Linking Nature and Development
2015
ANNUAL ACTIVITY REPORT

A WORD FROM THE PRESIDENT  03

A MESSAGE FROM THE EXECUTIVE DIRECTOR  03

2015 IN A FEW WORDS  04

2015 IN FIGURES  05

SUCCESS STORIES  06

COMMUNICATION  07

PROJECTS SUPPORTED IN 2015  08
2015 was a good year for Man & Nature.

For the first time, our direct support to biodiversity protection practical field projects, implemented by committed NGOs, exceeded 500,000€.

Some of these projects started more than 3 years ago and are now completed. They delivered the expected positive results, despite the traditional ups and downs that all development actors are familiar with. And we have initiated 6 new projects, with support from new funders.

Maisons du Monde, our historical partner, left the Board of Directors to set up its own foundation while maintaining its support to our projects. Our General Assembly has therefore welcomed new members, all of them being biodiversity professionals we can rely on to trace the path.

2016 will see two major shifts in our strategy:

• relying even more than in the past on associations in the South, as they are the ones taking the medium-to-long term fight;

• focusing even more on economy and companies supporting biodiversity conservation, by building up new biodiversity-friendly economic channels, as grants do not last forever and the economic sector must contribute to protecting the planet.

We therefore start the year 2016 with great enthusiasm and confidence.

Rémi GOUIN

Green economy is an approach allowing us to reassess our production and consumption patterns in a sustainable development perspective. It lies at the very core of national and international sustainable growth strategies, and of fight against climate change. It is also closely linked to environmental and local populations friendly jobs creation.

Supporting development of an African green economy will be the dominant theme of Man & Nature’s 2016 strategy. The start of the «Economy and companies supporting biodiversity conservation» project in Cameroon and Senegal, co-funded by the French Development Agency (AFD), will allow Man & Nature to pursue and develop this approach.

In this way, Man & Nature will continue to support public and private actors, and civil societies, in identifying and implementing appropriate responses to consolidate this economic transformation in the region and to expand to new sectors.

The transition to green economy is already under way. The challenge is now to build upon this momentum and to rally more committed entrepreneurs.

We will get there, with your support!

Cécile LACHAUX
In 2015, 15 initiated projects continued their activities (1 in Burkina Faso, 1 in Cambodia, 1 in Colombia, 2 in Cameroon, 1 in Ghana, 1 in Kenya, 3 in Madagascar, 1 in Nepal, 1 in Nicaragua, 1 in Peru, 1 in Senegal and 1 in Zambia). Among these, 5 projects were completed during the year (1 in Cambodia, 1 in Madagascar, 1 in Nicaragua, 1 in Peru and 1 in Senegal).

6 new projects came into operation:

- **3 in Cameroon:**
  - Moabi, wild mango and cocoa: vegetal butters to preserve the Dja Reserve - NGOs AA-FBEN and TFRD;
  - White honey and beeswax: two alternatives to save the Mount Oku forest - NGO CAMGEW;
  - Palm oil production to save the Cross River Gorillas - NGO ERUDEF.

- **1 in India:** Agro-ecology to preserve rusty-spotted cat - NGO Prasad Chikitsa.

- **1 in Morocco:** Beekeeping and sustainable management of the Argan forest - NGO Amanar, with the support of Melvita, an ecological, natural and organic cosmetics company which became one of our partner.

- **1 in Senegal:** Encourage women’s entrepreneurship in the Saloum Delta - NGO Nebeday.

All these projects are displayed on the world map on pages 08-09, and more detailed information can be found in the following pages.
Fundraising has increased compared to 2014 and reached 870,223€. Still, it includes significant settlement of projects advances.

*Maisons du Monde* has contributed 29% of our fundraising (250,000€) and *Chanel Parfum Beauté* has contributed 22% (191,508€).

Furthermore, Man & Nature has secured substantial funding from the *French Development Agency* for a green economy project in Senegal and Cameroon. This project focuses on development of 9 economic sectors, and is implemented by 5 NGOs. The total budget is 191,000€, spread over 3 years, and the project started July 1st, 2015.

Our direct support to field projects increased again to reach more than 500,000€.

General and administrative expenses have decreased from 194,894€ to 173,000€ and are kept to a minimum: very little equipment, limited staff, volunteer work of board members.

Even if Man & Nature’s financial position is healthy, the pursuit of new financing remains a high priority for 2016.
If there were just a few successes by Man & Nature and its partners to keep in mind for 2015, these would be:

**In Cameroon**, the first Mutually Agreed Terms (M.A.T) for marketing *Echinops Giganteus* roots were signed on April 2nd between V. MANE Fils company, Magha-Bamumbu local community and Cameroon’s Minister of Environment, Nature Conservation and Sustainable Development.

These M.A.T., the final step in the access and benefit-sharing process as defined by the Nagoya Protocol, are the first of their kind to be signed in French-speaking Africa.

All along the process that was initiated a little over two years ago, Man & Nature has provided technical support to local NGO ERuDeF in addition to coordination among stakeholders.

The conclusion of this agreement opens the way towards new horizons by involving for the first time the French private sector in a coordinated approach regarding access to genetic resources, sustainable enhancement of biodiversity and equitable sharing of the resulting benefits.

**In Nepal**, thanks to the alembic that was installed last year by Awely with financial support from Technicoflor group on the periphery of Bardia National Park, 600kg of arvensis mint essential oil have been produced.

Part of this production will be used in a fragrance formulation developed by one of the greatest French perfumers on the international market.

**In Madagascar**, with NGO Helpsimus and thanks to the support of Pure Trade company, protection of the Great Bamboo Lemur is well on track. A new population assessment of this species, which is listed in critical danger of extinction by the IUCN, shows that the census population is 10 times higher than what it was in 2008. One quarter of this population lives on the intervention site.

**In Nicaragua**, the project that started 3 years ago with NGO Paso Pacifico for protecting Paso del Istmo forest corridor is now completed. The overall results are very encouraging in terms of flagship species conservation: spider monkeys population has stabilized, yellow-billed amazon parrots population has risen significantly, and two large carnivores are back in the corridor (jaguars and pumas).

**In Senegal**, the Women’s Centre was formally opened on June 5th. This building hosts the «Jappo Liggey» cooperative which brings together 821 women and aims to allow processing and marketing of various local products: moringa, bissap, «Bouye» coffee, honey, straw briquettes... The process was initiated by NGO Nebeday with financial support from Maisons du Monde and allowed to federate 15 villages around a joint project: preservation of Sangako Forest.

**Finally, in September 2015**, Man & Nature officially launched the «Economy and business serving biodiversity» project. It aims to set up an innovative model for biodiversity conservation, based on development of value chains for the benefit of local populations living in and around biodiversity hotspots. 50% of the overall budget is supported by the French Development Agency.

The project affects 2 countries (Cameroon and Senegal), 9 economic sectors, 5 NGOs, 44 producer groups gathering 3,510 producers (50% of them being women and ethnic minorities).
More involved and more participative, the TV broadcast «Ô bout du monde» on France Ô channel aims to make people aware of local initiatives supported by Man & Nature.

In the first episode broadcasted on April 5th, 2015, a focus was made on Madagascar and local actors involved in preservation of fauna and flora.

The second episode broadcasted on October 4th took us to Senegal to meet NGO Nebeday which assists local people in living sustainably from natural resources.

Man & Nature’s communication strategy is also based on its new bilingual website (www.manandnature.org) and on an increased presence in social media.

Furthermore, Man & Nature will develop a web-tv, hosted on its website, to highlight efforts to conserve biodiversity and the services it offers to mankind.

«Yes indeed, I have wished to join Man & Nature’s Board, because my commitment, as a co-founder of the association, could not be limited to just initiate or launch projects.

As a public television journalist for more than 30 years, I cannot hide behind the duty of objectivity and confidentiality conferred by my press card. I therefore decided to take action on the field and to support the projects developed by our specialists. I think it is my duty to make the general public aware of our actions around the world, their validity and their efficiency. Both the present time and the future require it. That is why, as a first step, I have put Man & Nature on the screen with «Ô bout du monde» documentaries, to show everyone that the future of mankind is critically linked to the planet’s one, and that it depends on our efforts and involvement, no matter how small».

Laurent Bignolas
Vice-President
INNOVATIVE SOLUTIONS TO BETTER PROTECT THE AFRICAN MEGAFAUNA

Village hunting areas combining production and conservation

The faunal reserves of Pama and Singou form part of the larger National Park of Arly and other transboundary protected areas (Park of Pendjari and Park of W). They are one of the very last zones of major importance for large animals in Western Africa.

Pressure on these zones has been steadily increasing due to strong population growth and increasing needs for farming lands. It is no longer an option to exclude communities from these areas, especially when we know that there are solutions which can involve them in the collection and processing of non-timber forest products that may rapidly turn into benefit for them.
The site and its biodiversity
The National Park of Arly and the adjacent faunal reserves (gaming zones) are home to all the animal species of western Africa’s savanna, such as elephants, buffaloes, large antelopes (hartebeest, western hartebeest, cobs) small antelopes (bushbucks, Grimm duikers, oribi) and carnivorous mammals (lions, caracals, etc.)

Major issues
Natural resources in the village territories peripheral to the protected zones suffer from anthropogenic pressures resulting from land clearing for farming purposes, nomadic cattle-raising, fuel wood collection, charcoal production, bush fire, and poaching.

Villagers are easily tempted to draw from faunal reserves those resources that are becoming depleted in their territories.

Committed partners
The Association Fauna and Development in Burkina Faso (AFAUDEB) is a non-profit organization registered in Burkina Faso in 2008. One of the organization’s aims is to set up Village Hunting Areas (known under the French acronym Zovic). This official status enables local communities to conserve and manage on their own forest zones located in their territories.

The organization works to identify and generate income from these zones through the use of savanna products such as karate, baobab, tamarind, and balanites fruits, Arabic gum acacia, beekeeping, etc., small scale gaming for tourists, market gardening and microcredit for women, community organization for the selling of the products in towns. In addition, it conducts actions to fight illiteracy, builds small infrastructures such as wells, classrooms, product storage and processing rooms, and supports a significant reforestation program.

Real opportunities for change
The organization is already operating on about 10,000 hectares of village protected zones and intends to expand the initiative to all of the 200 villages located around the faunal reserves of Pama and Singou, as well as to set up sustainable natural resource use systems that would generate significant income for the communities from the zones that are under their official control. It is thus expected to curb the degradation process.

The development of structured production subsectors that deliver high quality products from the protected zones will result in a sustainable model that can be replicated.

The project
The project aims to ensure conservation and sustainable use of village lands in Eastern Burkina while improving the communities’ living conditions and strengthening the protection of large adjacent natural habitats.

Project objectives
Support conservation and sustainable use of biodiversity in village hunting areas.
- Create and develop protected village forest habitats;
- Enhance the value of non-timber forest products from the zones as an incentive for local communities to conserve them;
- Improve farming practices to minimize farming land extension and routine clearing of forests;
- Work on social and governance aspects to promote empowerment, leading in turn to the sustainability of the actions initiated.

Main achievements in 2015
Biodiversity conservation
1. 83.5km of tracks have been traced and cleared through the mobilization of 176 people
2. 6 early fires have been fired off to combat bushfires.

Economic development
1. 686 kg of honey have been produced by 24 beekeepers (732€ turnover)
2. 448 kg of shea butter (turnover: 810€) and 1,993 soaps (turnover: 877€) have been sold.

Social environment
1. 216 women trained in non-timber forest products sustainable collection techniques
2. 1 exchange trip for 30 beekeepers
3. 100 women trained in vegetable oils and soap production.
The forest of Veun Sai – Siem Pang at the edge of the Virachey National Park forms part of the largest pristine forest area in Southeast Asia. It is the privileged habitat of large carnivorous animals and several rare and threatened primate species.

Indigenous populations still make a living from collection and hunting. They are gradually developing farming in such a way as to protect the forest and its exceptional fauna while maintaining their historical rights over the forest.
**The site and its biodiversity**

The zone of Veun Sai – Siem Pang encompasses about 55,000 hectares of primary forests and is adjacent to the Virachey National Park, the biggest park in Southeast Asia. This park is also adjacent to two national parks in Laos and Vietnam. Together, they form the single largest pristine forest area in Asia, home to flagship species of the Lower Mekong such as the Indochina tiger, and other threatened species such as the Asian elephant, the clouded leopard or the Siamese crocodile. The site is highly representative of the biodiversity and ecosystems of the Annamite cordillera.

**Major issues**

The 2,200 inhabitants of the five concerned villages still make their living from forest products, but this livelihood is no longer sustainable. Wild animal hunting and trading supply the Chinese and Vietnamese markets with prized food and traditional pharmacopeia products. Precious woods and resins of some species are also exploited with no thought paid to sustainability. Though the forest area is still large, local communities want to defend their rights to live on their ancestors' land. However, their illiteracy, their lack of financial resources and lack of support from the central administration do not allow them to take proper actions.

**Committed partners**

The NGO “Poh Kao, des Tigres et des Hommes” is a French international Solidarity Association that works in Cambodia. Since 2006, it has been striving to protect the natural heritage and the economic and social development of communities in this zone. Working with Conservation International, it initiated the formalization of conservation contracts and encouraged the setting up of community-managed forest as a way to enable local communities to live in their natural environment. The lives of the various ethnic minorities in this zone are intertwined with the forest on all aspects: economic activities, social organization, and cultural beliefs (the zone is home to two spirits, founders of their communities). Therefore, they are highly committed to protect the forest while maintaining their customary and historical rights.

**Real opportunities for change**

Nowadays, collection of forest products and hunting account for 61% of the villagers' income, against 23% for farming, and 8% for small livestock. The project aims at bringing a gradual shift from hunting and collection to farming among the local communities. In consultation with them and the forest administration, Poh Kao developed a strategy based on: (i) formalizing the protection of the forest with acknowledgement of the communities' rights to some uses; (ii) developing farming activities as an alternative to collection of forest products; (iii) conducting a large program to raise awareness among communities, and especially children at school, on conservation; (iv) improving water supply for villages and schools. An additional component to this strategy is the promotion of some forest resources such as Konjac, a wild plant whose cultivation will be tested and Gurium resin whose sustainable exploitation will be specified.

**The project**

Protection of the Veun Sain – Siem Pang primary forest through the involvement of indigenous communities: establishing conservation and sustainable use models for village lands in North-East Cambodia to improve local communities' standards of living.

**Objectives**

- Ensure that the Veun Sai – Siem Pang is given the status of National Protected Forest by the Forest Administration. Establish forest and wild resources protection contracts in the five concerned villages.
- Improve the living conditions of local communities by supporting the development of farming as an alternative to forest product collection. Enhance the value of wild natural resources that can be exploited in a sustainable way.
- Improve education and health services with priority given to environmental education and access to water.

**Main achievements in 2015**

**Biodiversity conservation**

1. 60 meetings to support the proper operation of NRMC
2. 171 books and 737 drawings about fauna, 300 coloured pencils and 55 stuffed animals distributed to 5 teachers to prepare environmental education workshops
3. 4 documentary films shown to 640 villagers.

**Economic development**

1. 1,880kg of leguminous seeds distributed to 320 households
2. 800kg of jasmine rice seeds distributed to 125 beneficiaries from 5 villages.

**Social environment**

1. 1 training on medicinal virtues of forest plants carried out to 38 people
2. Inventory of medicinal plants carried out and published after 4 years of research
3. 4,855 vaccinated animals.
Lebialem is a large mountainous forest zone that is home to 20% of the remaining Cross River gorilla population, one of the most threatened primate species in the world.

Pressures on large apes will gradually disappear as a sanctuary is set up with the contribution of local communities and as income-generating activities are developed in peripheral villages.
The site and its biodiversity
The intervention zone stretches over 15,000 hectares in southwestern Cameroon and is made up of a range of abrupt hills alternating with fertile valleys where household-scale farming has developed. The remaining forest is home to plant and animal biodiversity whose wealth is unquestionable, and shelters several threatened species, including one of the rarest primates of the world, the Cross River gorilla. A threatened chimpanzee sub-species known as the Nigeria Cameroon chimpanzee is also found in this area. Thanks to its highly diverse habitats, the zone is also home to a big number of bird, reptile, amphibian, and butterfly species, with high levels of endemism.

Major issues
The remaining forests suffer from pressure resulting from land clearing for farming. Despite their small number, gorillas remain a prized catch for hunters. Local communities practice extensive farming and hunting products are a major source of proteins in their diet. The region has very poor access to urban markets due to the dirt roads’ conditions. Local communities have poor living standards and their main economic activities are food crop farming, collection of forest products, traditional production of palm oil, hunting, and fishing. The zone has high population density and the population growth rate is also high, at about 4% per year. In theory, the Ministry of Forest, Fauna and Flora is responsible for the management of forest and threatened species, but in practice this department has no agent dispatched to the field. Traditional authorities do not have set rules when it comes to forest resources management or hunting restrictions.

Committed partners
ERUDeF is a Cameroonian association that has worked in the zone for several years. It works to conserve biodiversity and to protect sensitive ecosystems through research, training, education, and community involvement. Breaking Ground is another association that works on this site but that is more focused on farming development (palm oil, cocoa, and coffee). ERUDeF has started supporting the setting up of Forest Management Village Committees in some villages and in grouping them into the Tofala Forest Management Council. These local structures benefit from the Administration’s recognition but need to be supported in order to develop their management capacities.

Real opportunities for change
To launch the conservation of the Cross River gorilla population, ERUDeF chose the option of setting up a sanctuary of more than 8,000 hectares that is to benefit from official recognition by the Ministry. The approach promoted provides for preserving the ecosystem’s integrity (no destruction of the forest and no hunting of protected species) while allowing local communities to access the site. Concurrently, a significant effort will be made to develop income-generating activities such as improving palm oil production in quantitative and qualitative terms, enhancing the value of forest products, hog raising, or beekeeping. This overall program will be strengthened with the promotion of other agricultural resources such as coffee and cocoa, training in agroforestry, and an important social component. All of these will contribute to foster acceptance of the program to protect gorillas and their habitats among local communities.

The project
Conservation and sustainable use of biodiversity in South-West Cameroon through the establishing of the Tofala Hill Sanctuary for Cross River gorilla and chimpanzee conservation, with the support of local communities and in synergy with their economic and social development.

Objectives
- Secure recognition of the sanctuary and establish a management plan that includes prohibition of hunting.
- Provide economic incentives to local communities by improving income from agriculture and rational exploitation of natural resources.
- Improve social infrastructures, training of young people and sensitization of adults.
- Make village organizations responsible for action implementation.

Main achievements in 2015

Biodiversity conservation
1. 12 bio-monitoring missions carried out
2. Groups of chimpanzees regularly observed and a female gorilla spotted
3. 3,500 trees planted next to water points
4. 15 radio programmes on environmental issues broadcasted locally
5. 3 issues of Green Vision newspaper published and 10,000 copies distributed
6. 6,150 pupils made aware of biodiversity conservation issues
7. 16 plant nurseries set up in schools.

Economic development
1. 1 market study on local demand carried out in 7 villages
2. 7,600 pear seeds and 2,000 orange seeds planted to enrich nurseries
3. 30 pigs and 35 hives distributed after technical training
4. Micro credit funds granted to women in communities for soap production.
Third summit of Cameroon by its height, Mount Bamboutos is home to a unique biodiversity as well as to a plant with promising potentialities.

Through substantive work done with local communities and the involvement of a French business, the project aims to enhance the value of a new plant species to help protect the local biodiversity.
The site and its biodiversity

Overlapping three major regions of Cameroon, Mount Bamboutos stands at 2,740 meters. Its location gives it special importance: it is one of the country’s richest zones in terms of biodiversity and ecological services to man. Many streams and rivers originate on its sides, covered by dense rainforest. These formations are home to many threatened species, including the flagship Cross River gorilla, the Nigeria-Cameroon chimpanzee, two bird species – the golden Touraco and the Bamenda Pirit, in addition to several other plant and animal species.

Major issues

Poor management of the Mount Bamboutos forests coupled with unregulated intensive farming in low-lying areas has had negative consequences: the natural vegetation has become severely degraded, springs located on hillsides are drying up, and soil degradation is ever worsening. All of this seriously threatens the zone’s biodiversity. The local communities are mostly farmers involved in subsistence farming and cattle-raising. Overall, they oppose the creation of an integral ecological reserve as planned by Cameroonian authorities since 2009.

However, the village communities are aware of the importance of preserving the mountain and are much more open to actions that combine conservation and development. It is now time to act to preserve this unique site in a lasting way so that future generations can benefit from the same ecological services that are currently provided.

Committed partners

EfuDeF is a Cameroonian nongovernmental organization that has worked in the zone for several years. It works to conserve biodiversity and to protect sensitive ecosystems through research, training, education, and community involvement. It supports the setting up of Forest Management Village Committees in some villages. These local structures benefit from the Administration’s recognition but need to be supported to develop their management capacities. Some villages such as Magha have volunteered to set up a cooperative structure under the project to promote Echinops.

Real opportunities for change

Echinops giganteus is a plant species that present a potential interest for the perfume industry. It was identified and located in the region of Caldeira in Mount Bamboutos where it grows in the wild and is used from time to time as condiment in cooking. The production and marketing of this plant are part of an agricultural diversification integrated into biodiversity conservation. This effort will offer an excellent opportunity to promote in Cameroon the Access and Benefit Sharing process derived from the Nagoya Protocol. The development of this plant will serve as an incentive for the ecological restoration of Mount Bamboutos. The project will catalyze the local communities’ response to the issues of deforestation, intensive farming and water management.

The project

Preservation of Mount Bamboutos' biodiversity and ecological role through sustainable promotion of plants of economic interest in the zone.

Objectives

- Further understanding of plant resources in the zone
- Develop a sustainable, fair and traceable supply program with interested businesses. Formalize procedures on Access and Benefit-Sharing among concerned partners.

Main achievements in 2015

**Biodiversity conservation**
1. Creation of a community forest on a landslide high-risk site
2. Tree nursery implemented and 5ha reforested
3. Zone mapping to identify strategic water resources.

**Economic development**
1. Creation of MoBECOS (Mount Bamboutos Echinops Cooperative Society)
2. 60 cooperative members trained in governance and management
3. Further cultivation tests of Echinops giganteus
4. First extraction of Echinops roots and completion of the research phase
5. Preparation of cooperative members for signing the marketing agreement
6. 150 hives installed and colonized for 15 beneficiaries.
The Dja Biosphere Reserve stretches over 526,000 hectares in eastern Cameroon, a tropical area particularly rich in biodiversity where anthropogenic threats are increasing a little more every year.

Implementing an innovative conservation model based on the development of economic sectors to benefit local communities would create a trend for sustainable management of forests outlying directly the reserve.
**The site and its biodiversity**

Established in 1950 by the colonial administration, the Dja Biosphere Reserve (DBR) covers 18% of Cameroon’s National Protected Area network.

With its unique wealth, the reserve is home to many species: over 109 species of mammals (lowland gorillas, chimpanzees, forest elephant, etc.), 360 species of birds (white-necked rockfowl, African gray parrot, Dja river warbler, etc.) 62 species of fish and 207 species of trees such as Moabi.

**Major issues**

The project is implemented in two forest areas located in the north and the east, outlying directly the reserve, with a total area of about 80,000 ha. Twenty-five villages are involved in the project.

This conservation area suffers from on-going degradation due to the increase in the rural population and overexploitation of natural resources (timber, charcoal, poaching, fishing, non-timber forest products for food and pharmacopoeia).

The constant pressure on natural resources results in loss of biodiversity, at the expense of the poorest rural communities that lead traditional lifestyle.

**Committed partners**

Two NGOs work in a complementary way on this project:

1. The NGO AAFEBEN works in the eastern outskirts of the reserve with 10 community forests. It supports 10 groups comprising of 350 women from the Baka (Pygmies) and Bantu ethnic groups to collect and sell forest products such as wild mangoes and Moabi. It aims primarily to encourage women entrepreneurship projects with a strong component focusing on ethnic minorities.

2. The NGO TFRD (Tropical Forest and Rural Development) works on the northern outskirts of the reserve in an area of 30,000 hectares with 15 villages. As part of its objective of protecting the reserve, it helps farmers intensify cocoa production and develop non-timber forest products in the area. It coaches160 farmers in the area, including 50 women, supports their organization into cooperatives and builds their technical skills for production.

**The project and the prospects for change**

The project plans to work on three economic sectors:

1. **Moabi oil (Baillonella toxisperma).** Moabi is a tree whose wood is sought after by industrial logging companies for the international market. Moabi fruits produce an oil-rich seed, traditionally used in Central Africa for food and cosmetics. In the long term Communities’ income derived from this product can be much higher than the price of wood whose exploitation benefits almost exclusively to timber harvesters;

2. **Wild mango (Irvingia gabonensis),** whose almond is sold for food on the local market and to Nigerian wholesalers. Mango butter produced from pressing the almond is of interest to the cosmetic industry, mainly in the South African market;

3. **Cocoa** which now accounts for up to 50% of the income of some farmers in the area, with the establishment of a rational agroforestry system and the “Rainforest Alliance” certification.

Some of the results expected from the project include improved collection and drying techniques; the establishment of a pre-processing platform for primary products (vegetable oils and butters); and the creation of a marketing and export structure.

The project will contribute to the preservation of the reserve as well as to improving the local communities’ livelihoods by recognizing their right to access natural resources, by establishing a sustainable resources management system through consensus, and by enhancing the economic value of local production.

**Main achievements in 2015**

At the time this document was released for printing, the partner NGOs’ first semi-annual reports have not yet reached us.
Mount Kilum Ijim is home to the largest West African mountain rainforest. Unfortunately, bush fires that destroy unique ecosystems regularly cross it.

With the variety of melliferous plants that it shelters, this unique forest allows for producing high quality honey. The development of beekeeping can reverse the trend of destruction and reduce the threats to biodiversity by creating new sources of income for local communities.
The site and its biodiversity
The 18 community forests of Mount Kilum Ijim cover an area of 20,000 hectares that surround a beautiful crater lake located at an altitude of 3,011m in northwest Cameroon. They are home to endemic species such as the Bannerman’s Turaco and Bamenda Batis, two bird species particularly threatened by habitat loss.

Flora that has developed in this high altitude area is particularly varied. It has many species such as Prunus africana and Pittosporum veridiflorum whose products are highly sought after by the pharmaceutical industry. The existing combination of melliferous and medicinal species allows for producing a special kind of honey, the Oku white honey.

Several hundred traditional hives are present in the forests and contribute to enhancing the value of this exceptional biodiversity.

Major issues
The area around Mount Kilim Ijim is one of the most densely populated in Cameroon: 300,000 people live within less than one walking day from forests that are vulnerable to many threats such as the extensive agricultural and animal-farming development, deforestation and bush fires that endanger the ecological balance.

On site, the communities organise themselves: a first cooperative of 1,200 beekeepers was created a few years ago. Beekeepers place their hives in the forests and contribute to forest protection as honey and beeswax products represent a significant share of their income. Since 2013, Oku white honey has even been benefiting from Protected Geographical Indication (PGI).

Committed partners
The NGO CAMGEW has been working with beekeepers since 2012, organizing and training them on honey and wax production. Its goal is to protect Kilum Ijim forests as a whole by developing beekeeping. Thanks to its support, the Oku cooperative already produces about forty tons of honey per year in the zone, out of which about ten tons are labelled with the PGI “Oku white honey”.

CAMGEW also educates villagers to preserve the forest and planted nearly 20,000 melliferous trees to regenerate the sensitive areas in the forests. The flagship species is Prunus africana, which used to be plentiful in the Oku forest in the past but whose bark has been overexploited for pharmaceutical uses. Its exploitation is currently banned but this species loved by bees is of very high economic potential.

The project and the prospects for change
The project aims to support farmers in 25 villages to develop economic subsectors that are favourable to biodiversity conservation.

By organising and supporting beekeepers to create four new cooperatives able to produce quality honey and wax, and by better marketing these products (on national, regional or international markets), it is expected to increase the income of the local communities and thus offer them more incentives to protect the forest.

Activities planned include:
• training of beekeepers in the relevant villages on improved production techniques;
• structuring of cooperatives and provision of initial working capital;
• supply of production equipment;
• establishment of a business strategy and identification of outlets;
• development of guidelines for proper management of production areas;
• enriching the forest by planting melliferous species.

The setting up of cooperatives and the opening of two outlets (in Bamenda and Yaounde) should allow for producing and marketing five tons of honey.

Regarding wax, the goal is to improve production and its promotion on the domestic market.

Trial sales on the international cosmetics market will also be conducted in connection with Man & Nature.

Main achievements in 2015
At the time this document was released for printing, the partner NGOs’ first semi-annual reports have not yet reached us.
The Lebialem is a vast mountainous forest area which houses 20% of the remaining population of the Cross River gorilla, one of the world’s most endangered primate species.

By encouraging the development of income generating activities such as sustainable production and certified palm and palm kernel oil, pressure on the fauna and flora will be progressively reduced.
The site and its biodiversity
The project is located at the outskirts of Tofala Hill Lebialem, in the South West region of Cameroon. Thanks to the presence of an exceptional fauna, this reserve was officially recognized by decree in September 2014.

The intervention area covers about 15,000 hectares. The remaining forests are home to a rich biodiversity whose wealth is undeniable. Several endangered species are present in one of the rarest primates in the world: the Cross River gorillas. This is also the case of a chimpanzee subspecies known under the name of the Chimpanzee of Nigeria.

The diversity of habitats in the area has created a shelter of a considerable number of birds, reptiles, amphibians and butterflies species with one of the highest endemicity in the region.

Major issues
Fauna and flora of the Tofala sanctuary is at risk because of the proliferation of illicit activities: poaching (bushmeat), illegal logging, and deforestation for the development of new agricultural parcels. The sanctuary remains extremely vulnerable pending the implementation of a robust development plan.

The project area is constituted by a succession of steep hills, separated by relatively fertile valleys where family farming occur. The local population is particularly poor and suffers from a lack of basic infrastructure access.

Introduced by the Germans at the beginning of last century, the extensive planting oil palm is one of the local products that still generate some income. However, farmers extract oil under very difficult conditions; they use manual extraction, plant marginal varieties, suffer from the extreme isolation of the farms and the poor transportation system that reduce market access.

Committed partners
The NGO ERuDef is a Cameroonian association that has been working for several years in the area. The association works for the conservation of biodiversity and the protection of fragile ecosystems through research, training, education and community involvement. Thanks to ERuDef hard work, the Sanctuary Tofala Hill was created by decree.

Since 2 years, ERuDef is working with local communities to improve palm oil production and has assisted them in the creation of 3 cooperatives of producers / processors.

The project and the prospects for change
The establishment of three mechanized presses since the last two seasons has helped produce quality oil with a much better performance than traditional presses.

Although local communities are now using these tools, considerable work remains to be achieved to improve their supply, production methods, packaging, transportation and marketing of produced oil for a fair price.

The project aims to strengthen the existing producer groups and create a social enterprise responsible for the marketing of the products.

These will include:
• To better organize the collection of palm fresh fruit bunches to increase the profitability of the presses;
• To provide technical support during pressing activities, and improve clarification and effluent discharge into the natural environment;
• To equip groups with efficient equipment in order to significantly improve the collection, packaging of the final products;
• To support the marketing of the final products on local and national markets;
• To create a social enterprise responsible for inventory management, quality control, marketing products and possible export.

In the final year of the project, 30 tons of palm oil should have been placed on the market. In parallel, international opportunities will be sought for palm kernel oil, produced by pressing almonds contained nuts.

Main achievements in 2015
At the time this document was released for printing, the partner NGOs’ first semi-annual reports have not yet reached us.
SAVE THE TITI MONKEY THROUGH THE BREADNUT TREE
A system combining agriculture, forest and cattle raising for the conservation of the last specimens of this species

Dry forests of Colombia are extremely rich in animal and plant species. Unfortunately they are undergoing pressure because of extensive farming, which are currently leading to the extinction of certain primate species.

Innovative landscape management however not only offers opportunities to prevent forest destruction but also sustainable economic solutions to local communities.
The site and its biodiversity
The zone where the project is found is made up of two dry tropical forest reserves: an ecosystem with a very high level of endemism, of which only 2% of the original area remains today. In these reserves, we find approximately 250 cotton-top Tamarins (Titi monkey), an endemic primate species of the Columbia's coast, dwelling solely on trees. Considering that there are only 2,000 adult specimens in the wild, these two reserves are crucially important for the survival of the species. They are separated by 1,000 meters of non-forested area preventing their connectivity and are surrounded by vast stretches of land on which extensive livestock farming takes place.

Major issues
Livestock owners continue to cut down secondary forests around the reserves and villagers living on the outskirts of these protected areas put pressure on natural resources through wood gathering, charcoal making and poaching. There is a great temptation to draw on the resources found on the reserves to supplement low incomes. In addition, numerous projects have threatened this area in the past: mining operations, construction of an airport or a pipeline.

Committed partners
The forest protection association Envol Vert is specialized in sustainable reforestation projects. It has 3 years of experience in Columbia, in particular concerning an extraordinary tree, the Breadnut, which is sufficiently robust to restore these difficult zones. Its nuts can serve as food to both animals and humans, and its leaves can serve as cattle feed. For this innovative project, Envol Vert has associated itself with the foundation « Proyecto Titi » that develops research programs on the cotton-top Tamarin, as well as on education and on community development in this area. It also partners with Asoartesanas (a local association that makes artisanal ecological recycled plastic bags), with El Ceibal hacienda owners and with the communities of Los Limites and Santa Cruz.

Real opportunities for change
The project aims to develop agroforestry and sylvopastoralism, allowing those without land to develop new sources of income. It would also allow stockbreeders to increase the profitability of their cattle by developing under forest cover pastures and to reduce their chemical fertilizer needs and costs. At the same time, this will reduce erosion by allowing the return of dry forest that is particularly threatened. The project also addresses some biodiversity specific aspect with the creation of an ecological corridor between the two natural reserves, linking two remaining groups of the cotton-top Tamarin – one of the most threatened primates in the world.

For this reason, the project highlights a tree: the Breadnut or the Maya nut tree (*Brosimum alicastrum*), a native species, known for its timber quality. This tree’s presence and sustainable exploitation has benefits for biodiversity; in a sylvopastoralism context, it increases cattle profitability. It also leads to food safety and helps generate new incomes for populations through the use of its seed.

The project
Use the breadnut tree to develop and secure an agro-sylvo-pastoral system by combining reforestation, protection of the cotton-top Tamarín’s ecosystem, sustainable development of cattle farming and income increase for the local populations.

Objectives
- Management of 75 hectares of agricultural parcels through agro-sylvo-pastoralism: planting the breadnut tree in association with food crops and cattle pastures.
- Increase of food safety within the community through a training in seed cooking and by increasing crop yields.
- Creation of new economic alternatives for the community’s local value chains, centered on the breadnut tree seed and development of seedlings sale from tree nurseries.
- Creation of an ecological corridor between the two reserves to encourage the link between the two populations, key to the cotton-top Tamarin’s survival.

Main achievements in 2015

**Biodiversity conservation**
1. 1 tree nursery with 1,500 seedlings in permanent rotation
2. 800 metres of fencing to protect plantations from cattle
3. 1 irrigation system from a 6,000 litres tank installed
4. 90 breadnut trees planted.

**Social environment**
1. Training in cooking with Maya nuts followed by 60 people
2. 2,335 people made aware of biodiversity conservation issues through 26 different activities
3. 650 banana seedlings distributed to involved farmers.
THE KWABRE TRANSBORDER COMMUNITY-MANAGED RESERVE

A final attempt to save three African primates from extinction

The swamp forests of Kwabre in Ghana and Tanoe in Ivory Coast are a unique sanctuary, home to three endangered flagship primates. Caught between deforestation, forest product trafficking, and bush meat trade, their survival hangs by nothing more than a thread and... the will of human beings!

The creation of a transborder community-managed protected area on the initiative of local communities offers a unique example of positive partnership between the two countries and should, by the end of the project, allow for the protection of the entire area.
The site and its biodiversity

The forests of Kwabre in western Ghana (2,500Ha) and Tanoe in Ivory Coast (12,000Ha) extend on either side of the Tanoe River. They are home to an exceptional biodiversity with 1,800 endemic plant species, 31 bird species, 35 mammal species, and 49 amphibian species; they are also the last habitat of the Roloway monkey (Cercopithecus diana rolaway), one of the 25 most endangered primates of the world, as well as the White-collared mangabey (Cercocebus atys lunulatus), and probably the Western red colobus (Procolobus badius) which, if it is not found in this forest, will be considered as extinct in the wild.

For numerous years, biologists have been alarmed by the risks of extinction of these different species and have been encouraging governments and the civil society to respond.

Major issues

Although they are not accessible because of the flooding for a large part of the year, these exceptional spaces are endangered by the deforestation associated with the large-scale development of cocoa, rubber tree, and oil palm plantations.

Today, failing any formal agreement between the Kwabre (Ghana) and Tanoe (Ivory Coast) forests, an increasing number of Ivorians venture into Ghana in order to traffic forest products and bush meat.

Unless action is taken, the fate of these forests will not only be utter destruction but resident populations will also become increasingly vulnerable, with migration as the only resort left to them.

Committed partners

WAPCA (West African Primate Conservation Action) was created in 2001 by employees of different European zoological parks with the goal to conserve endangered primate species in Western Africa. The Ghanaian branch was created in 2005 and the veterinary Jeanne-Marie Pittman leads today.

The proposed project was created in answer to the local communities’ request for support in the conservation of the Kwabre forest. On the Ivorian side, an association’s activism has already allowed to put 12,000 hectares of the Tanoe forest under protection at the expense of an oil palm plantation project.

It therefore appears that on both sides of the border, communities and NGOs are standing ready to ensure this initiative’s success.

Real opportunities for change

The situation is simple: the populations causing pressure on these spaces are extremely poor; providing effective support to the local communities’ agricultural development should not only allow for preventing the Kwabre forest’s conversion into low-productivity extensive agricultural lands, but also for mobilizing these populations to defend their ancestral lands against illegal loggers and poachers.

As such, the project provides for the implementation of a sustainable management of the Kwabre forest by and for the local communities, through the development of alternative income-generating activities. It also offers to create the first transborder community-managed reserve to reduce the fragmentation of one of the areas - home to one of the richest biodiversities of the Upper Guinean Rainforest.

The project

Creating the first transborder community-managed reserve of Western Africa to protect and conserve the Kwabre forest.

Project objectives

- Organize local communities so as to ensure better management of natural resources and protect the community-managed forest by setting up forest patrols;
- Restore the forest cover and biodiversity through reforestation and creation of income-generating agroforestry activities;
- Initiate steps for the creation of the first African community-managed transborder reserve with Ghanaian and Ivorian authorities.

Main achievements in 2015

Biodiversity conservation

1. Natural resources management plan finalized and implemented
2. 3,100 seedlings from species attractive to primates replanted in degraded forest over 8ha
3. 12 patrol crews created
4. 8 camera traps installed.

Economic development

1. 9,200 seedlings planted to create 12 agro-forestry plantations over 24ha.
AGROECOLOGY FOR THE CONSERVATION OF BIODIVERSITY IN THE TANSA VALLEY

Thane district’s dense forests are surprisingly rich in biodiversity. They are home to 172 butterfly species, 150 local bird species and more than 170 woody plant species, including anti-diabetic plants of global pharmaceutical interest.

Natural habitats are suffering from serious pressure from the surrounding poor communities whose immediate needs take precedence over biodiversity and climate concerns. Developing the local economy through alternative organic farming will reduce threats to biodiversity while improving communities’ incomes.

Organic crops for conserving natural habitats and improving local communities’ income.
The site and its biodiversity

The goal of the project is to support the conservation of habitats in the outskirts of the Tungareswar sanctuary and by extension the national park Sangay Gandhi and the associated biological corridor. As such, the project aims to protect an area rich in biodiversity that is home to 50,000 insect species, 172 butterfly species and 150 local birds species, and in particular to improve the conservation of the rusty-spotted cat (Prionailurus rubiginosus), that is classified as vulnerable by IUCN and is listed in CITES Appendix I.

Major issues

The transformation of areas peripheral to the Sanctuary into agricultural production land and the uncontrolled clay exploitation for brick-making for the megacity of Mumbai are the two main factors contributing to progressive disappearance of biodiversity in the region. As Mumbai expands, the balance of the local ecosystem is gradually lost.

The living conditions of the surrounding poor communities deteriorate due to increasing pollution combined with the depletion of natural resources on which they rely.

The reduction of plant diversity affect how the entire ecosystem works, reducing the atmosphere's carbon dioxide absorption capacity and accentuating the effects of climate change both in urban and rural areas.

Committed partners

Since 2001, Prasad Chikitsa has been implementing community development programs in the Tansa Valley, India. The NGO is particularly well integrated into the region thanks to the exemplary support it has been providing through its health programs. Having added agricultural technicians to its team since three years ago, Prasad Chikitsa is in position to ensure the integration of crop diversification in local contexts.

The collaboration with community members is important as it allows developing projects that meet their needs and effectively contribute to improving their quality of life. The agricultural, environmental and education projects developed by Prasad Chikitsa benefit to over 300 self-help groups.

Real opportunities for change

For the Maharashtra region to achieve a certain level of prosperity, it is important to strike a balance between urban, industrial, rural and forest areas. It is possible to secure an area containing cultural and natural wealth of Maharashtra for the benefit of present and future generations. A formal proposal to include eco-sensitive areas in the development plan of areas peripheral to Mumbai seems promising to maintain important ecological links.

The project

Reduce pressure on forest areas and thus contribute to the conservation of sensitive areas by helping local communities living around the sanctuary to improve their living conditions.

Project objectives

The overall objective is to contribute to improving the income of local communities through organic agriculture and agroforestry, including the promotion of planting of trees with economic value.

The specific objectives are as follows:

- Develop a watershed management program to ensure sustainable use of water resources;
- Develop a tree planting program with trained farmers and women's groups;
- Support farmers to adopt organic and sustainable production techniques;
- Identify and promote promising alternative crops such as cultivation of aromatic plants;
- Incorporate environmental education programs in schools and village communities.

Main achievements in 2015

Biodiversity conservation
1. Women from surrounding villages trained on setting up nurseries
2. 3,500 Ain, Mahua, Teck, Tamarin or Acacia seeds planted
3. Study on land and water resources management completed
4. Training of farmers on organic production techniques completed.

Economic development
1. Economic potential of non-tree forest products reviewed
2. 40 dragon fruit tree seedlings and 100 kg of Mahua seeds planted.

Social environment
1. 12 environmental awareness-raising workshops organized with 416 participants.
In East Africa, it is estimated that at least 10% of territory needs to be covered by forest in order to retain water necessary to life, to preserve local biodiversity, and to keep the soils fertile. In Kenya, less than 2% fits that description, and like in many parts of the world, access to water becomes a source of conflict.

In order to ensure health and food safety for the Maasai populations that live at the border of the Amboseli National Park, committed partnerships are created to solve the main issues, which these traditional communities have to face.
The site and its biodiversity

The grazing land (the intervention area) - traditionally used by the Maasai, is found in the Amboseli region, in the heart of the Great Rift Valley, not far from the famous Mt. Kilimanjaro. Amboseli National Park is a biosphere reserve, classified by Unesco, which has a high concentration of large mammals, particularly elephants, lions, hyenas, impalas, giraffes, gnus but also many birds (pelicans, eagles, falcons, kingfisher, bee-eater).

The Amboseli Park and the Kimana Sanctuary are exclusively reserved for fauna conservation and tourism development.

Major issues

The climate change phenomenon has become a reality in this ecosystem. The Maasai populations of Amboseli have been affected by a prolonged drought for over 5 years. The agriculture development on marshes, as well as the creation of strictly protected areas, has limited the access to water sources, for humans as well as for the animals.

The nearby Amboseli National Park covers only 10% of the ecosystem’s total area and of the territory used by the elephants. Large fauna thus also finds itself on “group ranches”, grazing grounds for the herds, which causes man-animal conflicts to increase. Pachyderms destroy crops and devastate the surroundings of natural water springs. Lionesses, who come chase all the way in the villages to devour goats, are killed, as they are a danger to the communities. All this threatens the region’s unique biodiversity.

Committed partners

The French association «Gazelle Harambee» has been present in Kenya for several years now, where it contributes to supporting humanitarian and development projects with respect of the Maasai communities’ culture and traditions. It develops economic projects allowing the local populations to improve their living conditions, while drawing up a strategy to maintain ecosystems and biodiversity conservation. It works with local leaders of the community-based organization, GHK (Kenyan Gazelle Harambee) that manages projects on-site. Their common goal of this partnership is to put in place projects that are rapidly autonomous, sustainable, and can easily be duplicated in other areas.

It also collaborates with the association Ambosely Trust For Elephants, which it assists in wildlife survey. Finally, the officials of the district Ministry of Education office, as well as those from the Ministry of Environment, are involved in the projects and give logistical support.

Real opportunities for change

The natural resources from the water of the four springs will be kept from the elephants with the help of a stone wall and will be reforested; an independent basin, linked by a pipeline will provide water.

The man-animal conflicts will be limited by setting up an electric fence and a system of night lighting (led) to keep predators like lionesses and hyenas away from some exposed villages. This layout, along with the development of income-generating activities which will be set up for local communities (Moringa cultivation, honey production for women), will contribute to supporting the local collectivities’ desire to share their territory and water sources. Two plant nurseries managed by young volunteers will be a tool in training the populations in horticulture, but most importantly, a place of free restocking of the area’s endemic plants for the surrounding communities. The reforestation of this vast area will participate in stabilizing the soils, in fighting the consequences of seasonal drought and in CO2 absorption by the newly grown plants. It will be accompanied by socio-educational training of the area’s populations, in order to introduce an attitude change towards the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources. Environmental education will make of the existent forest resources.

The project

Reduce conflicts between men and animals, while giving an economic, eco-friendly support to the local communities.

Objectives

- Initiate the reforestation by planting 25,000 trees in the midst of schools, next to villages, water sources, and in public places.
- Install crop protection systems in the most exposed areas, along with predator control systems around the affected villages.
- Raise the local populations’ standards of living through crop diversification, by providing the necessary training.
- Teach the populations how to preserve their natural resources and promote education of the young generation through the setting up of 17 school plant nurseries.

Main achievements in 2015

Biodiversity conservation

1. 5,530 trees planted near schools
2. 2 acres of village plantations closed by a metal gate.

Economic development

1. 2 water points for cattle rehabilitated.

Social environment

1. 10 hives granted to the women of the community
2. Training in beekeeping and moringa cultivation for 50 people
3. Locally made protective clothing distributed in the community.
World Natural Heritage, the Ranomafana National Park hosts a density of amphibians 2,000 times higher than in the United States, as well as the Great Bamboo lemur thought to have disappeared in the mid-80s.

At the parc border are some of the poorest human populations on the earth, who do not yet have any other alternative for agriculture than slash and burn...
The site and its biodiversity

The Ranomafana National parc is incredibly rich in biodiversity, hosting 98 species of amphibians and 62 reptile species on 416 square km (in USA 285 and 251 respectively, but on 9,826,675 square km). The villages of Vohitrarivo, Vohimarina and Sahofika, just on the border of the park, have their environment extremely degraded.

Fortunately, one of the first and last plant growing back after the land has been burnt is bamboo - the main food of the Great Bamboo lemur. 150 specimens of the population of this species are found in this degraded habitat, which represents 1/4 of the population.

Major issues

Major issues at stake double when it comes to the park, as the destruction of the forest cover is a real catastrophe. In addition to the plant disappearance, 1/3 of the 115 bird species of the park are in fact strictly forest dwelling, as is the majority of the frogs.

If the human populations remain in absolute poverty (currently at the level of undernourishment), it would be impossible to stop them from further destroying the forest. The re-growth of bamboo (exclusively) after the fire is equally threatened, as the populations have no choice but to burn again the used lands, in hope of harvesting any crops.

Committed partners

The emergency to initiate field actions has been seen by a woman biologist who was in charge of the European captive breeding program to save the Great Bamboo Lemur from extinction. The Bamboo lemur project is a three actor management program, including the NGO she created (HELPSIMIUS), representatives of the three villages and the Ranomafana National Park.

Real opportunities for change

The human populations live in extreme poverty, as the destruction of the habitats generates very low incomes. This site contains some natural products of international interest (the Langoza has been highlighted as Dior’s flagship product), but also adapted crops such as ginger, which could be developed for the local market. Local coordinators of Helpsimus and the Ranomafana National Park have had very enthusiastic feedback from the village communities, which are seeking assistance and are ready to follow an area management plan, which ensures the Great Bamboo lemurs’ conservation.

The project

To help the local communities get out of extreme poverty in order to make the management plan covering the area of the three villages viable, a plan that would allow the habitat conservation required for the Bamboo lemurs.

Objectives

The project objectives would result in a setting up by the scientists and the local population of an area management plan, allowing to intensify agriculture in certain areas, as well as to preserve the areas necessary for the lemurs.

The improvement of agricultural production will be attained especially through the development of ginger and coffee plantations (these products are adapted to the area and bring good income on the local market); the setting up of a storage facility, allowing the farmers to sell their products at best times.

The project will also be in charge of the organisational and infrastructure needs for basic education.

Main achievements in 2015

Biodiversity conservation

1. Ten times more identified great hapalemurs than in 2008
2. 10 great hapalemur groups, gathering 279 individuals, are now monitored
3. 1 new lemur species discovered on site (red-bellied lemur)
4. 6 educators and 3 teachers trained in the creation of awareness campaigns.

Social environment

1. Villagers trained in community grain bank management and in modern vegetable cultivation techniques
2. Local populations made aware of disease prevention and sanitation.
By combining touristic development and sustainable forestry controls, this highly environmentally friendly project is an exciting innovation of forest conservation in Madagascar.

Vohibola is the last coastal forest of the east Madagascar hosting several animal and plant species endemic to the area. This forest requires conservation actions to prevent forest fire and wood smuggling.

By combining touristic development and sustainable forestry controls, this highly environmentally friendly project is an exciting innovation of forest conservation in Madagascar.
The site and its biodiversity

Vohibola, the last block of coastal forest in the entire region, is located on the Malagasy east coast, and hosts a very unique but equally threatened fauna and flora diversity on its 2,000 hectares. The forest part of Vohibola hosts over 450 plant species, of which several endemic ones face immediate extinction, 7 species of lemurs, about 50 species of birds, mostly endemic, reptiles and amphibians 100% endemic in Madagascar. In 2009, a new species of cameleon (Calluma vohibolensis) has even been discovered in this forest.

Major issues

The Vohibola forest has been subject to heavy pressure from the timber exploitation for the economic capital of the east, Toamasina, prior to the intervention of the NGO. This meant no benefit for the local populations. Two thirds of the forest were destroyed by fire. Local poverty, resulting from the absence of economical opportunities in this isolated area, was not allowing to motivate populations in supporting any kind of conservation plan. Several profit-generating activities have been created and the actions carried out have allowed to halt deforestation, and moreover to launch reforestation campaigns. Involvement of the local communities remains fragile and it is crucial to finalize the operation of certain activities and to ensure the sustainability of forestry control by patrol officers from the local community, what this project aims to do.

Committed partners

The NGO Man And the Environment has been present on the Vohibola site for 10 years and has acquired significant knowledge about the local contexts. Local community leaders, which collaborate on projects, have also been the NGO’s partners for several years. The involvement of volunteers with high professional experience (from French electrical and environmental management companies, such as EDF, SPIE, and VEOLIA involved for over 2 years), guarantees the highest degree of accomplishment and technical monitoring.

Real opportunities for change

The solar boat has a unique potential to motivate local communities for their involvement in conservation. It will indeed create incomes through ecotourism, while being a tool for nature conservation officers. A link will therefore be created between local development and environmental conservation needs.

The project

Support local communities’ involvement in biodiversity conservation of Vohibola’s coastal forest through the installment of a pilot solar energy production system.

Objectives

- Finalize the system of electric propulsion of the boat (the hull of which has already been built).
- Organize the boat’s management in order to allow forestry controls’ autonomy by the local conservation officers.
- Install refrigeration units for fish storage and poultry incubators.
- Set up of a system allowing villagers to recharge batteries.
- Create two cooperatives: fishing and small-scale farming.
- An evaluation of the potential to duplicate the model in a similar context.

Main achievements in 2015

Biodiversity conservation
1. Natural and cultural heritage interpretation panels installed by villagers
2. Surveillance patrols with the solar boat.

Economic development
1. Conveyance of tourists and villagers thanks to solar boat.

Social environment
1. Re-launch of additional activities such as the opening of an education centre.

This non-polluting and silent vehicle used for forest patrols could be duplicated in other contexts, where there is a crucial need for income-generating activities for local communities. The concept will allow to meet the development needs of the local communities (electricity need for health center, refrigeration for fish storing, and energy for poultry incubator), while at the same time, allow the forestry patrols to be economically sustainable.

The project will therefore demonstrate that renewable energies can serve both environmental conservation and local development.
The lake ecosystems are increasingly threatened by erosion resulting from slash-and-burn farming and by unregulated tourism development on the island over the last years. The quality of water, which is crucial for both men and animals, is affected.

Mount Passot’s eight crater lakes are home to aquatic fauna that is unique due to Madagascar’s isolation from the African continent, 165 million years ago.
The site and its biodiversity

With a wealth of biodiversity and breathtaking landscapes, Mont-Passot, north of Nosy-Be, is an exceptional site.

It is a volcanic hill strewn by eight small crater lakes. The fish found in these sacred lakes are very special, as Mont-Passot is the only place in the whole world where they can be found. In addition to being endemic to Madagascar, these fish species, which come from two different genus (Paratilapia and Ptychochromis), have remained isolated and have given rise to new sub-species, which are totally endemic to the lakes where they live.

The flora is just as special as 71% of the plant species surveyed on Mont Passot are endemic to Madagascar, two of which specific to the island of Nosy Be. It is also home to a few specimens of a critically endangered lemur (Hapalemur griseus).

Major issues

A large majority of the island’s population relies on these lakes as drinking water source. However, different pressures are increasingly threatening these natural reservoirs and their associated ecosystems.

On one hand, the fragile soils around the craters are under the threat of erosion as a consequence of low-productivity and harmful agricultural practices. On the other hand, the area is subject to extremely high pressures to create new, uncontrolled tourist infrastructures that would spoil the landscape and contribute to increasing pressures on the existing biodiversity.

This could lead to irreversible degradation of this area, especially in terms of water quality, which, in turn, could have significant impacts on human populations, as well as on the flagship species of this exceptional area considered as one of the island’s pearls.

Committed partners

For twelve years now, the Madagascar registered NGO L’Homme et l’Environnement has been working at developing and supporting projects that improve the living conditions of local populations, while preserving the biodiversity and the quality of their environment.

It proposed the establishment of a development plan to regional authorities to integrate conservation and water quality issues of the crater lakes in a development program. In exchange, L’Homme et l’Environnement obtained a 10-year management contract to implement the proposed program.

The NGO collaborates closely with local populations who are affected and aware of short-term issues. They actively collaborate to the review and the rapid implementation of the development plan that will enable them to better manage the area and assert their ancestral rights to the site.

Real opportunities for change

Support should be provided to the development of sustainable plantations (ylang-ylang in this case) using good agricultural practices combined with soil fixation with vetiver to motivate local communities to stop using practices that are harmful to the environment. The outlets and processing subsectors for these two species are already available locally. Securing productive lands should provide local populations with additional incentive to adopt land uses that are compatible with the area’s sustainable development. The measures adopted as a whole should allow for stabilizing, or even improving the physical and chemical quality of the water of several lakes.

The project

Uphold the water’s quality and conserve the unique and endangered biodiversity of the crater lakes of Nosy Be.

Objectives

- Implement a joint development plan, which will allow for developing economic income-generating activities to the benefit of local populations;
- Support the development of ylang-ylang plantations combined with soil fixation using vetiver on the lakeshores;
- Conduct health, education, cultural, and economic development interventions to support the implementation of the local management plan.

Main achievements in 2015

**Biodiversity conservation**

1. Reforestation by planting 11,500 seedlings of forest species
2. Production of 4,500 ylang-ylang seedlings
3. Plantation of nearly 2 linear kilometres of vetiver.

**Economic development**

1. 4 ylang-based products identified and tested
2. Tests carried out on formulation of ylang and clay based cosmetic products
3. 1 study carried out on firewood alternatives.

**Social environment**

1. 198 medical consultations carried out
2. 5 awareness sessions on hygiene and health for 150 people.
Morocco’s argan oil is, nowadays, very popular on the international market nowadays. The argan tree ecosystem is under constant pressure that makes it vulnerable, affecting in turn the communities who make their livelihood from this tree.

Diversification of biodiversity through sustainable exploitation of natural ingredients subsectors such as honey is a way to address both environmental and economic issues in the region.
The site and its biodiversity

The project is implemented in a UNESCO-classified biosphere reserve, namely the argan forest area in the Moroccan region of Souss-Tensift between Essaouira and Agadir. The area is home to the iconic Argania spinosa, an endemic species from which argan oil is produced; an ancestral product traditionally used in Morocco for cosmetic and culinary purposes. Argan forests are an original and unique ecosystem that holds a high cultural and heritage value. Local communities demonstrate strong commitment to the argan tree despite all the constraints associated with its exploitation, whether natural or socio-economic. Historically, argan forests provided honey, produced with care by a bee subspecies (Apis mellifera sahariensis). This species became threatened by anti-locust treatments and by voluntary introduction or transhumance of Tellian bees or “black bees”.

Major issues

The argan forest ecosystem has become highly sensitive due to the loss of biodiversity, the soil degradation and the overexploitation of natural resources. In the past, this forest constituted a dense natural forest in the Mediterranean coastal area. The preservation of this exceptional heritage that represents almost 10% of Morocco’s forest area is crucial for the ecosystem and the rural communities that rely on the Moroccan High Atlas’ resources, particularly women farmers. Argan fruits give an oil that is highly sought after on the national and international markets and the argan forest area is estimated to have shrunk by half over the last century due to increasing pressure resulting from demand and human activities. Maintaining biodiversity in this environment is therefore fundamental to address both environmental and economic issues in the region.

Committed partners

The association Amanar was set up in 2009 under the Moroccan law and supports small farmers to develop local products (argan, honey, cactus, saffron, rose, aromatic and medicinal plants, date palm), and their natural and cultural heritage (namely Berber heritage). The association has been active in the project area for several years. It works in particular with women’s cooperatives producing argan that are committed to developing their natural and cultural heritage.

Real opportunities for change

The project aims to reduce pressure on the argan forest by diversifying the sources of income of argan producers, including through the promotion of beekeeping (training in marketing). Indeed, rural communities in southern Morocco remain poor despite the encouraging development that the argan sector brings for women in the region and honey is one of the very few other business opportunities for these communities. As such, the development of beekeeping will diversify income while reducing pressures on the ecosystem and allowing for replenishing Saharan bee populations.

The project

Develop beekeeping with women involved in the argan tree subsector to increase their income and restore the endangered Saharan bee populations in the Souss-Tensift region.

Project objectives

- Support women who are independent honey producers in the Berber village of Tafdena (Essaouira) and promote conservation of indigenous melliferous plants in the area;
- Explore the possibilities of creating a beekeeping promotion space within the existing commercial structure for argan to benefit women in the village of Meji (Essaouira);
- Develop beekeeping to the benefit of women in the cooperatives of Argamar and Ifrawne N’Lhanna in Taroudant in order to diversify their resources;
- Boost the local economy in the village of Zaouia Nahlia by enhancing the historical and cultural heritage strongly associated with beekeeping.

Main achievements in 2015

Biodiversity conservation
1. Plan for sustainable management of melliferous plants in the area developed
2. Nurseries of melliferous aromatic plants established.

Economic development
1. Market research carried out; 270 women members of cooperatives interested to develop beekeeping activities
2. Equipment necessary for the production of honey purchased.

Social environment
1. 202 women from five cooperatives trained on beekeeping techniques
2. Marketing training provided to beneficiaries to enhance the value of their products.
Because the density of human occupation on the park’s outskirts is extremely high and the need for agricultural land keeps on increasing, conflicts are bound to happen between the wild fauna and the local populations. Faced with a situation that is beyond their control, these populations become increasingly powerless.

Located in the transitional area between the tropical lowlands of India and the Himalaya mountain range, the Bardia National Park – a vast patchwork of forests and grasslands, is the sanctuary of the most charismatic endangered species of Asia.

**HUMAN-ANIMAL CONFLICTS AT THE FOOT OF THE HIMALAYA**

*Innovative solutions towards a better cohabitation*

**NEPAL**
The site and its biodiversity
Located east to the region of Terai, Nepal, the Bardia National Park is one of the largest (100,000 hectares), as well as the least visited parks of the country. Directly connected to the wild fauna reserve of Northern India by natural corridors and the numerous streams that cross it, the park extends from the hilly regions of the north to the valleys and alluvial plains of the south. This exceptional area is home to more than 400 bird species and 53 mammal species. These numbers include numerous endangered species such as the Asian elephant, Indian rhinoceros, tiger, leopard, swamp deer, Sarus crane or the extremely rare Bengal florican. The waters of river Karnali are also home to the Gharial and the Ganges river dolphin.

Major issues
As everywhere else in Terai, the overexploitation of natural resources in Bardia’s region is one of the biggest threats to biodiversity. Due to high population densities, the natural spaces directly adjacent to the park are gradually turned into agricultural lands and even protected areas are subject to heavy pressures, as people use them to gather wood or to fish. This proximity also increases conflicts between human beings and the wild fauna. Cultivated fields are raided by elephants, people are attacked by rhinoceroses, and small livestock are preyed on by leopards and tigers. These conflicts render the villagers’ lives even tougher and fuel negative attitudes towards nature conservation. Tolerance towards animals decreases and illegal activities (poaching and trophies) are developing, owing to the income that they provide to the struggling populations.

Committed partners
Awely is a French NGO specialized in biodiversity conservation, especially the settlement of human-animal conflicts in five countries. For the project’s purposes, it has partnered with the main Nepalese conservation NGO, i.e. the National Trust for Nature Conservation. The population living in the direct surroundings of the Bardia Park is essentially comprised of marginalized farmers from the Tarhu ethnic group and an “inferior” caste, the Dalits. As they farm land located less than 500 meters from the forest’s edge, they are the first victims of animal-caused degradations. At the same time, their religion recommends them to protect these animals. As such, they are willing, in partnership with Awely, to find new solutions that promote both the economic development of their communities and the rational management of these conflicts.

Real opportunities for change
The project plans to proceed in three phases: the first one consists in studying the local communities' influence on their environment and identifying the types and degrees of animal-caused impacts on crops. A mapping showing these pieces of information will allow for determining priority intervention areas, where several solutions will be tested: electric fences, cattle pens, community security system, etc. The second phase will consist in testing alternative and repellent crops adapted to local conditions: test fields will be set up to assess the animals’ reactions to the crops. Concurrently, the agricultural potential of the zone will be assessed (traditional production of essential oils is found in other areas surrounding the Park) and a profitable market research will be conducted. Depending on the results, the third phase will consist in training local communities on the selected crop (nurseries, farming techniques) and processing (distillation) of these new productions.

The project
Support the development of economic activities that contribute to solving human-animal conflicts on the outskirts of the Bardia National Park, improving the local populations’ living conditions, and conserving biodiversity.

Objectives
- Reduce all conflicts in the project area by reducing overexploitation of natural resources;
- Improve the economic situation of the area's households to reduce anthropogenic pressures on the Bardia National Park and its biodiversity;
- Support individuals and families who are victims of animal attacks.

Main achievements in 2015

<table>
<thead>
<tr>
<th>Biodiversity conservation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 1 tree nursery set up for firewood (20,000 seeds planted)</td>
</tr>
<tr>
<td>2. 8,300 trees planted over 4ha in 5 different sites</td>
</tr>
<tr>
<td>3. 15 awareness-raising meetings with 408 villagers</td>
</tr>
<tr>
<td>4. 900kg mint runners and 8,000kg curcuma rhizomes distributed to new farmers</td>
</tr>
<tr>
<td>5. 182 farmers involved in alternative crops (10.4ha).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Economic development</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 1kg of chamomile essential oil produced</td>
</tr>
<tr>
<td>2. 600kg of arvensis mint essential oil produced, a substantial part of which sold to a major French perfumer</td>
</tr>
<tr>
<td>3. 50 farmers involved in a 3 days aromatic plants cultivation training.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Environmental education courses to 181 pupils</td>
</tr>
<tr>
<td>2. 6 training sessions on first aid after animal attacks to 72 beneficiaries</td>
</tr>
<tr>
<td>3. 8 theatre performances on man/animal conflicts viewed by more than 1,600 people.</td>
</tr>
</tbody>
</table>
Nicaragua ranks as the poorest country of America after Haiti. The demographic pressure combined with the increasing needs of a population who has no other option but to exploit natural resources, is threatening the biological integrity of this already highly fragmented space.

**THE FOREST CORRIDOR OF PASO DEL ISTMO**

A frail tie between North and South America

Meeting-point of the northern and southern parts of the continent, this exceptional, twenty-kilometer or so wide area, between the Pacific Ocean and Lake Nicaragua is home to a diversity of landscapes that serve as habitat or migration areas to numerous critically endangered species.
The site and its biodiversity

The Rivas Isthmus, a narrow strip of land between the Pacific Ocean and huge Lake Nicaragua is a patchwork of environments (forests, rivers, lakes, marshes, and mangroves) that are of critical importance for the local populations, as well as the wild fauna because of the water resources it offers. Rivers and marshes are the breeding ground of flagship species such as the Atlantic tarpon or the Tropical gar. The remnants of the forests also ensure the biological connectivity of the northern and southern parts of the continent, as well as the forest continuity, essential to the survival of several mammals, such as the Jaguar, Couger, or Coati. In addition to its exceptional plant diversity, the site is home to several species that are directly threatened by hunting or illegal trade of animals, such as the Spider monkey, the famous Yellow-headed Amazon or the Sabarena Tortoise. Its beaches are also the nesting grounds of four species of sea turtles, which are the object of specific conservation programs.

Major issues

The biological integrity of the corridor is under threat: extensive livestock farming associated with industrial monoculture is accelerating the fragmentation of the coastal forests of Nicaragua. Forty-six percent (46%) of the local population ranks below the poverty threshold and although the large majority of them are landowners, they are forced to sell their land to cope with increasing economic difficulties.

As a result, numerous forests are destroyed, aggravating habitat fragmentation, the loss of biological connectivity, and the isolation of animal populations. Logging, firewood collection, and poaching exacerbate the pressures on ecosystems that are already weakened by the increasing pressure generated by agriculture and mass tourism.

Committed partners

Paso Pacifico is an NGO founded by an American and a Nicaraguan women specialized in the restoration and conservation of the biodiversity on the Pacific coast of Central America.

Paso Pacifico has been working for several years with the local populations and organizations to promote sustainable protection of the environment. This is indeed the case with six village communities of the municipalities of San Juan del Sur and Cardenas, which are located along the two main rivers crossing the Rivas isthmus. Aware of the challenges, especially the extremely short-term degradation of their environment, the populations concerned (approximately 2,000 people from the Mestizo ethnic group) stand ready to participate in the effort to rehabilitate and maintain the forest corridor of Paso del Isthmo.

Real opportunities for change

Sustainable economic solutions have been set up through the development of agricultural productions that promote local plants for the local populations' direct benefit. NGO Paso Pacifico will focus its efforts on providing targeted technical support to new agroforestry practices, setting up nurseries, implementing an appropriate reforestation program, developing aromatic and medicinal plant processing subsectors, and implementing a specific conservation program for the most endangered species. Another priority to promote the long-term restoration and conservation of this exceptional site is to define and formalize a forest corridor development plan in close collaboration with the local populations.

The project

Ensure sustainable conservation of the forest corridor of Paso del Isthmo by securing the local populations’ active involvement and establishing a development plan oriented on biodiversity maintenance and the development of new income-generating activities.

Objectives

- Set up a reforestation program to limit habitat fragmentation and ensure biological connectivity;
- Improve the protection of local animal species by integrating them to the forest corridor preservation program;
- Enhance the value of the local natural resources to the benefit of local communities in conjunction with conservation programs;
- Ensure fair sharing of the benefits derived from the exploitation and promotion of natural resources.

Main achievements in 2015

**Biodiversity conservation**

1. 25,000 trees successfully planted over 38ha
2. 31,260 seedlings planted in nurseries from 42,000 local seeds collected
3. 7 consultation meetings carried out
4. 1,263 spider monkeys identified (stable population)
5. 264 yellow-naped parrots identified (growing population)
6. 29 men and 6 women trained in bio-intensive farming methods.

**Economic development**

1. 1 handbook on the use of cocoa finalized
2. 1 video on the use of balsam edited.

**Social environment**

1. 31 awareness workshops carried out for more than 1,200 children from 9 beneficiary communities.
The huge Amazon forest wherein people have been living for centuries in harmony with Nature is now highly threatened by deforestation. Yet, it still hosts a huge amount of species, of which many are medicinal, and people whose diversity is an asset and a true world heritage for mankind.

In the Veinte de Enero community, the adoption of a new gathering method of the aguaje (*Mauritia Flexuosa*) allows today to produce an oil with extraordinary properties in a sustainable manner.
The site and its biodiversity

The Pacaya-Samiria National Reserve in the province of Loreto is Peru’s biggest national park with its 2,080,000 hectares, or 3% of the Peruvian Amazonia.

It is bordered by two rivers, the Marañon in the north and Ucayali in the south, which when they merge give birth to the mythical Amazon River.

This reserve hosts the most important flora and fauna biodiversity of the Upper Amazon.

Major issues

Over 100,000 Metis and Cocama or Shipibo Indians live along the banks of these wide and easily navigable rivers, the only way to access the Andes for the nearby Iquitos city (400,000 inhabitants).

The temptation is great for the people living along the rivers to exploit the reserve (precious wood, charcoal, fishing, hunting, palm trees and various fruits), which, besides, is difficult to manage, due to its easy access and vast span.

Moreover, some of the villages like Veinte de Enero are located inside the reserve and are struggling to keep management autonomy over these ethnic ancestral territories.

The risk is even more considerable due to the population increase that could lead to poverty at the reserve’s borders and even inside it.

Committed partners

Latitud Sur is an association under Peruvian law that works for the development of the Loreto communities, with full respect of local balance (social, economic, and environmental), in particular by adding value to natural resources and to the local know-how.

The objective is to set up production sectors to attain material and economic self-sufficiency of the local populations, and thus, abandon the abusive exploitation of the forest. Improvement of living conditions of these marginalized populations (an indigenous majority) should go hand in hand with biodiversity conservation.

APRO-VE is an association of aguaje collectors in Veinte de Enero village, which today have become aguaje oil producers with the help of Latitud Sur, in association with the French organization Arutam Zero Deforestation.

Real opportunities for change

The production chain of aguaje oil on site, meaning on the reserve itself, is a true example of local populations’ empowerment, which includes the transfer of technology and training in environmental management. With the support of Latitud Sur and Arutam, the local populations have learned to not cut down palm trees (standing crops, climbing to tree tops), to manage the marsh forest that contains this natural resource, and even to propagate trees (tree nursery). They have also been trained to press the fruit pulp to extract its precious oil (rich in vitamin E and Beta carotene), which is not only edible, but also of interest for the cosmetic industry. The major stake today is to make this chain (which has become a model widely publicized in Peru) economically viable.

The project

The purpose of the project is to clearly illustrate how (in the framework of one of the reserve’s villages) environmental protection can generate incomes, not resulting from deforestation, but through the economic development of an artisanal press, which will produce an oil with a high added value.

Objectives

- Produce important quantities of oil for sale at an attractive price for the Peruvian national market and value derivatives and by-products from the processing of the aguaje.
- Train the village association APRO-VE to produce the best oil, in terms of its quality, profitability and marketing.
- Obtain certification of this oil at a national and international level.
- Gradually empower the community and consider a gradual withdrawal of the associations and institutions.

Main achievements in 2015

Economic development

1. Management plan developed on a 799ha site of natural aguajales
2. Optimization of the production process for aguaje oil based soap production
3. 35 training sessions carried out for 23 women producers to strengthen their capacity in processing and marketing
4. Marketing courses provided to beneficiaries to help them promoting their products.
The classified forest of Sangako is undergoing intensive deforestation, as a result of the surrounding populations’ increasing demand for wood to make charcoal. Yet, amid highly degraded environments, this forest is an extraordinary sanctuary of plants and animals.

The Western Red Colobus is one of the most critically endangered monkeys. Three quarters of the forest galleries of Sangako have been destroyed and the diversity of tree species has been cut by half. As such, it is urgent to preserve these habitats, which shelter some of the last specimens of this species.
The site and its biodiversity

Located south to the Saloum Islands, the Sangako forest extends over 2,140 hectares. Classified in 1936, its conservation status is still relatively acceptable even if it is subject to numerous pressures, as a result of the fact that it is one of the rare wooded areas of the groundnut-producing basin of Central Senegal.

However, for lack of natural regeneration, several endemic plant species are endangered. In addition to the colony of Baboons introduced there, the Green monkey, Patas monkeys, and Galagos, a colony of Western Red Colobuses – one of the primate species at highest risk of extinction of Western Africa - has just been discovered there. As mangrove ecosystems are directly adjacent to the forest, it also is a privileged sanctuary for the area’s fauna and avifauna, which are particularly abundant.

Major issues

As in numerous developing countries, the population of Senegal is still highly dependent on natural resources. The immediate concern of rural communities – 2/3 of which live under the poverty threshold – is to improve their living conditions, even if this entails degrading their environment and jeopardizing the survival of future generations. In 50 years, the edge of the forest has shrunk by 500 km as a result of clearing. Soils are becoming less fertile, erosion is aggravated, and the desert is creeping in.

Local populations do not participate in the management process and in the specific case of the Sangako forest, unless management alternatives are rapidly identified, the lack of means will prevent forest authorities from ensuring sustainable conservation of the forest cover.

Committed partners

Nebeday is a Senegalese association that promotes participatory management of natural resources by and for local populations. Its objective is to help populations protect resources as well as, and above all, promote their value by developing income-generating activities that are respectful of the environment. The association works in the regions of Fatik and Tambacounda, in areas directly linked with Protected Areas.

The communities adjacent to the Sangako forest are aware of its overexploitation and have shown their willingness to earn a living from rational exploitation of forest resources while contributing to reforestation and working at the establishment of sustainable subsectors. Women’s groups represent a major driving force towards this goal.

Real opportunities for change

The first objective is to get the Forest Administration to transfer the management of the Sangako forest to the communities (5,300 inhabitants, 6 villages, and 3 hamlets), by establishing a participatory development plan and defining the natural resource preservation and exploitation rules. Concurrently, Nebeday will focus on the setting up of new income generating activities, namely the development of beekeeping, straw coal making, and the creation of subsectors for products made from moringa and baobab. To ensure long-term conservation of the transferred forest, it is also planned to set up nurseries and reforestation sites and develop ecotourism by creating observation trails.

The project

Protect flagship species and conduct sustainable promotion of the natural resources of the Sangako forest, in close collaboration with local communities.

Objectives

- Ensure financial autonomy of villages on the outskirts of the Sangako forest through income generating activities that are respectful of the environment;
- Ensure sustainable preservation of the Sangako forest by promoting reforestation and alternative fuels, and developing ecotourism.

Main achievements in 2015

Biodiversity conservation
1. Development and management plan implemented in Sangako forest
2. 55,574 harvested plants in 15 village nurseries
3. Firewalls made by 550 people and more than 8ha cleared.

Economic development
1. Operational eco-touristic trail (110 visitors)
2. 821 women grouped in a cooperative and trained through 23 technical workshops
3. 1,560 moringa powder sachets sold for a turnover of 2,500€
4. 51kg of honey collected for a turnover of 1,000€
5. 2,466kg of straw briquettes produced and 1,969kg sold.

Social environment
1. 15 villages sensitized and 14 villages committees implemented.
Encourage women’s entrepreneurship in the Saloum Delta

Southern Fatick region is home to some of the last wooded areas of the groundnut basin in central Senegal. Unsustainable agricultural practices, overgrazing, bush fires and abusive logging have been resulting in environmental degradation and gradual disappearance of many endemic species.

Establishing rational exploitation of natural resources, and developing marketing by and for the benefit of women’s groups will reduce pressure on these areas and on the emblematic species that find their homes there.
The site and its biodiversity

Located along the National Park of the Saloum Delta, the site includes three classified forests (Sangako, Djilor and Keur Sambel) and community forests (Nema Bah), totalling nearly 7,000 hectares. These forest areas are still home to unique flora and fauna that are found nowhere else in West Africa.

In addition to several endangered endemic plant species, they shelter the endangered red colobus (*Simia badius*), the green monkey (*Chlorocebus sabaeus*) and the black duiker (*Cephalophus Niger*). The proximity of mangrove ecosystems located in the outskirts of the forests also make them a favourite refuge for wildlife and birdlife that are particularly abundant in this area: the Spotted Hyena (*Crocuta crocuta*), the Warthog (*Phacochoerus aethiopicus*), the Royal Tern (*Thalasseus maximus*) are some representative examples.

Major issues

As in many developing countries, Senegal’s population is still largely dependent on natural resources. Improving one’s living condition is the immediate concern for rural communities where two thirds of the members live below the poverty line, even if doing so would result in environmental degradation.

Slash and burn farming, extensive farming and bush fires are major plagues for these last forest patches. Soil becomes less fertile, erosion increases and desert gradually settles in. Very often, local people are not involved in the management of these lands. The lack of capacity of the forest authorities makes it impossible to implement conservation initiatives if no economic alternative is provided on the other hand.

Committed partners

Nebeday is a Senegalese NGO that promotes participatory management of natural resources by and for the benefit of local communities.

Its objective is to help people protect resources and to enhance resources’ value by developing environment-friendly income-generating activities.

With the help of Man & Nature, the association has successfully worked on the Sangako classified forest in the Saloum over the last three years. Nebeday supported the formal transfer of forest management to the benefit of 15 surrounding villages (8,000 people), enhanced the value of several non-timber forests products such as straw charcoal, moringa, hibiscus, bouye coffee, honey, etc. and participated in setting up the Jappo Liggey cooperative that groups 850 women and provided them with equipment.

The project and the prospects for change

Neighbouring communities, including women, are aware of overexploitation of the forest and would like to make their livelihood from rational exploitation of the resources by contributing to reforestation and by working on the development of sustainable sub-sectors.

The project aims to encourage the development of women’s entrepreneurship with over 1,200 women, working on two existing sub-sectors that will be strengthened and on two new sectors that will be developed:

1. Straw charcoal and moringa (*Moringa oleifera*). Nebeday developed an innovative technique for charcoal production that uses pyrolysis of bush straw. Collection of straw on firebreaks located on the outskirts of the forests reduces the risk of bush fires and produces an alternative fuel that is earning good reputation. At the same time, the moringa trees planted in the firebreaks and the agro-forest areas provide leaves that are collected and dried to produce a powder that is sold and used mainly for malnutrition control.

2. The culture of nutsedge (*Cyperus esculentus*) will also be explored and agronomic tests will be conducted in view of commercialization to the cosmetics industry. Finally, the project should also confirm whether it is possible to conduct rational and sustainable exploitation of santang bark (*Daniella thurifera*).

The stated objective is to market, over the project’s duration, no less than 600 tons of straw charcoal and 600 kg of moringa powder. In parallel, international opportunities will be sought for the other two products studied.

Main achievements in 2015

*At the time this document was released for printing, the partner NGOs’ first semi-annual reports have not yet reached us.*
The steep-sided valley of the Luangwa River in eastern Zambia is the cradle of the Luangwa South National Park, which is considered as one of the largest sanctuaries for fauna in the world.

However, the park is also known for its large herds of elephants, which frequently come into conflict with villagers, destroying crops and attacking people and property. Still, there are solutions to this...
The site and its biodiversity
Created in 1972, the South Luangwa Park is the second largest protected area in Zambia. The density of animals around the river and its lagoons ranks among the highest in Africa. As the river alters with the seasons, it forms water points that attract over 400 species of birds. The wooded patches of tree savannas and large stretches of prairie blend into a patchwork. Over a hundred mammal species and all large African carnivores are represented there, including the lion, the leopard, the cheetah, the spotted hyena, the black-backed jackal, and the African wild dog. The park is home to one of the highest densities of African hippopotamus and also has an extremely high number of crocodiles. Approximately 5,500 elephants live in the South Luangwa ecosystem.

Major issues
The Lupande game management area, comprised of six chieftainships and over 25,000 villagers living essentially on agriculture, is directly adjacent to the park. Animals regularly cross the park’s “border” since, due to the absence of fencing, the only thing that delineates the area is the river. Elephants also regularly come into conflict with villagers, destroying crops and housings. Trapping and slaughtering are commonly resorted to, to get rid of these troublesome animals. As such, it is essential to develop initiatives that limit conflicts, human population growth, and the increasing pressures on the ecosystem, which act as aggravating factors.

Committed partners
South Luangwa Conservation Society (SLCS) is a nongovernmental organization created in 2003 to contribute to habitat and fauna conservation in the Luangwa National Park. It also encourages community development. It works in full collaboration with wild fauna authorities and supports a team of rangers whose primary activity remains law enforcement and poaching control. Lastly, in addition to actions developed to address problems of conflicts with fauna, SLCS regularly provides care to animals wounded by traps within the park. Local communities living on the outskirts of the park are familiar with SLCS teams and trust them to mitigate the problems linked to the presence of elephants in farmed and settlement areas.

Real opportunities for change
SLCS wishes to use the model developed in consultation with the NGO Awely, one of its collaborators, to limit conflicts in conjunction with villagers. By developing alternative crops that do not attract elephants but have high economic potential, villagers will be able to live in the direct surroundings of the protected area, without suffering the damages that they currently endure. The setting up of innovative tools using chili should enable them to efficiently protect food crops essential to their feeding. The condensed chili sprayer is also a promising device to change the elephants’ behavior on the long term. Tests will also be conducted on the processing of products from alternative crops (ginger and lemongrass) into aromatic brews intended for sale at the region’s hotels under the fair trade scheme. These initiatives will be supported by sensitization activities targeted at rural school students.

The project
Support local communities in the Lupande game area in addressing human-animal conflicts by establishing alternative and income-generating agricultural activities.

Objectives
- Enable villagers and elephants to cohabitate by proposing new techniques that efficiently protect crops;
- Contribute to poverty reduction by proposing crop alternatives to the ones that attract elephants and promoting their processing;
- Implement sensitization activities to promote a positive attitude towards wild fauna and reduce illegal and violent activities such as trapping or poaching.

Main achievements in 2015

Biodiversity conservation
1. Conflict management pilot area implemented
2. 8 watchtowers built and 10 renovated
3. 5 rangers trained in the new chilli-gas-dispensers
4. Decrease of damages caused by animals in community plantations
5. Pupils from 11 schools made aware of environmental issues
6. 15 teachers from 5 schools trained in human/animal conflicts management
7. A theatre play about elephants preservation played in 15 different locations in front of an audience of nearly 3,800 people.

Economic development
1. 100 kg of lemongrass harvested.