When we started Man&Nature 4 years ago, we were driven by several strong convictions:

- Technical, economical and social solutions to prevent degradation of nature in tropical countries already do exist in the field;
- Involved populations have the greatest desire to protect their natural resources, but conservation should derive financial benefit for them;
- Local civil society and young executives have a strong ability to convince and achieve;
- Private companies in Northern Countries, and especially those using natural resources, are ready to get financially involved, if results are predictable and costs are controlled.

In 2014 we supported 14 civil society associations in 12 different countries so that they can mobilize themselves to set up solutions for natural resources protection and biodiversity conservation that could enhance income situation of local populations.

Maisons du Monde allowed us our first steps in 2011 and still supports us to date. 6 other companies have joined us since, and contributed 650,000€ to our 2014 budget.

As is the case for all associations implicated in environmental protection, our main challenge is not only about identifying beautiful and efficient projects - they are plenty! - but mainly about broadening the base of our supporters, convincing new donors, and demonstrating results.

All this confirms our analysis. This positioning has made M&N a respected player among nature conservation stakeholders, with concrete projects providing realistic solutions and strong local impact.

We feel ready to take up this new challenge. Our optimism and passion will lead us to present even better results in the years to come!

Rémi Gouin
Message from the Executive Director

Biodiversity conservation stands as the underlying principle of Man & Nature, and is more and more essential not only for the future of mankind, but also for innovation and sustainability of the industry. Economists are deeply concerned with well-documented evaluations of costs resulting from biodiversity loss and affecting world economy from 2,000 to 6,600 billion USD per year*. Companies and a growing part of the population begin seriously to consider these aspects.

In 2014, the International Union for Nature Conservation (IUCN) presented its work on strategies to involve the private sector. It recommends implication in Net Positive Impact (NPI) strategies, as they not only limit negative impacts from their activities to biodiversity, but also set up methods of intervention with positive impacts.

The Biodiversity Bill, such as presented in France in 2015, defines conditions of access for private companies to genetic resources, and their contribution to benefit-sharing under the Nagoya Protocol.

Man & Nature's reputation is growing, and we intend to keep on leading the way towards stronger synergies between private sector, local communities and biodiversity.

Based on the development of a natural ingredients sector that would be sustainable, traceable and fair. Moreover, all our projects were funded exclusively by the private sector.

On the field, projects undertaken since 2011 have achieved interesting results. Implemented with civil society stakeholders from the South, they show that biodiversity and development can go hand in hand, by setting up realistic management plans that take local background into account.

Working with local NGOs, selected for their effectiveness, also allows to get results at considerably lower costs than those that are current in the field of conservation and development.

Since it was created in 2010, Man & Nature has implemented 25 projects in 14 different countries (5 in South America, 6 in Africa and 3 in Asia).

In 2014, 11 committed projects continued their activities (1 in Burkina Faso, 1 in Cambodia, 2 in Cameroon, 1 in Ghana, 1 in Madagascar, 1 in Nepal, 1 in Peru, 1 in Senegal and 1 in Zambia), and 4 new projects started during the year:

- 1 in Colombia (agriculture, forest and cattle raising for the conservation of Titi Monkey - NGO Envol Vert),
- 1 in Kenya (limit conflicts between Maasai, elephants and lions - NGO Gazelle Harambee)
- 2 in Madagascar (local development to save the Great Bamboo lemur - NGO Helpsimus - and building of a solar boat on the Pangalane Canal - NGO Man and the Environment)

All these projects are displayed on the world map on page 12, and more detailed information can be found in the following pages.

In 2014, Man & Nature also carried out a small project funded by the French Embassy in Cameroon: identification of plants to be valorised under the Nagoya Protocole and its benefit-sharing process.

Two new companies got committed in 2014, Comeca and Pure Trade, alongside an individual donor, Luis Talavera.
2014 in figures

Fundraising reached 643,000€ in 2014, slightly below the level of 2013.

Maisons du Monde contributed 279,000€ (43% of the total). Our support to projects in the field increased by 12% to reach 428,000€. General expenses are kept to a minimum: no office, very little equipment, limited staff, temporary salary support from the State, volunteer work of board members.

Man Nature’s financial position is healthy, with net assets of 227,830€ as at December 31, 2014*.

*Financial statements audited by Michel BONI, External Auditor

Access Man & Nature’s website
Maisons du Monde pursued its exemplary commitment allowing Man & Nature to start up projects that may, down the line, be of interest to other private partners. That is what the "Kick Start Project" is all about.

Furthermore, Man & Nature implements specific projects, upon request of companies that have worked out a specific approach for their sponsorship's actions.

- 7 are supported by Maisons du Monde
- 3 by Chanel Parfums Beauté
- 1 by Dessange International
- 1 by Mane Foundation
- 1 by Technico Flor
- 1 by Pure Trade
- 1 by Comeca

In 2014 Man & Nature supported 15 projects.
If they were just a few success by Man & Nature and its partners to keep in mind for 2014, its would be :

**In Peru** with Arutam association, Aguaje oil sector was consolidated. This endemic palm tree is now sustainably harvested thanks to Man & Nature’s support, while it was in the past cut for gathering nuts. Processing techniques are now managed and producers have achieved financial autonomy. Although international market is still difficult to mobilise, the domestic market absorbs 100% of the production ;

**In Cameroon**, with Erudef association, after 3 years of intervention in local communities and implementation of income-generating activities, resistance to the protection of the Cross River Gorilla has gradually decreased, and Tofala Sanctuary was formally established by the government ;

**In Burkina Faso**, with Afaudeb association, as part of setting up community conservation areas, shea butter women producer groups have achieved an increased turnover by processing raw materials (that are usually exported) into soap fragrances to be sold on local markets ;

Still **in Cameroon**, within the framework of a pilot project undertaken by Man & Nature, a first stage of the benefit-sharing process (Nagoya Protocol) has been completed through the signing of a Memorandum of Understanding between a French cosmetics company and the Government of Cameroon. This agreement covers research use of Echinops giganteus’ genetic material, a giant thistle with interesting olfactory properties.

**In Nepal**, with Awely association, the acquisition of a still for mint and chamomile products processing as repellent natural barriers against big game coming from Bardia National Park (elephants and rhinos) will change the lives of local communities. Less human / animal conflicts, and more revenue for beneficiary households : the target is achieved for this project that has been carried out for the last two years !

**In Cambodia**, with Poh Kao association, despite the increase in illegal logging of precious woods and related pressures, the project will end up in 2015 and will meet expected results. An identification work of the traditional knowledge of the Virachey forest communities was carried out, and a book should be released soon by the NGO.
In 2014, Man & Nature’s staff remains small, not only for financial reasons but also because our projects aim to show off players in the field and their respective NGOs.

Man & Nature Chairman of the Board, Rémi Gouin, has continued to provide his great field experience, his knowledge of biodiversity entities and his network, allowing us to identify reliable NGOs from the South that are able to carry out projects.

Executive direction is under the responsibility of Olivier Behra. In particular, he is responsible for fundraising, identifying new projects and communication programmes.

Eric Belvaux is in charge of programs and projects coordination. Eric is an international expert in natural resources management, biodiversity conservation and community development.

At year end, Man & Nature recruited Inès Lazghab to be in charge of projects monitoring and valorisation. Inès was graduated in environmental law and international projects management.

Our reporting system was upgraded in 2014 so that it becomes more practical and strict. It also responds to a growing demand of the private sector in terms of financial and technical monitoring of supported projects. The system is still simple and convenient. It asks beneficiary NGOs to express from the start objectives, expected results and key indicators for measuring impact and follow-up of activities.

Partner companies’ projects managers can now be regularly informed of percentage of completion, assess results and impacts and therefore can present supported programs more easily to their customers and associates.
To ensure biodiversity conservation and the services it provides to mankind, Man & Nature’s communication programmes must:

- Demonstrate that simplistic protection approaches are not enough, and that economic, social and environmental constraints have to be taken into account;
- Promote a collective vision that biodiversity should be enhanced and sustainably managed by all stakeholders, from local communities in the South to private companies in the North;
- Report regularly on projects successes (but also sometimes failures...) to financial partners, their associates and the general public.

Communication strategy is based on Man & Nature's bilingual website (www.manandnature.org), and an increased presence on social networks.

In 2014, we started to implement specific newsletters, especially designed for partner companies' staff in order that they can keep up to date with the involvement of their company in conserving biodiversity. The layout is appealing and simple, and these newsletters complement the regular issue of news on the website.
As part of its support to its partner companies’ CSR policies, and based on experiences with Maisons du Monde employees (solidarity leaves), a study was carried out at the end of the year in order to assess the opportunity to allow the concept to be expanded to other partners, through discovery tours managed by independent tour operators.

In April 2015 Man & Nature will take the starring role of “Ô bout du monde”, a series broadcast on France Ô channel. A first shooting was done at the end of 2014 about three projects supported by the association in Madagascar. This TV broadcast was designed to be interactive both with the website and with a crowdfunding platform, and will therefore allow viewers to instantaneously support specific field projects.

Finally, Man & Nature has been involved, directly or indirectly, in working groups aggregating different private stakeholders, such as "Natural Ressources Stewardship Circle", "Clinton Global Initiative" and, more recently, "Responsible Ecosystem Sourcing Platform".
THE FOREST CORRIDOR OF PASO DEL ISTMO (p. 35) A frail tie between North and South America

SAVE THE TITI MONKEY THROUGH THE BREADNUT TREE (p. 21) A system combining agriculture, forest and cattle raising for the conservation of the last specimens of this species

THE KWABRE TRANSBORDER COMMUNITY-MANAGED RESERVE (p. 23) A final attempt to save three African primates from extinction

PRESERVATION THROUGH PRODUCTION IN THE PERUVIAN AMAZON (p. 37) Change the gathering method for a sustainable production of the aguaje oil

INNOVATIVE SOLUTIONS TO BETTER PROTECT THE AFRICAN MEGAFANA (p. 13) Village hunting areas combining production and conservation

A SANCTUARY TO SAVE THE CROSS RIVER GORILLAS (p. 17) Palm oil to conserve a unique biodiversity

AN EXEMPLARY NORTH-SOUTH PARTNERSHIP (p. 19) The perfume industry, a driving force for development

RECONCILING CONSERVATION AND DEVELOPMENT IN THE LUANGWA VALLEY (p. 41) How can ginger, lemongrass, and chili come to the rescue?

INNOVATIVE SOLUTIONS TO BETTER PROTECT THE SACRED LAKES OF NOSY BE (p. 27) Promoting economic alternatives to limit erosion and preserve water quality

HUMAN-ANIMAL CONFLICTS AT THE FOOT OF THE HIMALAYA (p. 33) Innovative solutions towards a better cohabitation

THE MAASAI, ELEPHANTS, AND LIONS (p. 25) Support the development of the local populations to keep their harmony with the big game

TIGERS AND MEN (p. 15) Promoting a conservation model that respects the interests of all parties

YLANG YLANG FLOWERS TO PROTECT THE SACRED LAKES OF NOSY BE (p. 27) Promoting economic alternatives to limit erosion and preserve water quality

LEMURS OUTSIDE OF THE PARK (p. 29) Support local development to save the Great Bamboo lemur

THE SOLAR BOAT FOR BIODIVERSITY (p. 31) A locally managed tourism to ensure sustainable forestry controls
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 2014

Biodiversity conservation

- 43 boundary posts and 7 awareness panels were installed in Village Hunting Areas
- 6 management committees are operating to ensure supervision of the Hunting Areas
- 1 biodiversity conservation awareness campaign was carried out and affected 700 individuals from 6 different Village Hunting Areas

Economic development

- Women producers groups have made a 6 month turnover of 2,400€ from Shea-butter and soaps sale
- 98 beekeepers were trained in honey production techniques
- 18 women groups have been equipped with roasters and improved stoves
- 48 beehives were granted to 16 beneficiaries; 75% of these hives have been colonized and 249kg of honey have been sold

Social environment

- 5 literacy centres (writing and numeracy) for 180 beneficiary women
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 gathering 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 Siam 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, gathering of non-timber 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 gathering 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 Sai – 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 2014

Biodiversity conservation

50 meetings to support the proper regular functioning of NRMC
54 environmental education workshops for 200 schoolchildren were carried out
950 villagers have participated in a biodiversity awareness event

Economic and product sectors development

Seeds were distributed to 57 beneficiaries and 9,734Kg of rice were harvested (self-consumption)
58 households have planted 19.25Ha of vegetables in their family gardens, and have harvested 2,166Kg
Sale of distributed pigs and chickens keep on producing revenues : an average of 336 USD per village.

Social environment

4 community houses have been built
28 individuals have benefited from training in medicinal properties of plants in the forest
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, gathering 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 raising awareness among the adults.
- Make village organizations responsible for action implementation.

Main achievements in 2014

Biodiversity conservation

- The Tofala Sanctuary (THWS) has been created by decree of the Prime Minister
- 45 individuals from 10 forest management village committees have benefited from a training workshop
- 15 teachers have been trained in new forms of environmental education
- 2,000 schoolchildren have been made aware of biodiversity conservation issues
- 16 radio broadcasts and 2 conferences have been held to promote biodiversity conservation

Economic and product sectors development

- 4 new tree nurseries have been planted, with 98,952 seeds collected (which is 23Kg)
- 5,000 agroforestry trees have been planted around degraded forest
- 3,800 trees have been transplanted in catchment areas to protect watering points
- 8,300 species of wild mango and cola have been transplanted in Tofala buffer zones
- 30 pigs and 35 beehives have been granted after update training sessions

Full cost: 176,000 euros
Duration: 3 years
AN EXEMPLARY NORTH-SOUTH PARTNERSHIP

The perfume industry, a driving force for development

The third highest mountain of Cameroon, Mount Bamboutos is home to a unique biodiversity as well as to a plant with a promising potential.

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

ERuDeF 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 2014

Biodiversity conservation
- Creation of a community forest on a high-risk site (landslide)
- Creation of a tree nursery and reforestation on a 5 Ha surface area
- Zone mapping to identify strategic water resources

Economic development
- Creation of the MoBECoS (Mount Bamboutos Echinops Co-operative Society)
- 60 cooperators were trained in governance and management
- Continuation of culture tests for Echinops gignateus
- Echinops root-digging and end of the research phase
- Preparation and training of cooperators before the signing of trade agreements
- 15 beneficiaries were granted 150 beehives that all have been colonized

Full cost: 84,000 euros
Duration: 2 years
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 1000 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 Apasartesanias (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.

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 2014

Biodiversity conservation
- Mapping of the project zone and census survey of breadnut trees in the corridor
- Setting up of a 6,000 seedlings capacity tree nursery
- 8,000 seeds were collected; ongoing cultivation of 1,300 breadnut trees, 10 fruit trees species and 10 endemic tree species

Economic development
- 1 scientific survey on breadnut tree was carried on
- 18 farmers have benefited from 2 training sessions in tree nurseries management, planting and agroforestry principles and practices

Social environment
- Tasting session of food products made from breadnut
- Training session in nut flour production
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 KWABRE TRANSBORDER COMMUNITY-MANAGED RESERVE
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 roloway), 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 2014

Biodiversity conservation

- 2,600 individuals from 13 different villages made aware of the benefits of creating Community Resources Management Committees (CRMC) and a Community Resource Management Area (CREMA)
- Creation, delimitation and mapping of 12 CRMCs and 1 CREMA
- Training sessions for 32 CRMCs members and 16 CREMA executive committee members
- 38 eco-guards have been trained, and 128 patrols have been set up

Economic development

- 36 individuals have received 4 agro-forestry training sessions
- 5,000 seedlings have been produced and planted
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.

Support the development of the local populations to keep their harmony with the big game.
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 Amboseli 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 3000 children concerned a link between their families and the new habits to develop to fight desertification.

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 2014

Biodiversity conservation
- 455 trees have been planted in 17 farms and around a water source
- Building of 2 water sources for wild fauna
- 10 villages have been equipped with lighting systems (leds) against lions and predators

Economic development
- 2 water sources for livestock have been rehabilitated

Social environment
- 636 individuals were made aware of the use of improved woodstoves
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.

YLANG YLANG FLOWERS TO PROTECT THE SACRED LAKES OF NOSY BE

Promoting economic alternatives to limit erosion and preserve water quality
**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 2014**

**Biodiversity conservation**

- 1 site layout and management plan has been finalised and is being validated by forest administration
- 10 management committee members have been trained in biodiversity knowledge and forest management
- 11,400 seedlings have been produced for degraded forest restoration, firewood for stills, and fruit trees
- 10Ha of degraded areas have been restored and maintained

**Economic development**

- 10,800 fruit trees and ylang trees seedlings have been distributed to villagers
- 55 individuals have been trained in organic production, ylang processing and retail sale of essential oils
- 3 ylang-based tourism products are available for sale on the theme “Nosy-Be, Fragrant Island”
- A diagnosis has been carried out on improving energy efficiency of stills
- 3 distillers have been trained in improved production and process of essential oils

**Social environment**

- 320 medical consultations have been carried out and a medical permanence is assured in remote areas
- 200 individuals have attended 7 awareness sessions on prevention of STDs, hygiene, food, water quality
- 4 teachers have been trained to improve educational outcomes
- 1 primary school has been rehabilitated and has been furnished with books and education materials
World Natural Heritage, the Ranomafana National Park hosts a density of amphibians 2000 times higher than in the United States, as well as the Great Bamboo lemur thought to have disappeared in the mid-80s.

At the park 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 park 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 lemur’s conservation.

**The project**

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**

- Find a balance between the needs of men and those of lemurs so that local communities and wildlife harmoniously coexist by supporting ongoing research program on the area (eco-anthropological and socio-economic studies), by raising awareness and educating local people (support of primary school education for children);
- Increase the standard of living of local people by supporting actions securing products of crops (construction of a silo, distribution of seeds) and improving yields (training), and by developing new income-generating activities (coffee and ginger);
- Improve the living conditions of local populations by developing infrastructures (bridge allowing children from one village to go to school during the rainy season) and raising awareness of hygiene in the villages (sanitation training and construction of latrines).

**Main achievements in 2014**

**Biodiversity conservation**

- 12 equipped guards are in charge of the monitoring of Great Bamboo lemurs (IUCN Red List): in 2014, 250 individuals divided into 10 groups have been logged, and for over 50 births
- 500 individuals from 42 villages have attended an awareness operation called “Simus Festival”

**Economic development**

- 1 agronomic survey has been carried out on improving rice cultivation, livestock and fish farming development

**Social environment**

- A third school has been supported and school supplies have been distributed to 439 children from 4 villages
- 1 community grain bank and 2 latrines have been built
- 1 training in hygiene and health practices has been carried out
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.

A locally managed tourism to ensure sustainable forestry controls

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.

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 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 2014

- Biodiversity conservation: Resumption of monitoring patrol activities with the solar boat
- Economic development: Completion of the construction and commissioning of the solar boat
- Tourists transportation: Meetings are carried out to set up the way the unit will be run
- Social environment:
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.
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 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.

HUMAN-ANIMAL CONFLICTS AT THE FOOT OF THE HIMALAYA

Full cost : 65,000 euros
Duration : 3 years

Biodiversity conservation
406 children from 8 schools have benefited from environmental education classes
438 people have been trained in reducing human-animal conflicts and forest sustainable management
More than 1,000 people have attended 3 theatrical performances on the theme of human-animal conflicts
19 village groups are in charge of maintaining and repairing the electric fence to restrict invasion from elephants

Economic and product sectors development
1 double-tank still has been installed for aromatic plants transformation
3 species of fast-growing trees have been selected for firewood for stils
Creation of a tree nursery
400Kg of mint essential oil have been produced and sold 10€ a litre, 10Kg of basil seeds have been harvested
218 farmers have been trained in aromatic plants cultivation
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.

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.

A frail tie between North and South America

THE FOREST CORRIDOR OF PASO DEL ISTMO

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 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, Cougar, 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 Istmo.

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 Istmo 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 2014

Biodiversity conservation

- 15 studies have been carried out on communities’ environmental perception
- Layout plans of the 2 concerned watersheds have been finalised
- A mapping has been carried out for a concerted use of the land
- 25,000 seedlings have been used to reforest 26Ha and replenish 11Ha
- Ecologic monitoring of the corridor is effective and 33 out-grower farming contracts have been signed

Economic development

- 1 handbook on agro-forestry has been published and distributed
- 2 handbooks on exploitation of Basalm and Aceituno have been produced
- 1Ha of hibiscus test-plantation have been made
- 1 partnership has been initiated with a private company producing extracts and essential oils

Social environment

- 250 junior rangers have been recruited and trained in schools
- Educational modules have been produced and field trips have been organised
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.

Change the gathering method for a sustainable production of the aguaje oil.
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 Métis 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 2014

Economic and product sectors development

Local communities have been trained in soap production and marketing

Diversification of aguaje oil based product range

Development of soap production; economic self-reliance is achieved

Growing local demand: 734 soaps have been sold for a turnover of 1,200 USD

Aguaje vegetal oil sales have generated 2,600 USD, and the turnover achieved by local producers from the whole product range (sunscreen, massage oil, anti-aging cream, oils and soaps) was 4,300 USD
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 2014

**Biodiversity conservation**
- Image bank of 50 terrestrial pictures, 14 aerial pictures and 4 maps
- 150 schoolchildren made aware of environmental issues
- 246 people have participated in building firewalls and clearing more than 6Ha of land
- 28 eco-guard (2 per village) are equipped and operating
- 11 tree nurseries are operating and homes of 14,226 seedlings;
- 22,000 seedlings of various species have been used for reforestation
- 2 wells have been drilled for tree nurseries’ maintenance

**Economic and product sectors development**
- 410 people from women groups have benefited from 13 training sessions in transformation and marketing techniques
- Sales in 2014 were: 424 moringa powder packets, 70 honey pots, 178 “Bouye” coffee packets, 212 jam jars, 2,306Kg of strawcoal; altogether, the turnover was of about 2,600€.

**Social environment**
- 821 women created the association “Jappo Liggey”
- 1 Women’s centre has been built
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... How can ginger, lemongrass, and chili come to the rescue?
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 cohabit 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 2014

**Biodiversity conservation**

Creation of a pilot area for conflicts management in order to achieve direct involvement of communities in monitoring the area. 74 farmers have been trained in conflict prevention

150 farmers have built 12 watchtowers

Decrease of the damage made by animals in communities plantations

**Economic and product sectors development**

98 farmers (58 of them being women) have been trained in pepper cultivation and produced 4,216Kg of pepper (3,630Kg have been sold to a local company at a price of 1.30 USD per Kg)

Tests have been carried out on lemongrass, ginger and curcuma for aromatic tea production; 3 farmers have been identified to start up cultivation

3 grain stores have been built to store and protect farmers’ corn