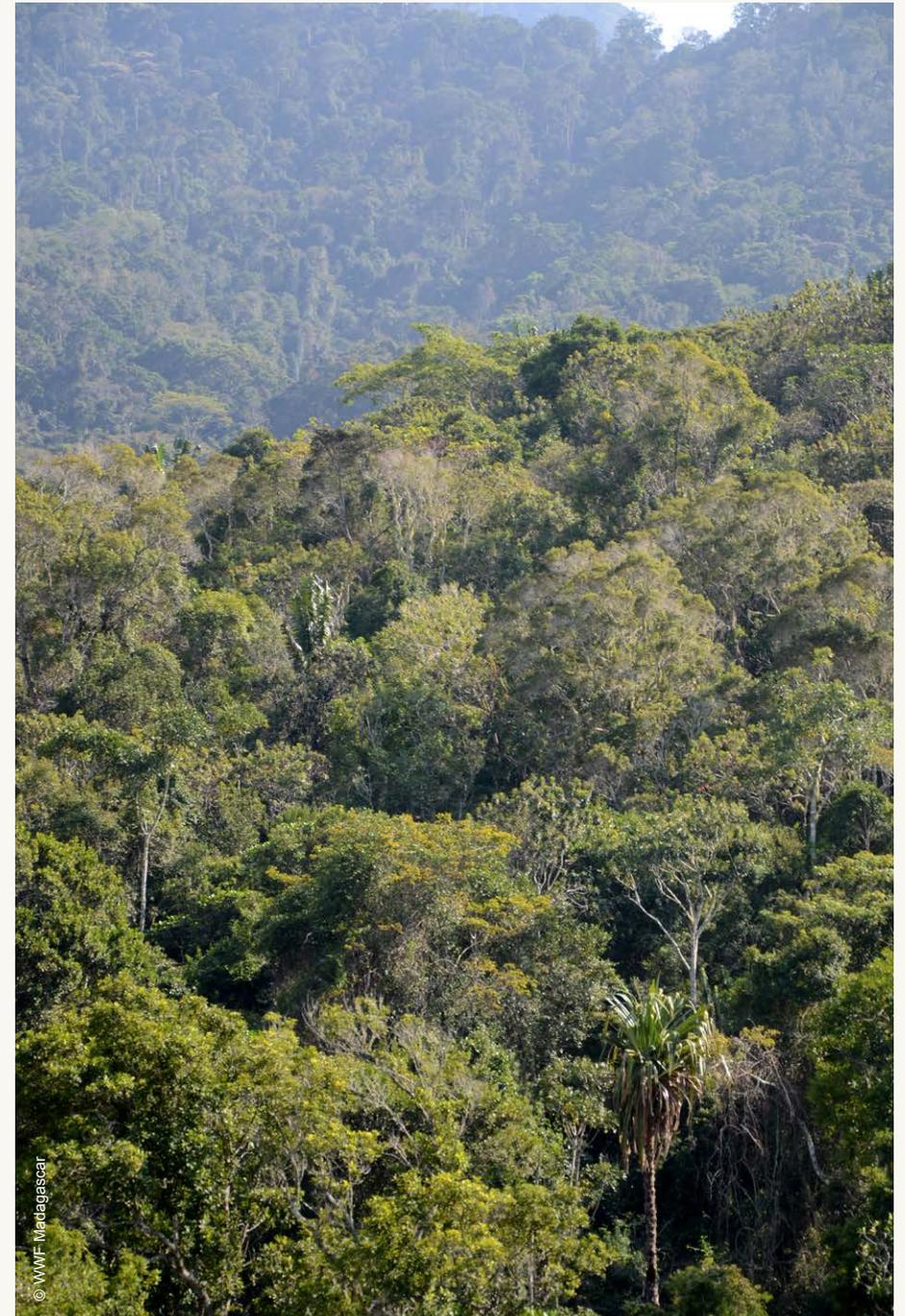
SECONDARY LANDSCAPES

(SECONDARY ACTION AREAS FOR WWF ACTIVITIES IN 2016)

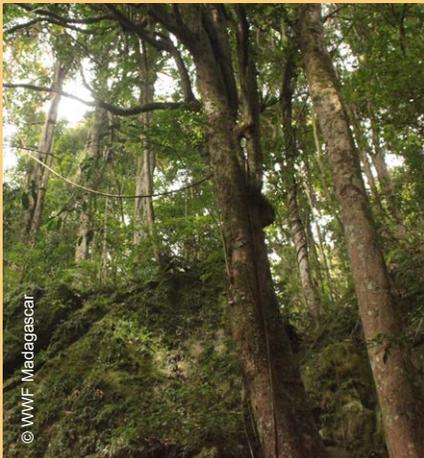
The Mandrare Valley Landscape



Lying in the far South of the country, the Mandrare Valley has a unique environment encompassing humid forests, transitional humid-to-dry forest zones, gallery forest and spiny bushes. These natural habitats contain many unique, highly-specialized species that are uniquely adapted to these specific environments. 90% of local plant species are endemic with a number of them highly endangered. The spiny thickets are home to the iconic Lemur catta, or ring-tailed lemur, one of the emblems of Madagascar.



The Fandriana Vondrozo Corridor



The Fandriana Vondrozo Corridor, which extends to the south of the eastern part of Madagascar, includes low altitude, medium altitude and high mountain humid forests. The forest corridor contains the last portions of the country's primary forests. It also has a large number of endemic and emblematic plants and animals, including rosewood and pallsander and the Hapalemur lemur species, which exclusively feeds on bamboo.





SOME MAJOR ACHIEVEMENTS AT NATIONAL LEVEL

Education about Sustainable Development for Malagasy Youth

In October 2016, education about sustainable development was successfully integrated into the Malagasy school curriculum as part of a reform of the education system. This is the result of advocacy carried out by WWF and its partners since 2012, using positive results from experiments, methods and field activities in 10 model schools as support for the sustainable development approach.

WWF's advocacy has led to the creation of a standing committee on education about sustainable development within the Ministry of Education, which brings together all the directorates and aims to propose key guidelines to strengthen the capacity of key decision-makers and to monitor the implementation of recommendations.

Integrating education for sustainable development into the Malagasy school curriculum will prepare and empower the new generation of young people to become proactive players, engaged in sustainable consumption and production while improving their living conditions and participating in conservation and development activities at all levels.

900 students of the School Notre Dame de Nazareth in Toliara, for example, produce, promote and use briquettes as an alternative to charcoal, an energy source which is one of the main causes of deforestation in the Atsimo-Andrefana region and in Madagascar. This simple activity organized at the school level has had multiple effects: commitment and contribution to reducing the use of charcoal in families (the use of briquettes reduces by 2/3 the charcoal needed for cooking and helps save the forest); as a green economic activity, it prepares and educates students to have ecological entrepreneurial behaviors and culture.

Donor: Swedish International Development Cooperation Agency (SIDA).

A WWF-CARE alliance for Madagascar

Madagascar is characterized by its status as a hotspot for global biodiversity which is undergoing a rapid degradation of its natural capital. Increasing poverty and low levels of human development are exacerbated by high vulnerability to natural disasters and climate change.

In the face of these interdependent challenges, CARE and WWF believe that they can further contribute to sustainable change in Madagascar by joining forces as part of a long-term and realistic alliance, an alliance that will also seek to work with civil society, the private sector and state actors engaged in the sustainable development of the country for the benefit of all its people.

The goal of the Alliance is, «By 2026, the CARE-WWF alliance will have made a significant contribution both to improving food security and to diversifying the livelihoods of vulnerable households, particularly women and young people, in target rural areas and improved health of the ecosystems and species.»

Five regions in two major agro-ecological zones, one in the northeast and one in the south/south-west of the country, have been identified as priorities for joint interventions adapted to each region. The following approaches have been identified by the CARE-WWF Alliance as having the greatest potential for impact at scale:

- Common policy and advocacy
- Strengthening civil society
- Focus on women and youth
- Private Sector Involvement
- Improved intervention models for scaling
- Impact measurement (on population and nature)



CARE and WWF teams in Madagascar have emerged from this vision formulation exercise on the Alliance with heightened ambitions, based on common objectives and principles and a better understanding of what each partner can contribute to the Alliance. By working together and by systematically using their complementary strengths, both organizations can enhance their impact, increase sustainability, and achieve greater scaling.

Donors: Sall Family Foundation and CARE.

Improved management: construction of infrastructures in national parks

Through a partnership between Madagascar National Parks and WWF, welcome and interpretation centers have been built in the national parks of Tsimanampetsotse and Kirindy Mite, as well as in the Special Reserve of Andranomena, so as to improve the efficiency of their management and the welcoming of visitors. This collaboration has helped to double the number of infrastructures available to Madagascar National Parks. This support is all the more important for WWF as these protected areas form the core of its priority landscapes.

The Tsimanampetsotse park was equipped with an administrative office, a warehouse/garage, twenty-two park staff quarters, and surveillance posts for rangers. For the Andranomena Reserve, quarters for staff and forest rangers and other support buildings are now available. The parks and the reserve now have the appropriate infrastructure for efficient management and a more optimal welcoming of visitors with buildings complying with international cyclone-resistant standards.

Donor: German Cooperation via KfW



Madagascar is committed to the development of a program for sustainable access to electricity

The Ministry of Energy is committed to the development of a national program that will enable isolated and vulnerable rural communities to have access to solar electricity services following the initiative and support of WWF and the Barefoot College.



Since 2012, WWF has been helping women from rural communities dependent on natural resources, most of whom are illiterate, to develop solar power services in their villages. The program started with seven women who traveled to the training center of the Barefoot College in India for a 6-month technical training in solar technology. Eight other Malagasy women from two rural communities in the north-east and west of the country followed, and a third group is already preparing to follow the training to start in March 2017.

These women will be key players in the future Barefoot College Training Center to be set up in Madagascar as planned in the national program. Some of these women will be future trainers. The national program aims to build a network of 744 «solar engineers» by 2030 and equip 630,000 households with solar systems.

The national strategy for the sustainable management of the wood energy value chain is defined

As part of the new energy policy adopted by Madagascar in November 2015, a national strategy for the supply of wood energy was developed by the Ministry in charge of energy, with technical support from WWF and other stakeholders.

The experience of WWF over the past decade on this issue and the lessons learned have greatly contributed to enriching discussions on this strategy. The large-scale use of energy-efficient cooking equipment, reforestation for energy sources, the use of better techniques for charcoal production and regulation of the wood energy sector are some of the key elements of this strategy.

Under the national strategy for wood energy sustainable supply, a national technical committee, in which WWF is a stakeholder, is developing the national bioenergy law. The purpose of this law is to regulate the activity of the biomass energy sector (wood energy, biofuels, biogas ...) in order to promote sustainable socio-economic development.



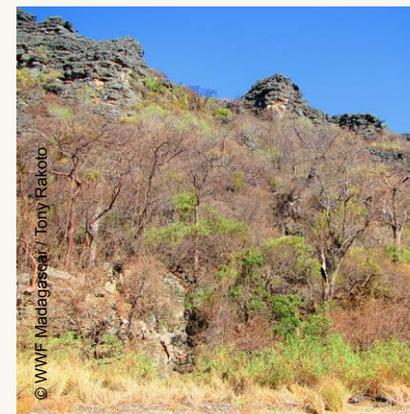
Establishing resilient protected areas

Over the past five years, WWF Madagascar has been involved in the promotion of resilient protected areas (PAs) for adaptation to climate change and has developed a specific

methodology for adaptation to climate change for Protected Areas (CAMPAs) as part of a pilot program implemented jointly with WWF Colombia, WWF Philippines and key partners. This includes methodologies for assessing vulnerability to climate change and identifying adaptation options that help to integrate climate change into PA management tools.

In 2016, WWF trained 33 people including PA managers from fifteen protected areas in the priority land and seascapes of Madagascar and the Comoros on the use of this methodology. At the end of this training, key recommendations were developed to simplify and better implement its local application starting in 2017. In addition, discussions with the Malagasy Ministry of Environment, Ecology and Forests, which manages the Madagascar Protected Area System, has resulted in the promotion of CAMPAs as a PA management tool. The goal is that by 2020, all protected areas in the priority landscapes of WWF should improve their resilience to ensure the long-term management of biodiversity in the context of a changing climate.

Donors: Norwegian Agency for Development Cooperation (NORAD) and European Union.



Strengthen the capacity of civil society for better governance and combat the illegal exploitation of natural resources

Strengthening the capacities of civil society is essential to achieving better management of natural resources. To this end, 109 Malagasy civil society organizations (CSOs) have been mobilized and supported in their advocacy work.

WWF's capacity-building programs have strengthened and empowered leaders and agents of change.

In addition, WWF has catalyzed in 2016 the creation of the National Advocacy Coalition of Environmental CSOs (CNPE), with its 38 members from different regions throughout Madagascar.

The CNPE and other CSOs have acquired essential skills, including advocacy and communication skills, investigation skills, and a better knowledge of laws and regulations related to key natural resources.

They are now fully operational and are actively involved in advocacy campaigns to combat natural resource abuses. Their actions include information collection and analysis, using the media, petitioning the government and filing formal complaints.

Four advocacy campaigns, five public forums and four workshops with policy makers were conducted by these coalitions of CSOs to address pressing political and legal issues in hotspot areas affected by natural resource trafficking or forest clearing (SAVA, Analanjirofo, Antsinanana, DIANA and Sofia).

Through this process, 13 public institutions have been involved in taking measures to combat the trafficking of natural resources. It is important to note that this work was carried out in collaboration with two independent national anti-corruption entities (BIANCO and SAMIFIN).

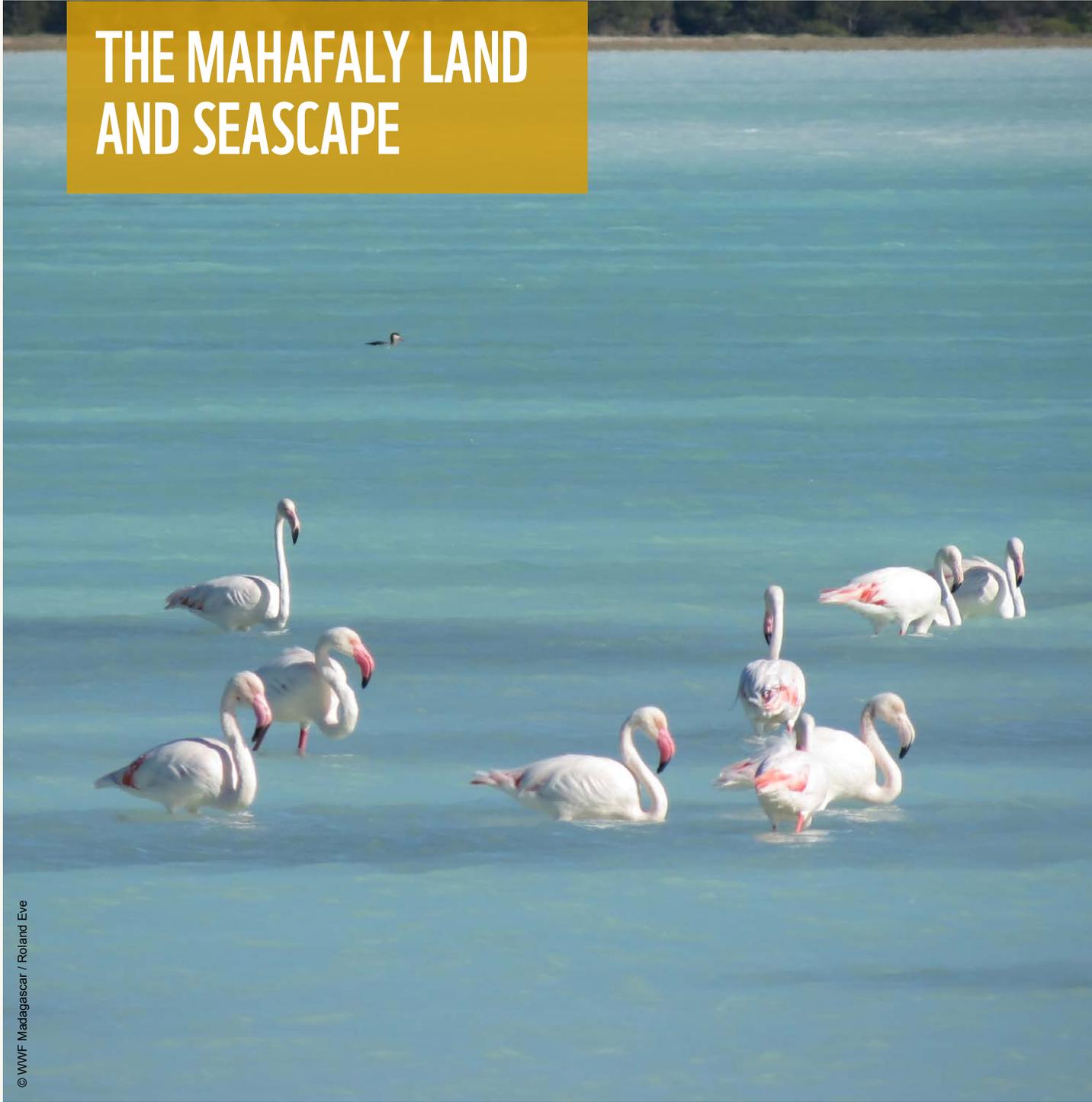
Environmental CSOs have evolved into platforms that are listened to and respected by local authorities and the general public. They are now recognized by technical partners and policy makers as important Malagasy voices who are fully involved in the fight against illegal practices.

For example, some organizations such as the ROHY movement, the National Advocacy Coalition of Environmental CSOs (CNPE), the CSO of the Extractive Industries OSCIE and the CSO for the preservation of natural resources or the Alliance Voahary Gasy have significantly contributed to advancing important political and legal decisions, such as the revision of the mining code and the decision to set up a special court of justice for precious wood cases.

Donors: USAID, Swedish International Development Cooperation Agency (SIDA) and Norwegian Agency for Development Cooperation (NORAD).



THE MAHAFALY LAND AND SEASCAPE



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Developing a sustainable and job-creating octopus value chain in the southwest of Madagascar

In 2016, the Mahafaly coastal villages confirmed their importance in the export of octopus in the Atsimo-Andrefana Region. The eco-certification of the octopus fishery is a strategy supported by WWF to ensure the sustainable management of this resource and increase the income of fishermen. Six villages in the Mahafaly landscape (Beheloke, Besambay, Ambola, Ampasimahanoro, Andomotse and Tariboly) have set up temporary reserves for octopuses in 2016. This consisted in closing octopus fishing for two months to promote the growth of young octopuses. For example, in 2016 when the 280.1 ha reserves were opened (for 4 days), a fishing record of 4,152.4 kilograms of octopus (on the first day alone) was recorded in these six villages, where the biggest octopus ever fished in the region was caught in 2016: 7.4 kg.

Still as part of the effort to support community fisheries management, WWF is promoting offshore fishing. Five villages (Maromena, Befasy, Beheloke, Itampolo and Ambohibola), together totaling 150 households, were equipped with offshore fishing gear, such as long lines and hand lines, and have received adequate training on these tools. In addition to improving daily income, offshore fishing by communities reduces overfishing in the areas around the coral reefs. In 2016, by targeting larger catches outside the lagoons, the daily catch of fishermen has increased by up to 15 kg per fisherman/day while it was 5 kg per fisherman/day before.

Donor: Swedish Postcode Funds.



Income-generating seaweed farming

Actions to promote and develop red algae farming have been initiated in the Mahafaly plateau since 2013 to reduce pressures on fisheries and forest resources. This alternative activity to fishing both reduces the pressure on marine natural resources and contributes an additional income for the village communities.

In 2016, six villages (Beheloke, Ampasinabo, Befasy, Lanirano, Ankilimionga and Antsakoia) were jointly supported by WWF and the private company COPEFRITO in order to significantly and sustainably increase the production of dry seaweed. The villages of Ampasinabo, Ankilimionga, Lanirano and Antsakoia have recently created their new seaweed fields. In the Mahafaly seascape, 92 seaweed farmers produced 23 tons of algae. In 2016, farmers earned 75,000 Ariary / 25.00 USD per month (an increase of 13.69% compared to their monthly income). Increased incomes have helped households to send their children to school, replace the roofs of their homes or buy furniture and household equipment. This activity is constantly developing in the Mahafaly coastal areas as 42 new farmers, 32% of them women, have set up new seaweed fields at a new site in Ankilimionga.

Donor: Norwegian Agency for Development Cooperation (NORAD).

Supporting the sustainable management of the wood energy value chain in the Mahafaly landscape



Since 2007, WWF has been working for the sustainable management of wood energy in the south-west because the production and consumption of wood energy is a major pressure on spiny forests.

Building on its achievements since then, regarding wood energy plantation activities with communities structured as reforestation associations--such as support to the authorities for the regulation of the value chain, promotion of the use of energy-saving cooking equipment in Toliara and its surrounding areas--WWF has entered a sustainability and scaling up phase for these achievements.

Mobilization and improved coordination of the forestry administration for an efficient and sustainable monitoring and follow-up of the wood energy value chain, setting up relevant

mechanisms between the private sector, communities and the forestry administration for the launch of reforestation effort for wood energy, supporting small businesses for the professional expansion of their production and sale activities of wood energy-saving cooking equipment, and finally strengthening the capacity of local community structures for sustainable exploitation of wood energy resources, are part of the sustainability and scaling up mechanisms initiated.

Thus, in 2016, four WWF-supported small artisanal enterprises producing low energy cooking equipment have reached an annual production capacity of 3,200 energy-efficient cooking vessels, compared to a capacity of 1,200 units per year in previous years.

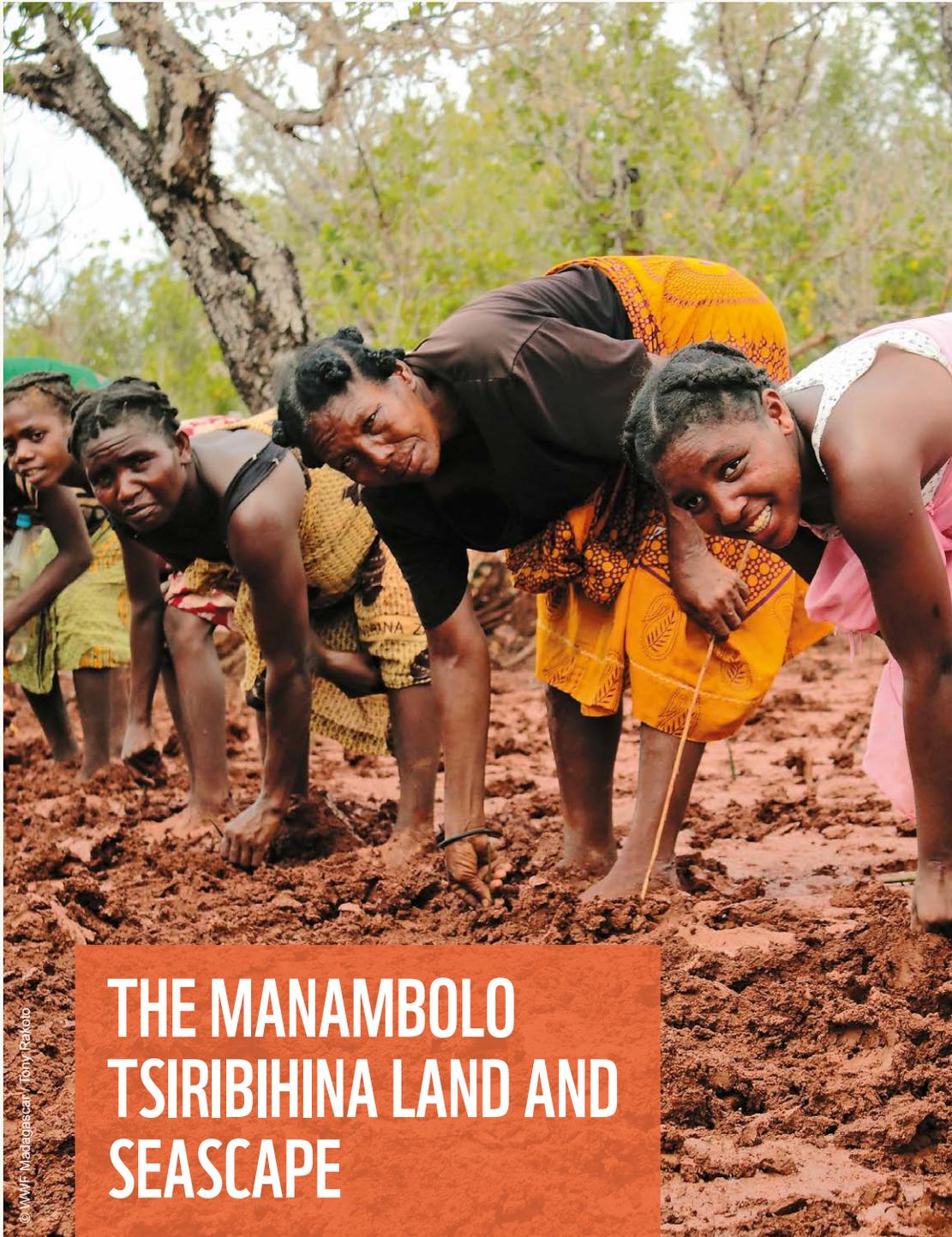
Leader Civil society organizations in the Atsimo-Andrefana region

With the support of WWF, the Platform of Civil Society Organizations in the Atsimo Andrefana coordinated a reforestation campaign for 10,000 trees in the Atsimo-Andrefana region with financial contribution from the private sector, including hotel businesses.

This involvement of the private sector is a first in the region and prospects for a long-term involvement of this sector is being considered thanks to a reforestation plan for the region for years to come.

Donor: NORAD.





THE MANAMBOLO TSIRIBIHINA LAND AND SEASCAPE

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A new UNESCO Biosphere Reserve

The Belo-sur-Mer-Kirindy-Mite site was registered with the UNESCO World Network of Biosphere Reserves in March 2016. Biosphere Reserves are areas including land, marine and coastal ecosystems. Each reserve promotes solutions that combine biodiversity conservation and sustainable use.

The Belo-Sur-Mer-Kirindy-Mite Biosphere Reserve consists of a central area: the Kirindy Mite National Park (156,350 ha) and a buffer zone of 88,000 ha. It also includes a transition area of 87,000 ha of which 190,400 ha are marine areas.

Since the Kirindy Mite National Park was established, several initiatives and projects have been happening: community ecotourism, sea cucumber nursery projects, seaweed farming ... Concentrated in the buffer zone of the reserve, these are primarily practices on sustainable resource use which at the same time strengthen the conservation of the Kirindy Mite national park.

These initiatives are carried out in collaboration with several entities, including Madagascar National Parks, which is the reserve manager with a mandate from the Malagasy state, and its technical and financial partners, including WWF.

Local communities, through the national park's co-management system, are already directly involved in patrol, ecological monitoring and maintenance activities (firewalls, access pathways, etc.) in the national park. The development and management plan of Kirindy Mite incorporates the objectives of the Regional Development Plan of the Menabe Region.

Donor: German Cooperation via KfW.



© WWF Madagascar

Supporting the sustainable management of mangroves by the communities of Manambolo Tsiribihina

The management of mangroves by local communities is one of the most effective ways to ensure sustainable protection of these ecosystems and the important resources they contain. With the support of WWF, local communities are managing seven sites covering a total of 31,834 ha of mangroves in the Menabe and Melaky regions.

In order to fully fulfill their role as natural resource managers, these communities apply the 'dina,' a set of community regulations. The local community of Ambakivao was able to charge the 'vonodina' (fine system in case of a violation of the 'dina') to illegal wood cutters in September. As for the local community in Antanandahy, they drove away charcoal producers from the mangrove forests in its territory through the application of the 'dina.'

Furthermore, in the Melaky Region, 50 households of fishermen in the villages of Masoarivo, Soahany and Manombo were trained on new crab fishing and processing techniques, as well as receiving financial support to make crab scales, which help adjust the catches to the minimum weight authorized for the crabs caught.

Donors: French Development Agency, Helmsley foundation Trust and the Swedish International Development Cooperation Agency (SIDA).

Mangrove restoration, a civic responsibility led by young people and communities

Between October and November 2016, nearly 80,000 propagules were planted at 14 restoration sites covering a total area of 45.4 ha in the town of Morondava and the district of Belo Sur Tsiribihina. Conducted by the Mahery Youth Consortium, it is the largest mangrove restoration project led by young people in the Menage Region.

The Mahery Youth Consortium is the union of seven youth associations in the region working together to protect the environment. 'We have chosen to restore mangroves to slow the degradation of wetlands in the Menabe. We want to support the development of our Region with mangroves,' says Tivainrainy Aristide, Conservation manager of the Mahery Youth Consortium.

Mangroves play an essential role in the protection of coastal areas: they slow down erosion and protect coastal areas during storms. Coastal ecosystems associated with intact mangroves have greater resilience to climate change. Mangroves also serve as habitat, breeding and feeding areas for many species, such as the famous mangrove crabs on which many families depend.

Donors: French Development Agency, Helmsley Foundation Trust, Swedish International Development Cooperation Agency (SIDA), Norwegian Agency for Development Cooperation (NORAD) and Mc Arthur Foundation.



Mangrove honey, a source of income and a means to preserving resources

WWF Madagascar works to strengthen the resilience of the people living in the coastal areas of the Manambolo Tsiribihina landscape to climate change. Some challenges include the increase in sea temperature and the intensity of tropical cyclones, which cause sedimentation in mangroves and erode the coasts.

Vulnerability analyses were carried out in the landscape in 2011 to identify the most effective adaptation measures to reduce the vulnerability of communities in the coastal areas. Among other things, the frequency of southerly winds prevents fishermen from going out at sea during certain periods of the year. This is one of the main factors that limits the income of fishermen.

Among the adaptation measures identified at the landscape, several alternative income-generating activities, including beekeeping, have been supported by WWF to support the conservation of natural resources and minimize the vulnerability of populations in WWF's areas of intervention.

Working with the association Firaissantsoan'ny TAntsaha MENabe (FITAME), WWF has supported some 50 beekeepers in ten villages around the Tsiribihina River Delta and distributed more than 110 hives. With an average price of 10,000 ariary per liter, during the last honey extraction session in the ten hive implantation sites, 500 liters of honey were collected.

Donors: Swedish International Development Cooperation Agency (SIDA), Norwegian Agency for Development Cooperation (NORAD) and the Mac Arthur Foundation.



Zero deforestation, involvement of all actors in the Menabe region

WWF joined hand with the civil society organizations in the Menabe, under the coordination of the FIVE coalition, to work with the DREF to develop an action plan to combat uncontrolled deforestation in the region.

This plan seeks to establish a better organization of the wood energy value chain – namely through a stronger management of charcoal producers and the commercial flow of charcoal – and to improve the transparency of forest governance. The plan also seeks to address the financial autonomy of the regional reforestation policy.

The plan was signed and validated by the Region, the DREEF, the Public Prosecutor and the civil society of the Menabe.

Donors: Helmsley Foundation Trust and the Swedish International Development Cooperation Agency (SIDA).

Communities and civil society organizations; working together for the sustainable conservation of natural resources



The FIVOI federation, which brings together about 20 local communities in villages around Morondava and Belo Sur Tsiribihina, in the southwest of Madagascar, has already been in operation since its launch in October and has been collaborating with WWF and the NGO CODE Menabe.

FIVOI is a network of communities managing mangroves, wetlands and Menabe dry forests and represents the voice of communities in the various decision-making meetings on the governance of natural resources in the region. The administrative formalization of FIVOI with the authorities has been effective since October 2016.

In addition, twenty-one civil society organizations in Manambolo Tsiribihina, which are also supported by WWF, have developed a joint action plan in 2016. The objective of this plan is to improve their collaboration to benefit the conservation of forests and ecosystems in the Melaky and Menabe regions.

These civil society organizations are working in different sectors (tourism, journalism and media, youth capacity building, conservation and management of natural resources, women's empowerment, social actions in rural areas, etc.).

Donor: Swedish International Development Cooperation Agency (SIDA).

Women, pillars of a successful conservation

In 2016, WWF supported five women's associations in the delta of the Tsiribihina on duck farming in the villages of Mavoatoka and Tsimandrafoza, and on embroidery and handicrafts in the villages of Ankirijivato, Antsakoamaliny and Soarano, with the aim of improving the lives and the well being of women. The women from these associations have worked together to restore more than 20 ha of mangrove forests.



Donor: Swedish International Development Cooperation Agency (SIDA).

Mrs. Blandine, president of the association 'Ampela Mihetsiky,' Women in Action, in the village of Tsimandrafoza: 'Our association is mainly focusing on duck farming. We have orchards and vegetable gardens. We consume some produce, like tomatoes, and sell others, like greens. We made our farmyards and gardens with the blessing of the president of the "Fokontany."

'We, the women of Tsimandrafoza, we do not like to be idle. We set up this association to come up with things that we can do together. Together, we are looking for solutions to our problems, and we have found ways to provide for our families. We currently have 65 laying female ducks, and we sell the eggs for 400 Ariary each in Belo Sur Tsiribihina. It's uplifting to have something to do. We feel that we have other purposes other than taking care of children. Each of us has more will to do things.'



Crab value chain, a golden opportunity for the fishing communities in coastal areas

The sustainability of traditional mangrove crab exploitation will be achieved through sustainable management of its habitat by communities and by reducing post-harvest losses. In 2016, 35,000 ha of mangroves were managed by 12 groups of local communities (COBA) supported by WWF Madagascar.



Communities have doubled their incomes thanks to the opening of the crab season as the price per kilo of crab rose from 1,200 Ariary in 2014 to 2,500 Ariary in 2016. This has been possible thanks to the valuation of the catches by using the «belaroa» crab scale, popularized by many stakeholders of the SMARTFISH program and WWF Madagascar.

Currently, this sector consists of a group of communities involved in traditional crab fishing in the mangroves, the Crab Exporters Group, which brings together 14 export companies and the Malagasy government through the Ministry of Marine Resources and Fisheries. From the delivery of license to aquaculture farms for crabs to setting the minimum size of 11 cm for the catches, the crab value chain is now regulated through six ministerial ordinances. This structuring is very important for WWF Madagascar, which supports the promotion of this production model that integrates communities. It ensures the sustainability of the value chain and establishes sustainable community management of mangroves.

Donors: French Development Agency, Helmsley Foundation Trust and Swedish International Development Cooperation Agency (SIDA).



Sustainable fisheries, benefiting humans and nature

Seeking to make fishing more profitable for fishing communities, while ensuring the sustainability of fishing in the Melaky and Menabe regions, WWF Madagascar has provided support for the professionalization of fishermen and has supported their structuring in cooperatives in collaboration with the consortium LALANDA, a coalition of NGOs working on the structuring of the fishery sector in these regions.

In 2016, three cooperatives were established in the Menabe region with more than 150 members, and three more will be created in the Melaky region in the first quarter of 2017 with 120 fishermen members.

Members of the cooperatives benefit from education on the proper use of the most modern fishing tools adapted to the local context, such as techniques for the use of long lines and hand lines, or fish processing and conservation techniques (salting, smoking and drying). Cooperatives are contributing to better management of fishing at the local

level, assisting the administration in surveying fishermen and issuing fishermen's cards while facilitating access to markets for fishery products.

To enhance the effectiveness of these dynamics, the involvement of private operators is key. In this sense, businesses such as COPEFRITO already offer regular market opportunities to fishermen, to communities managing reserves and to local economic groups supported by organizations such as WWF. At the same time, WWF is developing pilot activities to optimize the crab value chain by establishing fattening ponds. These ponds will reduce post-harvest losses and will enhance the commercial value of a part of the region's production.

Donors: French Development Agency, Helmsley Foundation Trust and Swedish International Development Cooperation Agency (SIDA).

THE NORTHERN HIGHLANDS LANDSCAPE





The Management of the COMATSA forest corridor is considered to be effective

With the support of WWF in the Northern Highlands since 2008, the Marojejy-Anjanaharibe sud-Tsaratana forest corridor (COMATSA), with a total area of 318,087 ha, officially became a protected area in 2015.

In 2016, the management of this forest corridor received a high score of 68/100 on the METT tool, with the goal set at 60/100. The METT is the most widely used protected area efficiency management index (IEG) in the world.

This demonstrates the result of the good management of this forest corridor, which became part of the Ambohimirahavy Marivorahona Protected Areas Complex (CAPAM), with an area of 537,465 ha.

COMATSA is part of the protected areas that form one of the largest rainforest blocks in Madagascar and provides water supply to the Sava and Sofia regions, as well as a part of the Diana region in the north of the country. Much crop farming depends on this large natural water reservoir, making the Northern Highlands a true lever for the regional economy. Indeed, these forests are not only valuable in ecological terms, but also because of their socio-economic values.

Donors: Canton of Geneva, Canton of Zurich, Symphasis Foundation, GEF and UNDP.



50% of the COMATSA protected area is managed by village communities

WWF continues to focus its efforts on the transfer of natural resources management in the COMATSA protected area to civil society by setting up management structures at regional (steering and monitoring committee) and the local level (Association of local communities managing the protected area).

The transfer of natural resource management empowers villagers in land and forest resources governance. This transfer of management takes the form of a contract between the State and the village communities which regulate the enjoyment of the rights to exploit forest products for food, cosmetic, medicinal or cultural purposes.

Consequently, by the end of 2016, approximately 50% (157,932 ha) of the COMATSA protected area was managed by communities.

In addition, to reduce pressure on forest resources, WWF has promoted alternative income-generating activities such as beekeeping, fish farming, chicken farming, and vanilla and rice farming.

Donors: AFD / FFEM, Air France, GEF and UNDP and Conservation International.

Forest patrol agents have adopted the LEM/SMART tool for better monitoring and identification of offenses



In 2016, 245 forest patrol agents received training on the Law Enforcement Monitoring system, which uses Spatial Monitoring and Reporting Tool (LEM/SMART). This software helps monitor pressures on natural resources and identify and process offenses.

This system was adopted by 56 village communities managing the COMATSA protected area and the tool became the geo-referenced patrol standard.

Following the 220 community patrols and three joint patrols with the forestry service and gendarmerie, 348 offenses were observed. The most important offenses are wood harvesting, forest clearing and hunting. 77 offenders have been brought to justice, or fined on the basis of local conventions or 'dina.'

As a result, there has been a significant improvement in the management of natural resources, both with the local community and the local forest administration.

Donors: USAID.

The Sava region consolidates the application of the 'dina'

The 'dina,' a traditional rule approved by the court, is now applied in the SAVA region, in the northeastern part of the country, to avoid the acquittal of offenders responsible for illegal exploitation of natural resources among other offenses.

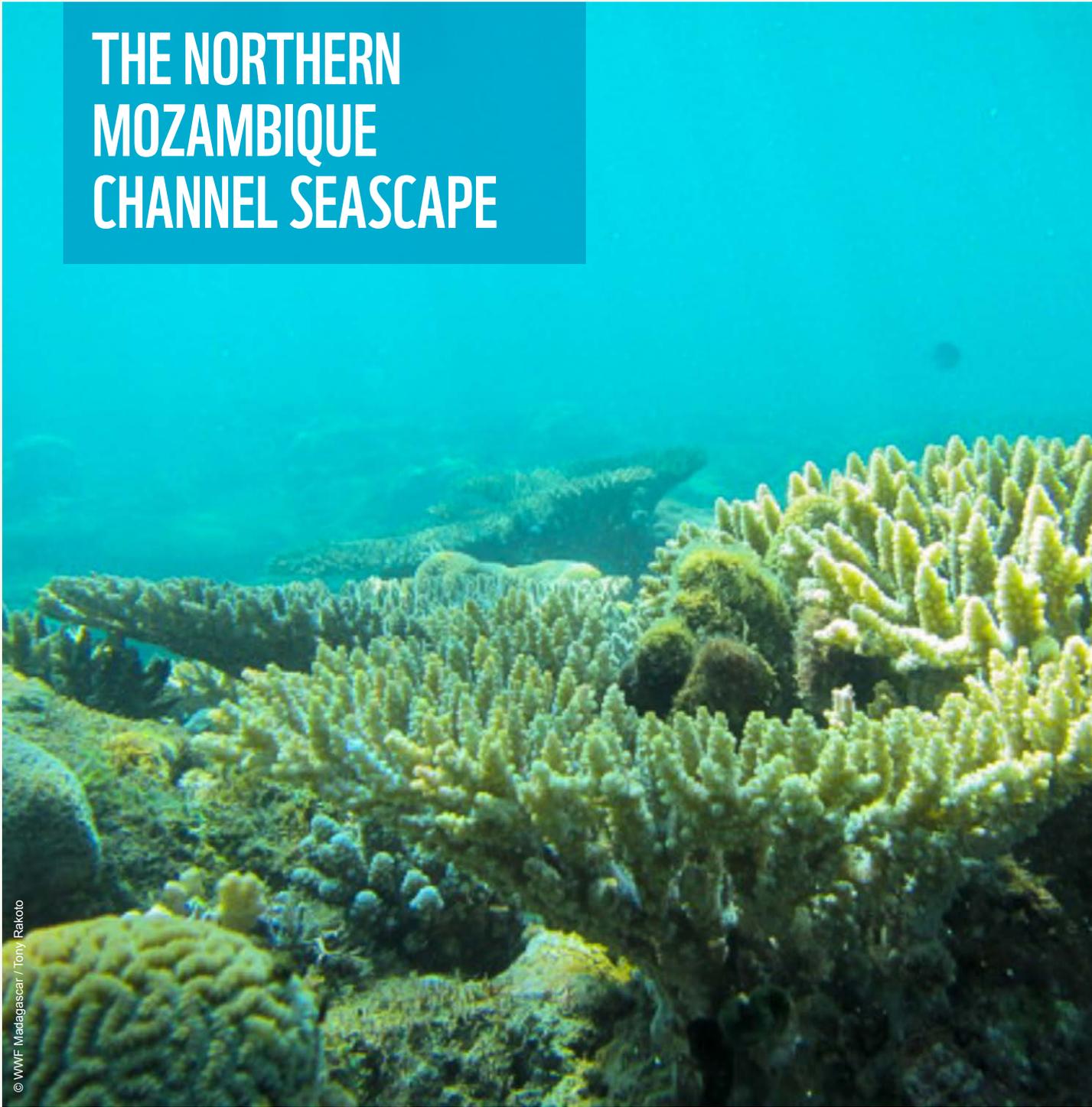
A joint initiative which brought together WWF, various NGOs and civil society organizations, local communities, law enforcement agencies, the authorities and the Antalaha court helped to initiate an open discussion on the limitations of this customary regulation. The meeting made it possible to clarify the roles of each entity and resulted in its approval by the court and an improvement in its application.

The approval of 'dinas' helped to strengthen the interventions of communities that manage natural resources. A dina enforcement committee and a monitoring committee were created.

The initiative has already yielded some results in 2016: a person has been put in prison, having committed a forest clearing offense, violating this court-approved rule. This is a first because the perpetrators of offenses are usually released because of a lack of admissible evidence.



THE NORTHERN MOZAMBIQUE CHANNEL SEASCAPE



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The actors of the marine conservation in the Western Indian Ocean are working together for a responsible oil and gas sector

In the Western Indian Ocean, WWF and its partners, including the consortium of Western Indian Ocean NGOs, have taken the commitment so that the accountability of the oil and gas sector becomes a priority in marine conservation. For this purpose, a study was commissioned in 2015 to determine the status of the development of the oil sector in this area. A working group was created and entrusted with the drafting of a road map for the implementation of the recommendations of this study and to coordinate the actions to be taken in order to make this sensitive sector safe.



Among the priority steps, civil society organizations have benefitted from capacity building on two key topics: understanding of methods for the development and exploitation of oil fields, and good environmental standards and practices related to the oil sector. 12 representatives of civil society from countries in the Northern Mozambique Channel were trained in Zanzibar in November 2016 on the topics of oil and gas, namely on the legislative frameworks governing the sector, the main items relating to contracting with oil companies and the social and environmental impact of mining activities.

The partnership for integrated marine management in the Northern Mozambique Channel is now in place and functioning, particularly with regard to joint research for the sustainable management of this area.

Donors: Swedish International Development Cooperation Agency (SIDA), Belvedere and Postkode.

Aqualma, the first African ASC certified shrimp farm

Through its Aqualma aquaculture farm in Mahajamba, Unima is the first African shrimp farm to obtain the ASC/Aquaculture Stewardship Council certification. This certification that the company was awarded in July 2016, is a recognition of a production method that meets environmental and social standards.

Supported by WWF for the development and implementation of good social and environmental practices since 2007, Unima has invested efforts in community development, reforestation and good management of natural resources in mangrove areas, sewage treatment and good waste management.

This certification is of great importance for the Malagasy export sector. For instance, 49% of the fishery products exported from Madagascar is shrimp, primarily from the production of Aqualma.

Europe, with an annual import of 400,000 tons of farmed shrimp, is the main destination for Malagasy exports. This new ASC certification, which is both a guarantee of good industrial practice and a guarantee of quality, will ensure that Malagasy shrimp occupies a prominent position in European consumption.

Donor: Swedish International Development Cooperation Agency (SIDA).



The Comoros and Madagascar, exchanges to improve the management of parks and marine sites

Managers of the Mohéli marine protected area in the Comoros met with their Malagasy counterparts from the Madagascar National Park (MNP), Conservation International (CI) and communities managing marine sites (LMMA) during an exchange visit organized by WWF. During the meeting, which was held in the northwestern part of Madagascar, the two teams visited community-managed marine sites in the coastal cities of Ambilobe and Diego Suarez and in Nosy Hara Island. This experience helped them to discover local initiatives that contribute to the autonomy of the villagers and the preservation of local ecosystems: restoration and reforestation of mangroves, small livestock farms, fishing practices and community tourism.

The two teams learned about the involvement of villagers in the local management of natural resources and analyzed conservation and development approaches for marine areas. As such, the purpose of the visits was to strengthen the conservation of these marine areas through an exchange program between managers, in a spirit of networking and sharing of good practices.

Donor: Swedish International Development Cooperation Agency (SIDA).



The first four fisheries development plans are signed by the communities of Ambaro Bay

Four villages in the bay of Ambaro, at the heart of the Diana region in the north-west of Madagascar, reaffirmed their commitment to the sound management of natural resources. They have adopted the first fishery development plans at community level in Madagascar, in collaboration with the Ministry of Marine Resources and Fisheries and WWF.



These villages (Antenina, Ampasivelona, Ankazomborona and Antsatrana) with their 996 households of fishermen will be the pilot of a formalized local management of fish resources. This has been carried out with the support of WWF.

The economic potential of the Ambaro Bay is considerable if the management of fisheries and marine resources is effective. Indeed, the mangrove forests in the bay are the densest in Madagascar, but their stocks of shrimp have collapsed in the forty years before formal effective management measures were put in place. The natural resources provided by fishing and mangroves are the main sources of income for the surrounding communities.

The application of concerted management measures, integrated into fishery development plans, is a guarantee of the sustainable management of fishing activities, securing increase in revenue for the local communities.

Finally, with the support of WWF, these communities have carried out extensive mangrove reforestation covering more than 300 ha, and alternative income generating activities (duck, goat, chicken farming) have been promoted to reduce pressure on marine resources. In addition, studies on the impacts of and adaptation to climate change at the local level have also been carried out.

Donor: BMZ.



SECONDARY LANDSCAPES

Win-win collaboration between local communities and the private sector



Without the economic development of the surrounding population, a natural resource can not be sustainably managed. This is also the case for the Fandriana Vondrozo Forest Corridor, of which 314,186 ha has been classified as the Ambositra-Vondrozo Forest Corridor protected area in 2015 thanks to the environmental actors involved in the area, including WWF.

This has motivated the team of WWF to promote collaboration between local communities (COBA), the forest manager of the Fandriana and Vondrozo districts, and the private sector. WWF has been supporting and coaching these COBAs since they were created.

In 2016, two companies taught the communities the necessary techniques in order to obtain quality products and then signed production contracts with the members of the communities united in a cooperative or a federation.

The names of the companies are AROMANIA, a company specializing in the production, processing and export of essential oils and aromatic plants, which collaborates with the Maitsoanitra cooperative in Fandriana for the production of geranium essential oils with a plantation of 5 ha; and QUIMPEXX, a company specializing in the production and extraction of the active ingredients of cinchona bark, which collaborates with the Federation of local communities in Vondrozo for the planting of cinchona over a 15 ha area.

Donor: Swedish International Development Cooperation Agency (SIDA).



The North Ifotaky and Ankodida Protected Areas in the Mandrare Valley received their decree of creation in April 2015 with the support of WWF. Since then, the governance and management of these two protected areas have been strengthened.

Surveillance and monitoring patrols now use the LEM-SMART system, a globally recognized patrolling and planning tool. In 2016, eleven local communities (COBA), co-managers of protected areas through 81 community agents in these protected areas, were trained to collect data using this tool.

In addition, the involvement and accountability of stakeholders, such as local authorities and the forest service, are now effective. Using aerial surveillance system, photos taken during the months of November and December 2015 were analyzed in 2016 to identify offenses and to prosecute the offenders. 100% of forest clearings were detected through aerial surveillance and were then verified by land patrols. Aerial surveillance continued in 2016.

All this has made it possible to redirect patrol routes, to enforce the law and sanctions, and to raise public awareness on the illegality of forest clearing. Regarding sanctions, the community convention, or 'dina,' has shown its effectiveness

Enhanced governance in the new protected areas of Nord Ifotaky and Ankodida

because at least 85% of the offenders of known offenses have paid fines. Analyses of aerial photos taken in 2016 showed significant reduction in forest loss in the 2 protected areas: in Ankodida 2.72 ha of forest were lost in 2016 compared to 21 ha in 2015; and in North Ifotaka 51.58 ha of forest were lost in 2016 compared to 190.02 ha in 2015. These are the lowest numbers recorded for these two protected areas since 2010, when we began aerial patrols of these sites.

Furthermore, around the North Ifotaka protected area, electricity from renewable solar and wind energy has led to the creation of income-generating activities such as sewing with sewing machines, welding or the conservation of produces for local market with cold storage equipment. Two associations which bring together 19 economic actors who were directly dependent on natural resources before are now beneficiaries of these alternative activities.

Donor: Wildcat Foundation.



2016 IN NUMBERS

THE MAHAFALY LAND AND SEASCAPE



700

700 fishermen came together in a federation of 15 locally managed Marine Areas for the conservation of the marine areas of the Mahafaly coastline.



+1,000

More than 1,000 canoes have received registration number from the Directorate of Marine Resources and Fisheries as part of the effort for the professionalization of fishermen in the Mahafaly coastline.

THE NORTHERN HIGHLANDS LANDSCAPE



53

53 local communities around the Forest Corridor of Marojejy Tsaratanana are managing their natural resources.



537,465

The Ambohimirahavavy Marivorahona Protected Areas Complex (CAPAM) extends over 537,465 ha.

THE MANAMBOLO TSIRIBIHINA LAND AND SEASCAPE



369,295

369,295 mangrove seedlings have been planted by the Manambolo Tsiribihina communities.



800

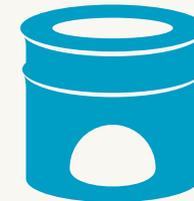
800 households in Mahabo, Morondava and Belo Sur Tsiribihina have been equipped with improved KAMADO cooking stoves since August 2016

NORTHERN MOZAMBIQUE CHANNEL SEASCAPE



996

996 fishermen's households in Ambaro Bay have adopted their plans for the development of community fisheries

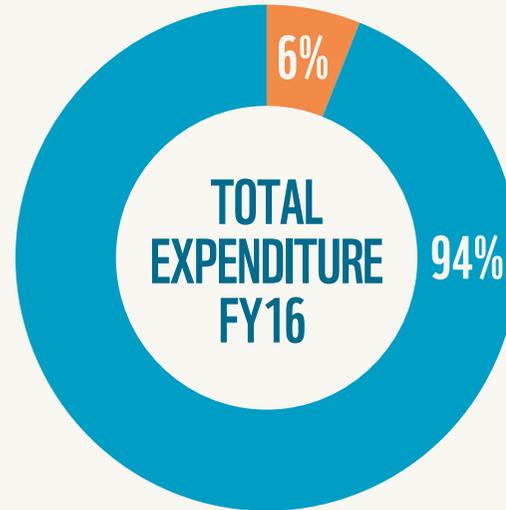


+6,000

More than 6,000 improved stoves distributed in the Bay of Ambaro are helping to save 1,000 ha / year of natural forest.

2016 FINANCIAL REPORT

94% of WWF Madagascar's expenditure are for projects



REVENUES	FY2016	%
From WWF sources	4,914,932	27%
Funding from the Public Sector	11,053,513	61%
Other direct aids	1,818,475	10%
Other revenues	291,747	2%
Total income	18 078 667	

in thousands MGA

EXPENSES	FY2016	%
Main Activity PO	1,040,638	6%
Project Costs	16,202,328	94%
Total of expenses	17,242,966	

in thousands MGA

SUMMARY	FY2016
Total revenue	18,078,667
Total expenditure	17,242,966

in thousands MGA



WWF Madagascar in 2016

2,738,940

Reforested plants

5,668

improved stoves distributed

278,998

Hectares of forest managed by 106 local communities

1

Shrimp aquaculture farm certified with the MSC label for good ecological and social practices.



For more information, please contact:

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Why we are here.

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony and nature.