MADAGASCAR

MINISTRY FOR THE ENVIRONMENT, WATER AND FORESTS, AND TOURISM

TERMINAL EVALUATION

Community based and Participatory Conservation of Biodiversity in the Forest Corridor of Anjozorobe

PROJECT MAG/03/G31/A/1G/72

Final Version

Antananarivo, March - April 2008

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LIST OF ACRONYMS

ADER	*Agence de Développement pour l'Électrification Rurale* (Development Agency for Rural Electrification)
ADRA	Adventist Development Relief Agency
ANGAP	*Association Nationale de Gestion des Aires Protégées*
CEEF	*Cantonnement chargé de l'Environnement, des Eaux et Forêts* (Environment, Water, and Forest Section)
CIREEF	*Circonscription de l'Environnement, des Eaux et Forêts* (Environment, Water, and Forest District)
CEPF	Critical Ecosystem Partnership Fund
COAP	*Code des Aires Protégées* (Code of Protected Areas)
CRIF	*Centre de Ressources en Information Foncière* (Resource Center for Information on Land)
DGEEF	*Direction Générale de l'Environnement, des Eaux et Forêts* (Environment, Water and Forest Department
DREEFT	*Direction Régionale de l'Environnement, des Eaux et Forêts et du Tourisme* (Environment, Water and Forest, and Tourism Regional Department)
EPIII	Environmental Program Phase III
FID	*Fonds d'Intervention pour le Développement de la BM* (WB Intervention Development Assistance)
GCF	*Gestion Contractualisée des Forêts* (Contract-based Forest Management)
GEF	Global Environment Facility
GELOSE	*Gestion Locale Sécurisée* (Local and Secured Management)
GIS	Geographical Information System
IGA	Income-generating activity
IUCN	International Union for Conservation of Nature
KASTI	Committee for forest and environment
MBG	Missouri Botanical Garden
MEEFT	*Ministère de l'Environnement, des Eaux et Forêts et du Tourisme* (Ministry of Environment, Water and Forest, and Tourism)
MPrDAT	*Ministère auprès de la Présidence chargé de la Décentralisation et de l'Aménagement du Territoire* (Ministry under the Presidency for Decentralization and Land Planning)
ONTM	*Office National du Tourisme de Madagascar* (Madagascar Tourism Office)
NGO	Non-Governmental Organization
PAP	Project Affected Population
PLOF	*Plan Local d'Occupation Foncière* (Local Land Occupation Plan)
PNF	*Programme National Foncier* (National Program relating to Land Ownership)
POIC	Public Organization for Inter commune Cooperation
MPAS	Madagascar Protected Area System
UNDP	United Nations Development Program
UNESCO	United Nations Education, Science, and Culture Organization
VOI	Local base communities
WB	World Bank
WTO	World Tourism Organization
WWF	World Wildlife Fund for Nature

SUMMARY

The Project for the Community based and Participatory Conservation of Biodiversity in the Forest Corridor of Anjozorobe (MAG/03/G31/A/1G/72), planned over 4 years, was supported by UNDP and GEF. This report provides the findings of the terminal evaluation for this project. The project executing agency was the Ministry for Environment, Water and Forests, and Tourism, which commissioned its implementation to Fanamby, a national NGO, in partnership with the international NGO, WWF.

The project objective is to conserve and develop the Anjozorobe – Angavo forest corridor habitats and biodiversity, in partnership with, and to the advantage of, women and men living there.

Six expected results are proposed in the project document:

R1. A reliable and updated database, including socio-economic and ecological data on the forest corridor, to be used as a decision-making tool by local and regional authorities,

R2. Participatory development of a Protected Area as a model for other regions,

R3. An adaptable model of a three-level participatory management plan for natural resources to be set up and made operational,

R4. A strategic plan for land tenure security and for controlling slash and burn agriculture practices developed and tested in at least 15 *fokontany*,

R5. A taxation system model developed and tested to generate long term incomes to finance the structures for resource management in the Protected Area to be established and tested,

R6. Developed and tested sustainable harvesting techniques, alternative income-generating activities and sustainable intensive agriculture.

The project is guided by a comprehensive view of the corridor and its peripheral area, including the area in which land use and population activities influence the dynamics of the forest corridor ecosystem. The surface area of the intervention zone is 92,500 ha including the forest that covers 28,000 ha. It touches 2 regions (Analamanga and Alaotra–Mangoro), 3 districts (Manjakandriana, Moramanga and Anjozorobe), and 40 *fokontany* within 14 communes. Approximately 30,000 people live in these 40 *fokontany*. The project is dealing directly with 1,100 households for planning and development activities, which amounts to approximately 6,000 people (20% of total population), who are therefore likely to be under the influence of the project impacts, positive or negative.

The approach focused on local communities, and water supply, as a forest ecological service, was the major issue related to community livelihoods.

The *fokontany* is considered the most appropriate intervention level for planning spatial management using a participatory approach and for targeting the communities that are directly affected by the intervention. Successful strategies and actions conducted with communities and administrative departments were expanded to the whole territory, so as to be in a position to protect the Anjozorobe–Angavo forest as a whole, and to have a measurable impact on the ground.

The project followed a participatory and inclusive approach to achieve the design of the management and development plan for the whole territory, viewed as a harmonized productive landscape integrating the local communities' development plans and the forest corridor protection. The development of this territory includes the creation of a protected area within which communities carry on activities that are compatible with the protected area objectives.

Planning the development and management of the protected area and its periphery is based on biological, economic, and social data available through an information system which was developed to be accessible to the parties involved at all levels.

The management of the peripheral productive area relies on the following:

i) Land security and control of slash and burn agriculture practices,

ii) Development and implementation of an adaptable taxation system for generating long term income to finance the Protected Area participatory management structure, and

iii) Increased agricultural production, development of high added-value organic and fair-trade labelled products and community tourism as alternative income generating activities.

The management of natural resources over the whole territory is conducted in a participatory way through setting up an adaptable three-level plan model: the local level for planning land use, for implementing local management plans and resource monitoring, the commune and inter-commune level for conflict management and control of resource use, and the territory level for harmonizing measures taken for the whole territory.

Progress achieved

The progress achieved towards the expected results includes the following achievements:

The protected area is set up and its management was delegated to the Malagasy NGO Fanamby; it has not yet been gazetted but achieving this only requires technical steps which should not meet with any obstacle. Taking into account that the protected area is part of a larger mosaic landscape and that the protected area and activities carried out around it exert a strong reciprocal influence, the project sought to implement a viable conservation plan based on the sustainable management of the larger lanscape which includes the core (strict preservation) area, and a variety of other land and resource uses. Thus, the protected area integrates a forest corridor and its periphery within which local communities carry out productive or touristic activities which are compatible with the protected area objectives.

The project is following the principle that the establishment and management of the protected area must not be done at the expense of the poor rural communities within the area[1]. This project's participatory and inclusive methodology allowed taking into account local communities traditional rights over resources, empowering them to participate in management decisions related to their land, and taking steps towards compensating them for opportunity costs related to loss of access to land and resources.

The project focused on the economic sectors that had, or were likely to have, a reciprocal influence on biodiversity and ecosystem services outside the protected area, i.e. agriculture, forestry and tourism, the former two being directly related to local communities' livelihood before the project intervention. The development of income-generating activities involving the production, processing and marketing of organic labelled rice and ginger, and community ecotourism – with the support of the private sector for capacity building and identification of markets – offers extremely encouraging perspectives, both in terms of compensation for local communities for the opportunity costs related to a restricted access to land and resources, and in terms of guarantee of the integration of environnemental and biodiversity conservation concerns in farming and tourism practices, since their added value is dependent on it.

However, the threats to the sustainability of these encouraging results identified at the time of the mid-term evaluation still exist, as the benefits due to alternative income generating activities developed by the project and the improvement of ecological services are not yet sufficiently perceived by most of the local communities and do not necessarily benefit the populations that bear the opportunity costs related to setting up the protected area. Also, the revenues generated do not contribute directly to the management of the protected area, and the benefits attributable to the development of added-value products are not always clearly linked with biodiversity conservation.

The effective integration of biodiversity conservation in the productive landscape surrounding the Anjozorobe – Angavo forest corridor rests on the unequivocal understanding of the relationship between the forest corridor preservation and the benefits that populations can get from it, and the association of environmental preservation requirements to the benefit-generating activities, that is the development of activities which benefits depend on the preservation of the natural environment integrity, such as organic agriculture and ecotourism. Currently, the fact that one of the perceived benefits is an increase in water supply presents a certain risk because the increase in water flows observed by the population might not continue when fires and clearings will be really reduced, which might then reduce local communities motivation.

Land occupation within the protected area is stabilized according to the specifications of the provisional protection order and recorded through a process to secure land tenure which allowed legitimating land plot delimitations and identification of the landowners, with the use of high

[1] Recommendation 5.29 on protected areas and poverty of the IUCN Vth World Parks Congress: Protected area establishment and management should contribute to poverty reduction at the local level, and at the very minimum must not contribute or exacerbate poverty.

resolution satellite images. Local communities in 39 of the 40 *fokontany* collaborate actively in the elaboration of the management and development plans of their *fokontany* on the basis of this delimitation, their current and future needs, availability of resources, and compliance with legal texts in force. The completion of these plans, delayed due to a succession of political campaigns in 2006 and 2007, is also a matter of technical and validation steps with communities. The delay in the elaboration of the *fokontany* management plans is a matter of concern for communities as it keeps them in a state of uncertainty regarding the land plots that they may use for cultivation.

The 4 years of the project allowed mobilizing and building the capacities of communities, local authorities and administrative agents in charge of forest management, so that pressures on the forest corridor due to fires, illegal logging and clearing are reduced by comparaison with forests outside the protected area. An attitudinal change towards taking ownership over the forest by stakeholders is observed at all levels, including local communities, regional and district authorities, mayors, heads of communities and technical services.

A taxation system, implemented for many products and services, provides revenues to the various protected area management levels to contribute to the sustainability of this structure and its operations, except at the level of the *fokontany* which is nevertheless the core element which ensures the ground implementation of the natural resources sustainable management.

A database incorporates biological, physical and socioeconomic data for the protected area. A high resolution satellite image enabled the identification of land plots with communities and serves as a basis for mapping and elaborating development and management plans. The database and maps are used by administrative partners, international NGOs, concerned MEEFT staff, national organizations and institutions, national sector-based projects, and the private sector for the development of organic farming. These tools enabled mayors to communicate intervention priorities to representatives of ministries, national sector-based projects, and donors at the time of mayors' monthly meetings in each district.

A protocol for the ecological monitoring provides useful information for managing the protected area and its resources: it allows monitoring the evolution of pressures (fires, logging, and illegal exploitation) and lemur and freshwater crayfish distribution and abundance (with a view to resume the exploitation of the latter).

A rural newspaper is published through a network of local volunteer informants from all *fokontany* in the communes of the Eastern POIC, to give support to and educate local communities to enable them to follow all project interventions, and to support and stimulate information exchange between the community and the protected area technical committee.

This whole system rests on a development democratization approach, eminently participatory, that requires, to be effective, a sequence of information, awarenes-raising, capacity development and support stages, to ensure that all actors in this vast work in progress, in particular local communities, are able to continue to play their role on their own beyond the project life. This final evaluation is showing that the project allowed putting in place a system, which is in accordance with the expected results, but that an additional accompanying phase is necessary to get it to function on its own.

Overall assessment of the level of achievement of the project objective and results is summarized in the following table:

Result level	**Assessment**
Goal	S
Result 1	S
Result 2	S
Result 3	S
Result 4	S
Result 5	S
Result 6	S
Overall project assessment	**S**

1 INTRODUCTION

1.1 Objectives of the terminal evaluation

The project started in March 2004 and was implemented over 4 years. In conformity with GEF-UNDP policies and procedures related to monitoring and evaluation, all medium and full size projects must be subjected to an independent terminal evaluation upon completion. This evaluation objective is to assess the relevance, performance and success of the project. The first indications of potential impacts and the sustainability of outcomes are examined as well as the contribution to capacity development and global environmental goals. The evaluation identifies lessons learned and makes recommendations to improve the design and implementation of other GEF-UNDP projects.

GEF support responds to the biodiversity conservation focal area and to the strategic priority #2 which is to mainstream biodiversity into production sectors and landscapes. However, the project established a protected area, thus contributing also the the strategic priority #1.

Following the terms of reference, the final evaluation must analyze the project achievements and progress towards its objectives as stated in the project document while considering the factors which might have facilitated or hampered the attainment of objectives and expected results. This is done on the basis of the indicators stated in the project document and according to the midterm evaluation recommendations.

The evaluation must also analyze to what extent the project contributed to:

- putting mechanisms in place to ensure that biodiversity management objectives are being integrated into production sector activities in the Anjozorobe-Angavo Forest Corridor;
- stemming the rate of loss of forests and constituent biodiversity at the project site;
- a stronger network of biodiversity institutions;
- realising national policy objective.

The evaluation examines the implementation approach, the country ownership, stakeholder's participation and benefits accrued, sustainability, replication approach, financial planning, cost effectiveness and the monitoring-evaluation system, following the comments and recommendations made for the midterm evaluation.

Detailed terms of reference are presented in the Annex 2.

1.2 Methodology

An appraisal score is attributed to each result depending on the level of achievement and according to the following scale: highly satisfactory, satisfactory, marginally satisfactory, marginally unsatisfactory, unsatisfactory, and highly unsatisfactory.

The project achievements are also assessed according to GEF project assessment criteria: implementation approach, national ownership, stakeholder participation and public involvement, impact sustainability, replication approach, financial planning, and monitoring and evaluation system.

Based on findings, the assessment presents recommendations to contribute to the attainment of the project expected results, as well as lessons learnt to guide the identification of future adjustments for the project, as well as for future projects in similar contexts.

The assessment was based on the information acquired throughout the following tasks:

- Project management document review, including the progress and technical reports produced by the project – the list of consulted documents is provided in Section 8;
- Interviews with Fanamby staff and, more particularly, with the project team for collecting required information and explanations to appraise the project achievements;
- Interviews with institutional partners for collecting their appraisal on the project implementation; the list of people met is provided in Annex 3;
- Two 3-day visits to both sides of the forest corridor in the project intervention sites, to meet stakeholder representatives at all levels and, more particularly, beneficiaries within communities,

as well as for seeing tangible achievements and project impacts. The field visit itinerary is given in Annex 4.

The mission lasted 30 days between March 12 and April 17. The assessment was performed by an independent international consultant, Dr Dominique Roby.

2 PROJECT DESIGN

2.1 Context

Anjozorobe–Angavo Forest Corridor is one of last vestiges of natural ecosystems in the central highlands of Madagascar, whose high endemicity rates rank it among global priorities for biodiversity conservation. The central highlands are among the most threatened and least protected ecosystems of Madagascar.

Surveys conducted prior to the project start highlighted the rich biodiversity sheltered by the forest corridor, particularly in its mid-altitude part. The forest provides a habitat for 11 out of the 36 lemur species of Madagascar, including *Indri indri* and *Propithecus diadema diadema*, 74 bird species, one of which is endemic to the corridor and others endemic to the humid forests in the East, 84 reptile and amphibian species and 550 plant species, 7 of which are classified threatened according to the IUCN red list and 6 that belong to 5 endemic families in Madagascar. Many rare pteridophyte species were inventoried, some of which are endemic. The corridor was identified a national conservation priority in national and international scientific workshops, and in the Strategic Plan for Madagascar Protected Area Network.

Locally, the corridor is of high ecological, social, cultural, and economic importance as a source of food, medicinal plants, timber and firewood for daily needs, as well as a traditional value heritage for local communities. The ecological importance of the corridor as a hydrological and climatic regulator is of prime importance for the population in the neighborhood and in the periphery, as it is the main source to supply the streams that irrigate the thousands of hectares of rice fields both inside and outside the corridor and as it supplies drinking water to a few commune main towns.

However, such environment is subject to strong pressures, especially related to extensive illicit and licit timber exploitation and to clearings for agriculture and human settlement. These pressures are being accentuated by proximity to Antananarivo capital, whose demand in woody and non-woody products is incessantly increasing. According to the project staff, 20,000 ha of forest have disappeared between 1999 and 2004 under the effect of diverse pressures.

- Licit and illicit logging caused deforestation over 6,800 ha within 5 years according to a survey carried out by Fanamby in 1999.
- Legal logging based on permits is also an important pressure source, because of lack of capacities among the ministry in charge of environment and its agents to achieve an effective control of the exploitations and to support efficiently community based natural resource management.
- Clearings and fires made for agriculture expansion, namely for extensive slash and burn agriculture and crop cultivation, impacts on the forest corridor as a whole because of the migration of populations attracted by intact forest blocks. Clearing is particularly rising in the eastern part of the corridor, in which the Betsimisaraka (17% of population) clear land for practicing itinerant slash and burn agriculture and then selling it to the Bezanozano (35% of population) who own large ricefields, a phenomenon aggravated by land speculation due to the capital proximity. The West part of the corridor, which does not include large areas suitable for cultivation, is subject to degradation due to increasing human settlement due to population pressure. Insufficient capacities in the Water and and Forests administration to enforce law led to a situation of laxness in which use had become uncontrolled. New measures were adopted in 2002, thus shortly before the effective start of the project, to support the enforcement of existing laws on clearings and forest fires.
- Population poverty, lack of adequate financial resources at local level to support sustainable natural resource development and management, lack of incentives for land tenure security, and population needs, in particular those of young people, are the factors underlying such pressure.

- A taxation system is operational for the commune, but communes do not collect sufficient funds to invest in the region's development and in sustainable natural resource use. Therefore, direct payment of taxes to the Commune funds or to another higher agency does not translate into profits for the local population.

Under the combined effect of these various pressures, it was estimated that, without any intervention, the Anjozorobe–Angavo Forest Corridor would disappear within 15 to 20 years and lose its integrity within 6 to 7 years.

2.2 Project Objective and Expected Results

This project was designed to ensure the protection of the forest and of its periphery while providing solutions to reduce pressures and remove identified constraints.

Project Specific Objective

To conserve and develop the habitats and biodiversity in the Anjozorobe – Angavo forest corridor in partnership with, and to the benefit of, women and men living there.

Expected Results (as written out in the project document)

R1. A reliable and updated database, including socio-economic and ecological data on the forest corridor, to be used as a decision-making tool by local and regional authorities,

R2. Participatory development of a Protected Area as a model for other regions,

R3. An adaptable model of a three-level participatory management plan for natural resources to be set up and made operational,

R4. A strategic plan for land tenure security and for controlling slash and burn agriculture practices developed and tested in at least 15 *fokontany*,

R5. A taxation system model developed and tested to generate long term incomes to finance the structures for resource management in the Protected Area to be established and tested,

R6. Developed and tested sustainable harvesting techniques, alternative income-generating activities and sustainable intensive agriculture.

2.3 Project Design

The forest corridor of Anjozorobe–Angavo was designated as a conservation priority in the national biodiversity meetings, in 1995 and 1999, where national and international scientists gathered together.

For three years before the project start, Fanamby worked in the corridor to improve their knowledge and understanding of biodiversity destruction, to raise awareness of local communities, authorities, technical departments and NGOs on the importance of the corridor and its conservation, and to develop a spirit of enterprise among communities. A few community-based structures for local management, KASTIs or Committees for Environment and Forest Protection, were created in collaboration with MINENVEF, and activities to strengthen local population capacities related to forest resources were tested.

An approach was developed to mobilize all administrative bodies and regional authorities (Water and Forests Department, Police, Sub-prefecture, Commune, decentralized authorities), local communities and KASTIs to find appropriate solutions to halt forest degradation. Capacities among local management units, KASTI members, and forest department staff from DIREEF/CIREEF were strengthened through environmental awareness activities and education. A model for systematic control and following up offenses was also established at the level of the Water and Forests Department to control destructive activities and create synergies among control actors.

Private sector involvement was sought to support the creation of economic activities compatible with forest conservation and management.

The project was guided by a comprehensive vision of the corridor and its peripheral area, including the area in which land use and population activities influence the dynamics of the forest corridor ecosystem. The surface area of the intervention zone is 92,500 ha including the forest that covers

28,000 ha. It touches 2 regions (Analamanga and Alaotra–Mangoro), 3 districts (Manjakandriana, Moramanga and Anjozorobe), and 40 *fokontany* within 14 communes. Approximately 30,000 people live in these 40 *fokontany*. The project dealt directly with 1,100 households for planning and development activities, which amounts to approximately 6,000 people (20% of total population), who are therefore likely to be under the influence of the project impacts, positive or negative. The approach focused on communities and water supply, as an ecological service of the forest, is the main stake to ensure communities livelihood.

The project chose the *fokontany* as the privileged intervention level for planning spatial management using a participatory approach and for targeting the communities that are directly affected by the intervention. Successful strategies and actions conducted with communities and administrative departments were expanded to the whole corridor and its periphery, so as to be in a position to protect the Anjozorobe–Angavo forest as a whole and to have a measurable impact on the ground.

The consolidation of the *fokontany* development and management plans over the whole territory enables the elaboration of the management and development plan for the overall territory, seen as a harmonized productive landscape, integrating local communities' development plans and forest corridor protection through the creation of a protected area within which communities carry on with their activities. The forest corridor protection will contribute to maintaining ecological services, including water supply, required for agricultural production and activities of the populations living on its periphery.

Planning the development and management of the protected area and its periphery rests on biological, economic, and social data included integrated in an information system accessible to the parties involved at all levels.

The management of the peripheral production zone rests on the following:

i) Land security and control of slash and burn agriculture practices,

ii) Development and implementation of a taxation system to generate long term revenues to finance the Protected Area participatory management structure, and

iii) Increased agricultural production and development of high added-value products and alternative income-generating activities, such as ecotourism.

Natural resources are managed in the territory as a whole following a participatory approach through setting up an adaptable three-level plan: the local level for planning land use, for implementing local management plans and resource monitoring, the commune and inter-commune level for conflict management and control of resource use, and the territory level for harmonizing measures taken for the whole territory.

Being concerned about ensuring the sustainability of its interventions, the project adopted a highly participatory and inclusive approach which involved mobilizing all administrative units and regional authorities that are responsible, at their respective level, for the enforcement of legal measures related to forest protection (*Eaux et Forêts* Service, police force, *Sous-préfecture*, communes, decentralized authorities), local communities and KASTI to find appropriate solutions to counter forest degradation. Still consistent with its quest for sustainability, the project supported these actors, without however substituting itself for them. The capacities of the local management units, KASTI members and of DIREEF/CIREEF forest service staff were strenghtened through raising awareness and trainings on environmental issues. A model to ensure a systematic control and to follow through offeces was also established in the *Eaux et Forêts* Service to control destructrive activities and bring about synergies between control agents.

The project was approved by the GEF under the intervention domain related to biodiversity, and corresponds to the strategic priority #2 relative to mainstreaming biodiversity conservation into productive landscapes, as well as the objectives in Operational Program 4 relative to endemic biodiversity conservation and sustainable use of natural resources of mountain ecosystems. Through the establishment of a protected area, the project also contributed to the strategic priority #1 which is to catalyse sustainability of protected area systems at national levels.

2.4 Financial Planning

The total project budget is US$1,545,000. Planned contributions from various partners in the project document are provided in Table 1.

Table 1. Financing plan and actual contributions from partners as of March 31st 2008 (US$)

	GEF	FANAMBY	WWF	UNDP	Tany Meva	FID	Private Sector	Local communities	Malagasy Government	TOTAL
Planned	975,000	60,000	130,000	100,000	70,000	30,000	40,000		100,000	1,505,000
Planned in kind input								40,000		40,000
TOTAL (planned)	975,000	60,000	130,000	100,000	70,000	30,000	40,000	40,000	100,000	1,545,000
Paid as of 31.03.08	936,166	63,000	108,427	139,850	21,322	20,000	37,500	85,709	254,664	1,666,638
	96%	105%	83%	140%	30%	67%	94%	214%	255%	108%

Table 1 indicates that the payments made as of 31st March 2008 are slightly higher than planned contributions as stated in the project document. The lesser contributions (Tany Meva, WWF, FID) are compensated for by higher contributions from UNDP and especially from the Government and local communities.

Tany Meva contribution was suspended for the last phase of the project due to a change in its operation policy. The WWF contribution (including financial contributions pais to the project and contributions managed by WWF) is lower due to modifications of the budget availability.

UNDP contribution was increased by US$ 41,000 to support the project from January to March 2008.

Private sector contribution from April 2007 to March 2008, besides services paid by the projet, amounts to US$ 7,500 (13,500,000 MGA). This contribution allowed identifying resources that had some potential for development and marketing, providing information on existing markets, raising producers' and exporters' awareness on the certification process, its advantages and requirements, facilitating marketing and access to markets.

In-kind contribution of local communities, estimated at more than twice the amount expected in the project document, reflects well the active participation of beneficiairies to the project activities, in particular during the last phase of the project. This contribution had been estimated at US$ 30,000 for the midterm evaluation (which was conducted at approximately 60% of the project period). Now, contributions since the last quarter of 2006 amount to US$ 55,709. Detailed contributions are presented in the Annex 5.

Until March 2006, Malagasy Government's contribution added up to US$ 183,236. This amount had been mainly allocated to road rehabilitation. In 2007, the Government included an amount of 120,000,000 MGA (US$ 71,428 at US$ 1 =1,680 MGA) in the public investment program as a contribution to cofinance the project (direct contribution and tax exemption). In total, these contributions represent twice and a half the contribution planned in the project document.

Leveraged resources In addition to the resources planned in the financial planning, the project managed to mobilize additional financing which is a good example of the project efficiency to mobilize support from national and international programs and also to get the support from national authorities for the actions initiated by the project:

Partnership Program for Eastern and Southern Africa In 2006, the project mobilized US$ 2,327 to support pilot actions with a view to improve land tenure security through a high resolution satellite image.

PSDR An agreement was signed in July 2007 between the PSDR (program to support rural development) and the EP III (third environmental program) to ensure the management and quality of the so-called safeguard subprojects implemented to compensate restricted resource access for populations affected by the creation or extension of protected areas in the framework of the EP III. The project helped communities to submit proposals for a total amount of 118 million MGA with a view to acquire two distillation units to produce essential oils, and to construct an irrigation dam.

ADER (Development agency for rural electrification) The project supported the POIC of Anjozorobe to draw up a project document and introduce it to ADER, to request funding for the construction of a hydroelectric power station which will allow to electrify 5 communes, which will include the protected area reception post. The total cost is 150 million MGA, ADER contribution is 80% (120 million MGA) and beneficiairies' is 20% (30 million MGA). The project contributed 7 million MGA to purchase rubble stones.

WTO contributed approximately 115,000 US$ (207,562,560 MGA) in 2007 to contribute to the development of ecotourism products in the *fokontany* of Antsahabe. This amount was mostly intended for the construction and fitting-out of infrastructures for accomodation and catering, and contributed also to staff training, promotion, and to cover operating costs.

Ministry of Civil Engineering and Ministry for Decentralization and Land Planning. These two ministries contributed to rehabilitate the road near Mangamila at the total cost of 60 million MGA, to which the project contributed 3 million MGA.

Alaotra – Mangoro Region The Region contributed 3 million MGA for the purchase of office equipment (2 million MGA for a television) and operation (1 million MGA and cell phones for mayors) for the POIC of Moramanga whose office is located in Mandialaza.

3 PROJECT IMPLEMENTATION

3.1 Project start and duration

The project started in March 2004 and activities actually got under way in April 2004. The implementation was planned over 48 months and the project was ended at the end of March 2008.

3.2 Roles and responsibilities in project implementation

3.2.1 Main partners

The Ministry for the Environment, Water, and Forests (now for the Environment, Water and Forests, and Tourism) is the ministry in charge of the project since the corridor is part of the State forest. The ministry commissioned the implementation of the project to a national NGO, Fanamby, the prime entity responsible for its implementation, in partnership with the international NGO WWF, and in accordance with UNDP execution arrangements.

The Water and Forest Department (*Direction Générale des Eaux et Forêts*) is concerned by control and monitoring, the zoning process, transfers of management rights to local communities, and the protected area conservation status.

Fanamby is the national NGO in charge of the project implementation. Before the project start, the NGO was involved in the forest corridor for three years during which the team developed its knowledge on biodiversity and the pressures exerted on it, and initiated capacity building and awareness work among local communities, local authorities and technical services on the importance of conserving the forest corridor and on developing income-generating activities. Fanamby developed the project document in collaboration with WWF and with support from the UNDP/GEF regional coordinating unit.

UNDP entrusted Fanamby with the task of executing the project through the signature of a cooperation agreement for the duration of the project (March 20th 2004 to March 20th 2008),

established on the basis of their common objective which is to support sustainable human development. In accordance with this agreement, the NGO Fanamby took on the full responsibility of all services provided by its staff, who remained under its immediate supervision.

UN Country Office in Madagascar is planning to implement a new management system, "Harmonized Approach for Cash Transfer" (HACT), which, in accordance with the five key principles of the Paris Declaration on Aid Effectiveness (Ownership, Alignment, Harmonization, Managing for Results, and Mutual Accountability), aims at simplifying administrative and financial procedures to reduce transaction time, and emphasize effective operations and implementation of activities, to achieve more effectively rapid and sustainable results. Thus, the HACT approach requires a good level of confidence in the partner, capacities (ex: an efficient filing system so that UNDP can control documents at any time, good financial management and accounting capacities, competence in logistics). In 2007, UNDP selected the NGO Fanamby as a pilot partner to put in place this new system. In this context, Fanamby's financial and administrative capacity was assessed and recommendations allowed the NGO to improve some aspects of its management. It must be remembered that the implementation of this new system entailed format changes for the production of financial reports.

In this project, Fanamby was responsible for developing the strategy, related action plans and programs, overall coordination and making activities operational, in close collaboration with rural communities and partner organizations. Fanamby thus supported the Ministry for the Environment, Water, and Forests to establish the forest corridor of Anjozorobe - Angavo as a protected area following an implementation and management model adaptable to other regions.

WWF as Fanamby's main partner in the project, has contributed to its financing, is a member of the steering committee, and participated in the project monitoring. An agreement established between Fanamby and WWF acknowledges their common intervention strategy and the principle of elaborating common work plans. Such partnership is in line with the WWF approach for developing capacities, which is to support the emergence of local associations for biodiversity conservation. WWF contributed to the project through the realization of the fauna inventory, reforestation in the corridor parts which must be restored to ensure the ecosystem cohesion and integrity, complementarity and sharing tools (in particular for environmental education), communication, administration and finance (at project start).

Tany Meva Foundation brought in a financial contribution to local development activities.

ANGAP, an organization attached to MEEFT for the management of the protected area network, is a partner concerned by the zoning process and classification of the forest corridor into a protected area. ANGAP will co-manage, with the management bodies that will have been set up, the core conservation area that will likely correspond to a category II protected area (according to IUCN classification).

The private sector is involved in the project to develop partnerships with local communities to implement income-generating activities.

Local authorities and communities are the main beneficiairies and first actors of the project, in particular to experiment farming intensification techniques and develop income-generating activities. They play an essential role in the delimitation of the protected area and design of development and management plans for both their land as well as the territory. Their involvement is a decisive factor for the results on land tenure security as the steps are initiated by them and they are responsible to provide the plan for the requested plot.

The project steering committee (or project committee, according to the expression used in UNDP procedures) was made up of representatives from Fanamby, WWF, UNDP, Tany Meva, the University President's office, the private sector, local authorities (sub-prefectures) and local communities, under the co-presidence of the Inter Regional Directions for Environment, Water and Forests (DIREEF) of Antananarivo and Toamasina. Post of secretary was held by the project team. The steering committee was responsible for adopting the annual work plan and annual activity report, for discussing the project approach and implementation in the course of the year, in particular the aspects related to control and monitoring and for advocacy of the project with other stakeholders and partners. It had been planned that the steering committee would meet twice a year, for the adoption of the annual report and of the workplan for the coming year, and for the project monitoring. Since the project

start, the steering committee held 5 meetings, in July 2004, March and December 2005, December 2006 and February 2008. The steering committee meetings were held in the villages directly touched by the project interventions.

3.2.2 Project staff

When the project started, the team was made up of a regional project manager supported by a technical team including five persons in charge of the following components: conservation and development, support to agricultural production, support to communes, databases and monitoring–evaluation, and information–communication. The duties related to the latter were later carried out by the other technical staff and by the project manager. This team is supported by a team from Fanamby head office: the executive secretary for the planning and institutional coordination aspects, a GIS, ecological monitoring and research specialist, a person in charge of logistics and organizational support, a tourism specialist recruited in October 2006, an administrative team including a person in charge of administration and finance, an in-house auditor recruited in July 2007, a chief accountant recruited in September 2007, a person in charge of communication recruited in January 2008, and two drivers.

According to the project document, the project should have been implemented by a mobile office that would have provided permanent presence in the *fokontany* for a three month period, and would have moved on to other *fokontany*. Fanamby preferred to establish fixed bases equipped with permanent and reliable means of communication, following the principle that communication is a vector for development. In 2005, two field bases were set up and equipped with means that enabled permanent communication (electricity supply with solar panels and satellite communication system). The staff assigned to these bases included an assistant for ecotourism development and three field technicians.

The decision to equip field bases with high-performance and permanent means of communication proved to be judicious as it allowed the continuous presence of the team right in the intervention environment (technical team members, although based in the capital city, were present in the field 80% of their time). Such conditions enable the establishment of quality relationships and trust bonds with the population and authorities. Keeping a sustained communication with project partners and direct beneficiaries has been a critical factor in the success of the projet.

Such a communication enabled a permanent contact between the head office and the project team in the field, enabled each team member to communicate with the others, ensured monitoring and control of the book-keeping and a timely allocation of the financial resources required to ensure the course of field operations, facilitated exchanges with authorities, and served the interests of the community and authorities by putting at their disposal computers giving access to Internet and the databases developed by the project.

3.2.3 Partnerships with other stakeholders involved in the country

To implement this project, Fanamby established partnerships with the University of Antananarivo and with national sector projects or programs such as ADRA and FID. MBG contribution was involved on a contractual basis.

MBG worked at the inventory of the corridor flora based on a contract with the project. This study enabled them to make recommendations on developing the corridor to ensure cohesion and integrity of ecosystems and habitats.

University of Antananarivo. Fanamby and the University of Antananarivo, Animal Biology Department, signed a collaboration agreement to work in partnership in the corridor based on a common acknowledgement of the project objectives and the community focused approach. Research carried out by the University identified biodiversity-rich areas, and developed the knowledge on target species. The University of Antananarivo also contributed to socio-economic studies.

ADRA and the project signed an agreement to avoid redundancy between the two projects and to exchange their services. The convention relates to collaboration for contributing to sustainable development of the Region Mangoro, East of the project intervention area, through farming intensification to steer producers towards marketing and to develop relationships with the private

sector. The technical methods developed by the project were integrated in training sessions provided by ADRA in 2007. This organization has been working in two communes south to the project zone since 1999. From 2004 to 2009, they are implementing a USAID funded project east to the project site, aiming at food security for local populations. One of the components relates to farming intensification following a "model farmer" approach, along with training in agriculture and support to developing demonstration plots, which is the actual collaboration context with the Anjozorobe-Angavo project.

FID and the project established a collaboration agreement in 2004 to rehabilitate the road from Alakamisy to Ambohibary, and to build a footbridge across rice fields. Thanks to this collaboration, the wood required for building the footbridge was harvested from eucalyptus trees (rapid growth introduced species) in the neighborhood rather than native species from the forest.

3.3 Budget, expenditure statement and efficiency

Table 2 presents the project budget (cumulative budget estimates) and the expenditure statement by 31 March 2008. Overall, the project achievement rate (91%) and rates vary little between results and co-funding sources, showing that planned activities were carried out according to the planning.

The table 3 which details the cost of achievements under each result was prepared with a view to assess the project efficiency. However, without having data for similar activities carried out in a comparable context, it has been difficult to estimate the efficiency for most activities, except for the protected area management. In 2003[2], ANGAP's protected area management costs were estimated at US$ 5 per hectare and per year, including operation costs (head office, regional directions, and site operation and activities) and investment costs (biodiversity management, ecotourism development, awareness) respectively estimated at US$ 2.5 per hectare and per year. These costs were likely reduced in the recent years and the ratio of their annual budget to the surface of the protected areas under their management produces a ratio of US$ 3.4 per year. Management costs for the two protected areas set up and managed by Fanamby are 1.8 to US$ 2.4 per ha for Daraina and 2.0 to US$ 4.0 per ha for central Menabe. As a comparison, if we consider that Anjozorobe-Angavo protected area management costs are represented by the costs for ecological monitoring, database, sustainable management structure, reforestation, control and surveillance, and tourism development, costs amount to US$ 2.37 per ha and per year, thus lower than the costs estimated for ANGAP. This comparaison is, of course, questionable since, on the one hand, expenses taken into consideration are not exactly similar (Fanamby's head office expenses are not considered) and, on the other hand, the costs presented for ANGAP were estimated for maintaining existing protected areas while the costs presented for the Anjozorobe-Angavo protected area correspond to initial investment costs which will surely be much higher than recurrent costs, in particular for ecotourism development.

This table might be useful as a reference for setting up new protected areas in the framework of the MPAS. It also highlights the importance given to communication by the project, considering the project investment for Information – Communication which makes up more than 15% of the project budget. This high amount is likely due for the most part to the costs of the satellite communication system and of the solar panels.

[2] Carret and Loyer, 2003. See bibliography.

Table 2. Budget and expenditure statement (in MGA) per result and co-financing source from March 2004 to end-March 2008.

	GEF		UNDP		TANY MEVA		WWF		GOVERNMENT		TOTAL	
Result	**Planned**	**Achieved**	**Planned**	**Achieved**	**Planned**	**Achieved**	**Planned**	**Achieved**	**Planned**	**Achieved**	**Planned**	**Achieved**
R1 Database	434,711,697	402,583,745 93%	70,975,273	59,199,635 83%	17,235,800	16,608,928 96%	62,300,000	36,953,717 59%	100,000,000	100,000,000 100%	685,222,770	615,346,025 90%
R2 Anjozorobe PA Establishment	327,729,579	296,436,742 90%	38,701,192	34,548,978 89%	3,630,520	3,630,520 100%	108,785,600	79,852,800 73%	-	-	478,846,891	414,469,041 87%
R3 Participatory management plan	67,434,532	61,457,760 91%	16,037,160	6,015,660 38%	-	-	-	-	-	-	83,471,692	67,473,420 81%
R4 Land tenure security	96,924,076	81,629,376 84%	18,317,111	13,342,760 73%	-	-	-	-	-	-	115,241,188	94,972,136 82%
R5 Taxation System	39,361,854	36,496,163 93%	12,981,815	8,700,527 67%	-	-	-	-	-	-	52,343,669	45,196,690 86%
R6 Sustainable exploitation / IGA	294,032,494	254,819,482 87%	136,547,789	115,357,895 84%	12,947,390	7,478,657 58%	50,000,000	52,578,962 105%	20,000,000	15,000,000 75%	513,527,674	445,234,996 87%
Logistic/administrative support	735,986,068	734,927,216 99%	19,150,374	14,706,863 77%	-	-	50,000,000	47,470,410 95%	-	-	805,136,442	797,104,489 99%
Total	1,996,180,300	1,868,350,484 94%	312,710,715	251,872,318 81%	33,813,710	27,718,105 82%	271,085,600	216,855,888 80%	120,000,000	115,000,000 96%	2,733,790,325	2,479,796,796 91%

Table 3. Cost (MGA) of achievements under each result.

Expected results	Achievements	Planned (MGA)	Achievements (MGA)	%
R1 Database	Ecological monitoring	83,934,592	59,214,745	2.39
	Database	77,446,451	71,087,552	2.87
	Monitoring and evaluation	95,865,055	92,082,271	3.71
R2 Anjozorobe PA Establishment	Protection status	105,912,293	104,145,616	4.20
	Development and management plans	228,811,542	223,712,350	9.02
R3 Participatory management plan	Sustainable management structure	106,809,987	92,603,901	3.73
	Reforestation and rehabilitation	19,520,003	10,516,875	0.42
	Control and surveillance	66,968,162	30,231,240	1.22
R4 Land tenure security	Land tenure security: collaboration with topo services (research locations, aligning)	71,496,760	58,314,830	2.35
	Land tenure security: definition of the strategy (information, exchanges, discussions)	50,274,428	41,719,439	1.68
R5 Taxation System	Taxation	45,813,669	40,134,557	1.62
R6 Sustainable Exploitation and IGA	Product development: sustainable intensive farming techniques, private sector collaboration	180,391,285	122,027,330	4.92
	Tourism	259,723,004	244,657,231	9.87
Crosscutting components	Community microprojects - development	91,889,158	84,883,840	3.42
	Information communication	410,462,140	381,011,032	15.36
	Web Site	2,759,182	2,587,848	0.10
	Trainings and workshops	30,576,172	23,761,650	0.96
Logistic and administrative support		805,136,442	797,104,489	32.14
Total general		2,733,790,325	2,479,796,796	100

3.4 National Ownership

Madagascar Protected Areas System

Increasing the surface of protected areas is one of the major priorities of the *« Madagascar Action Plan »*. At the time of the Vth World Parks Congress held in Durban in 2003, the President of the Republic of Madagascar annonced the Government will to increase the protected area surface from 1.7 million to 6 million of hectares before 2009, through the adoption of new approaches that relied more on the communities' participation. To come up to this will, it was necessary to widen the range of categories and governance modes of the protected area system and to adapt the related legal framework. The MPAS commission was created under the MEEFT's authority to develop the new concepts and tools for the creation and management of the new protected areas with a group of technical and financial partners. The protected areas previously set up by ANGAP corresponded to the IUCN categories I, II and IV and the Code for protected areas (COAP) is specific to these categories. The MPAS has initiated the creation of 22 new protected areas corresponding to the categories V and VI, among which the one of Anjozorobe – Angavo, which will cover 2.4 million hectares. The main challenges for the establishment of these new protected areas are:

- To ensure biodiversity conservation;
- To reduce poverty;
- To get local communities involved in the management;
- To involve other sectors (Mines, Petroleum, Fisheries, Tourism, etc.);
- To integrate protected areas in a larger planning framework;
- To curb deforestation and exclude large scale forest exploitation and mining.

The approach adopted for the establishment of the Anjozorobe–Angavo protected area is a pioneer experience in the Malagasy context. The first experience and learning made in this project therefore contributes directly to the development and implementation of the approach promoted by the MPAS Commission. The order for the provisional protection of the protected area and the management delegation contract to Fanamby were transmitted as models to all actors who are establishing protected areas in the MPAS framework. Moreover, the team members are actively participating and contributing to the MPAS commission weekly meetings.

Regulation and policy framework

Orders signed in 2004 for a 2-year period and renewed in 2006 brought to a halt forest exploitation and mining licensing in the priority conservation areas, indicating this way the authorities' significant support to the establishment of protected areas in the country.

The decree specifying how the COAP should be enforced was amended in December 2005 to integrate the new protected area categories (III, V and VI) planned by the MPAS and to allow resorting to other types of governance.

The integration of the Anjozorobe - Angavo protected area in a larger scope planning is achieved through the regional development plans which development was supported by the project. So, the vision for the Alaotra-Mangoro Region is to establish the region as a model for balanced, rapid, and sustainable development targeting population welfare and preserving environment. The cross-cutting line is to ensure environmental conservation and rational management. The integration of these environmental concerns demonstrates the strong adoption by the regional authorities of the principles promoted under the project. Activities listed in the plan include setting up the protected area and other conservation sites.

Involvement of territorial authorities

The officials in local governments (*fokontany* presidents and mayors) have supported and got gradually more involved in actions for environment. Such attitudinal change, previously noted at the midterm evaluation, is illustrated through the following facts:

- Active participation of *fokontany* presidents to introductory information campaigns and to the delimitation of the protected area, and to the organization and coordination of control and surveillance rounds with the Quartiers mobiles in the eastern part of the corridor;

- *Fokontany* presidents assuming more responsibility in the conception and organization of events in favor of environment such as the World Environment Day and regional fairs on this theme.
- Creation of an "Environment" section in all communes, as a result both from encouragement by the Presidency as well as promotion, by FID, of "green" projects that contribute to environment preservation;
- Creation of an "Environment"commission within every POIC;
- Involvement of mayors and POIC in the development of the taxation system and introduction of a system for the distribution of tax revenues related to forest products, with a view to fund recurrent costs of forest patrols and controls;
- Identification and mobilization of revenue sources by POIC to cover expenses related to the enforcement of legal measures about natural resource management (pro-environmental events, forest restoration, forest surveillance, and dispute settlement);
- Involvement of mayors and POIC, *fokontany* presidents and administrative officers in charge of Environment, Water and Forests in the organization of forest controls and in the transfer and follow-up of the offense reports to the appropriate authorities;
- One POIC has adopted a *dina*[3] for offenders who have done illegal logging or who have set fire to the forest. This *dina* determines a common compulsory penalty for all communes of the POIC, which is to do reforestation.

Government's financial commitments

Until Mars 2006, the Malagasy Government's contribution amounted to US$ 183,236. This amount had been mainly allocated to road rehabilitation. In 2007, the Government In 2007, the Government included an amount of 120,000,000 MGA (US$ 71,428 at US$ 1 =1,680 MGA) in the public investment program as a contribution to cofinance the project (direct contribution and tax exemption). In total, these contributions represent twice and a half the contribution planned in the project document and are a demonstration of the government support to this project.

3.5 Consultation and participation of stakeholders

Participation of local communities and authorities. In the establishment of a category V protected area, stakeholders participation, in particular local communities', is at the centre of all steps. The project adopted a highly participatory approach which resulted in a more general and stronger support for the establishment of the protected area. This strong support from communities is shown by their in-kind contributions to the project implementation (see Table 1). Estimated on the basis of a daily salary of 3,000 MGA (details in annex 5), communities contribution corresponds to more than twice the expected amount. Since the midterm evaluation, communities contributed to the rural newspaper production (US$ 4,550), to the development of ecotourism (US$10,054), to microprojects to support communes, in particular the road rehabilitation and the rural electrification (US$ 13,408) and to the development of new farming techniques (US$ 24,786). This last amount corresponds to 13,880 working days and shows the local communities will to develop income generating activities with the support and supervision of this project.

Local communities and authorities were and are still closely involved in all steps to plan, delimitate and elaborate local development plans based on a preliminary identification of interests and needs of parties. All people met emphasized the fact decisions had always been made on the basis of a consensus.

The project facilitated the adoption by each *fokontany* of their development plan by using aerial photographies which allowed communities to recognize familiar landmarks and to participate actively to the preparation of their development plan and to identify the limits of the land portion which is included in the protected area. Meetings to report on the participatory delimitations allowed compiling and taking into account complaints and additional information from all concerned communes and districts.

[3] The *dina* is a convention established among members of a traditional community and based on customary mechanisms, in order to obtain a compensation for the losses caused by an offense.

All interventions, whether related to planning, farming intensification, land tenure security, support to communes, or to development of income generating projects, were conducted at communities' request, after constraints, requirements and potential benefits had been clearly explained to them by the team members.

Communities' active involvement can be largely attributable to the development of a trusting relationship with the project team and towards project proposals. This relationship was, of course, favoured by the inclusive approach, numerous consultations, and the absence of imposition, but also by the installation of 2 project offices within the intervention zone and the microprojects to support communes:

- Setting up offices within the intervention zone allowed maintaining permanent presence and communication and the development of genuine relationships on a day by day basis with individuals in the beneficiary communities and among local authorities.
- Development projects carried out to the benefit of communes – such as contributions for school rehabilitation, road rehabilitation to the East of the corridor, the contribution for the construction of a hydroelectric dam to the West, environmental education in schools and support to the World Environment Day – opened the way with authorities and local populations who did not perceive anymore any conflict between their own interests and those of environmental conservation. Although these projects were not necessarily directly related to biodiversity conservation, they created receptiveness conditions towards concepts and initiatives promoted by the project, of which awareness to ecosystem and resources conservation.

Communication with technical and financial partners.

- The project annual work plan is elaborated by each technical team member and validated by the whole project staff, including field teams. It is then distributed to all communes, the 3 districts, the 2 regions, the ministry (MEEFT, DIREEF and CIREEF), and the partners (Tany Meva, WWF, UNDP, ANGAP, private sector and gendarmerie). This large distribution to concerned parties enables them to be informed and to communicate their concerns, needs and expectations relatively to the initiatives suggested by the project.
- After its signature in December 2005, communes and every *fokontany* were systematically visited to explain to them the content of the provisional protection order and of the accompanying development plan.
- The project attends monthly mayor meetings, as well as meetings of *fokontany* presidents convened by the mayors, according to the meeting's importance, the relevance of issues discussed, and expressed requests. Communication intermediairies within *fokontany* are the presidents, who convene local conservation committee meetings and who are involved in the procedures for relative land tenure security.

3.6 Potential for replication

All components of this project were designed in accordance with the replication approach to develop adaptable models and demonstration projects:

For the creation of a protected area following a participatory approach	The temporary protection order and the management delegation contract were transferred as models to all actors who are setting up protected areas in the Madagascar Protected Area System (MPAS) framework. The MPAS also plans to draw lessons from the experience acquired through the approach adopted by the project to set up new protected areas. The innovative approach and methodology developed by the project to create and manage the Anjozorobe – Angavo protected area are considered as a first practical experience which serves to improve the elaboration of the legal framework for the MPAS under which new protected areas will be established in many regions. The project does not have a summary of the experience which would make easier the adaptation of the approach to other sites, except for presentations (PowerPoint format) which supported informing MBG, UNESCO, and other actors on the process followed.

For the participatory management of resources by a three-tier management structure	The management structure was set up : - 1st level: operational structures in the 34 *fokontany* that utilize the forest - 2nd level : Inter-commune structures for 3 POIC (one per district) grouping together mayors on the basis of issues they truly share
For land tenure security	For land plots located outside the protected area, the project first targeted *fokontany* at the immediate periphery of the protected area to decrease the pressure caused by clearings for agricultural land expansion, and the classical procedure was supported by the project for 86 land plots (62 households) inside one *fokontany*. For land plots located within the protected area, 17 *fokontany* already have their local land occupation plan: delimitation of land plots and identification of owners. The legalization of land occupation depends on people's will and is a matter for land tenure offices. 2 POIC grouping 9 of the 14 communes concerned by the project committed themselves to carry on with the implementation of this strategy with the project support, which turns out to be particularly important for the *fokontany* located outside the protected area.
For the development of income generating activities with the participation of the private sector	13 demonstration sites using improved and innovative cultivation techniques for production intensification were set up for the following crops: ▪ Improved bean varieties cultivation in 9 *fokontany* with 362 households, ▪ Improved potato varieties cultivation in 10 *fokontany* with 342 households, ▪ Different pilo-pilo varieties cultivation in 3 *fokontany* with 33 households, ▪ Organic rice cultivation in 2 *fokontany* with 50 households, ▪ Organic ginger cultivation in 4 *fokontany* with 60 households, ▪ High value fruit tree nurseries in 2 *fokontany*.
For the development of an innovative taxation system to ensure management structures self-financing	In 2007, the tax system generates revenues to 15 *fokontany*, to communes and to 2 POIC for the following products and services: ginger, organic red rice, farm products, wood, charcoal, toll, and tourism. The POIC introduced a system to allocate tax revenues from forest products to fund recurrent monitoring costs for forest patrols and control.

Thus the project has achieved an effective replication of the pilot activities within the intervention zone to extend the benefits to a larger number of beneficiaries: it enabled the replication of farming techniques and extended the use of improved seeds among households and *fokontany*, of taxation systems among *fokontany*, communes and POIC, of approaches to secure land tenure among *fokontany* and communes, of first level operational management structures among *fokontany* and of second level among communes and POIC. The experience which is being adapted beyond the project intervention zone is the approach for the establishment of the protected area, including the development of its development and management plan. This adaptation was initiated through sharing experience with two other Fanamby intervention sites, with MBG and UNESCO/World Heritage, and through the coordination of the MPAS commission who distributed the provisional protection document and the management delegation contract and who draw their inspiration from this first experience to develop the concepts and tools to establish new protected areas. The distribution of a document on the approach to set up the protected area would facilitate the adaptation to other sites of the practical knowledge and experience accumulated throughout this projet.

Besides, the potential for replication/adaptation of the experience acquired by the project is confirmed by the GEF portfolio evaluation conducted in end 2007 which underlines that this program of modest size, implemented in the field by a malagasy NGO (FANAMBY), putting local residents at the center of the process and trusting them, is setting up solid foundations for the sustainable development of communities and for the conservation of natural resources in the area.

3.7 Monitoring and evaluation – Indicators

The project document suggests a logical framework and a distinct monitoring and evaluation system. The midterm evaluation had noted that most result indicators (impact effect indicators), of the logical framework were rather corresponding to operational indicators for activities and that they did not allow to actually assess progress towards the achievement of the biodiversity conservation objective to the benefit of resident populations.

Initial monitoring plan The initial ecological and socioeconomic monitoring plan for the Anjozorobe–Angavo region, designed to better guide actions aimed at sustainable natural resource management and biodiversity conservation, includes ecological, socio-economic, and physical indicators to analyze human activity impacts on the ecosystem and to measure the performance of natural resource management activities in the Corridor.

The ecological indicators suggested in the initial monitoring plan would have been appropriate for measuring the project impact but the baseline of the two first ones were not available on time and the final estimation (end of project) is not avaialable for the third indicator. The rate of forest loss could still be estimated on the basis of a comparison with data from 2004, however the usefulness of this indicator is somewhat restricted as it does not reflect the forest condition.

Ecological indicators	**Observations**
Inventory and abundance of flora and fauna species found in each sector	Flora and fauna inventories (baseline data) were only available in 2006 and the new ecological monitoring protocol - which includes the monitoring of the abundance and distribution of lemurs – was only implemented at the end of 2007, therefore reducing the usefulness of these data to measure the project impact. Species inventories established previously to the project do not provide information on the abundance and distribution of target species.
Number of threatened endemic species listed in the 6 sectors / Endemic species in the corridor are preserved	
Surface of cleared natural ecosystem in relation to the total surface of the corridor / Forest cover recession does not exceed 3% of the total corridor surface at the time t_0.	Forest cover within the future protected area at project start (2004) was 33,400 ha. No estimation was available at the end of the projet.

Socioeconomic indicators suggested in the initial monitoring plan include two impact indicators and various operational indicators that will not be examined again here (were discussed in the midterm evaluation).

Socioeconomic indicators	**Observations**
Income generated by each IGA per household, organization and region	The various sources of income for the heads of the households are only quantified for agriculture and cattle breeding. Other activities are registered in the files in order of importance of the contribution to the income of the heads of the households –charcoal making, carpentry, smithery, market gardening, sugar cane and tobacco cultivation, *toka gasy* making, craft industry, sewing and embroidery, basketry, daily labour – but related income is not indicated. The income generated by farm production is difficult to estimate for the products used, even in part, for self-consumption. Generated income is known for cash crops: ginger and rice. Data on household income per type of activity for time t_0 (prior to the project) are not available – therefore the project impact cannot be directly estimated with this indicator.
Yield increase from crops on *tanety* and managed land parcels	The assessment of parcel yield increase in 2005 is of the order of 20%. No assessment was done for the other years.

In conclusion, this monitoring plan was not actually implemented for various reasons and the indicators were not useful to document the project impact. On top of being necessary to estimate the project impact on the beneficiary population, baseline data on household income are fundamental for the socioeconomic impact study and for the safeguard plan that must be submitted for the final creation of the protected area. The fact that such data are not available might be a constraint for the preparation of these documents.

New ecological monitoring protocol A new protocol, more simple and more targeted, was elaborated in 2007 to provide the information needed for the sustainable management of natural resources and the conservation of biodiversity, for farming activities and for the monitoring of the project impact on natural resources.

It includes:

- Weather data
- Water flow measurement
- Fire occurrence
- Logging occurrence
- Tree fern trunk harvest occurrence
- Lemur distribution and abundance
- Freshwater crayfish distribution and abundance

A methodology to collect data based on geolocation using high precision, but simple to use, equipment (GPS *logger* and digital camera) was developed by a trainee in 2007. It allows collecting location data along a specific course determined according to target natural resources. These data are then coupled together with handwritten data and pictures, and referred to the cartographic system *Google Earth* available through Internet for their processing.

The advantage of this new protocol is related to its simplicity and to the fact that it is more targeted, which increases the chances that it will be effectively implemented and contribute to the sustainable management of natural resources in the protected area. It will allow, among other things, to estimate the impact of the establishment of the protected area and of related activities on the lemur populations that are the icon species of the forest corridor.

Fire occurrence: Data on fire occurrence are obtained from the MODIS alert system, of the Maryland University, which detects fires by satellite. Data are referred to the cartographic system *Google Earth* for their processing. The project analysed data from 2001 to 2007 on an area including the protected area, which allows comparing the evolution of fire occurrence inside and around the protected area, hence in similar ecological and socioeconomic contexts. The interpretation of these data with the idea of showing the project impact must be made with caution and take into account the fact that the cloud cover which reduces fire detection may vary significantly from one year to the next, thus introducing an artificial factor of variability. Also, this detection system which main purpose is to serve as an alert, does not currently give information on the extent of fires.

Water resources: The midterm evaluation had suggested including the monitoring of the flow rate of main streams, whose supply is influenced by the forest condition and whose importance is vital to maintain production activities and provide drinking water to neighboring populations. The task of monitoring 3 pilot sites using a simple method was given to community members in 2006; however collected data but one were not probable. Nevertheless, throughout the interviews conducted for the evaluation, local authorities and communities testified to a significant increase of water resources, of a reduction of the number of water management-related conflicts, due to an increase in water supply in rice fields, and attribute it to the forest preservation due to the active repression of *tavy* offences. Yet, this inference follows from an erroneous perception of the hydrologic benefits of forests. Studies have demonstrated that forests almost always use more water than shorter vegetations like crops, grassland or regenerating vegetation, as more water is evaporated from trees and their root system draws more water from the soil. Normally, forest removal tends towards increasing streamflow totals. This relationship, according to soil condition, is further expounded in section 5.

It would be useful to maintain efforts to measure water flow but also water quality, in particular sediment load, with the view to highlight the importance of the forest conservation to reduce risks of erosion and rice field sedimentation downstream of the watershed.

4 RESULTS

Results achieved by the project are presented and evaluated with regard to the development objective and expected results, on the basis of the indicators suggested in the project document and a few additional impact indicators. To avoid redundancy and, at the same time, highlight progress made in the last phase of the project, the results achieved between 30 June 2006 and 31 March 2008 are presented parallel to the results achieved before 30 June 2006 and presented in the midterm evaluation report.

4.1 Achievement of the project specific objective

Table 4. Project progress with regard to the development objective, and assessment of progress

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
Project Objective as in the project document: **The biodiversity and habitat in the Forest Corridor of Anjozorobe are conserved and used in a sustainable manner** *Revised project objective:* To conserve and develop the habitats and biodiversity in the Forest Corridor of Anjozorobe–Angavo in partnership with, and to the benefits of, women and men living there.			
***Indicator 1*:** At end of 2006, a system is established and formalized with various protection levels, including protected areas, restricted use zones and multiple use zones.	The order No 20-023/2005-MINENVEF was signed on 30 December 2005 and allows for temporary protection for a 2 year maximum period. The protected area must be gazetted before the end of this period. This temporary protection decree designates the Department for biodiversity preservation within DGEF, as manager of the protected area being set up, while specifying that this management may be delegated to one or some public or private entities according to a management delegation contract. A delegation contract for managing the protected area being created was signed with Fanamby in August 2006, and has been effective from 30 December 2005. The physical delimitation of the protected area being established was achieved and it covers a surface area of 52,200 ha, of which the natural forest covers 28,000 ha. The management plan defines 3 zones : a core zone of 12,900 ha, a sustainable use zone of 36,808 ha in which user rights are granted to communities and private land owners, and a zone where forest resource management rights are transferred to local communities following the GELOSE	The order No 380/2007/MINENVEF extends the order No 20-023/2005-MINENVEF relating to temporary protection of the protected area being established for a 12 month period. Article 2 of the order No 380/2007/MINENVEF specifies that the provisions of the temporary protection order remain applicable. The delegation contract for the management of the protected area which designates Fanamby as the manager was effective for a two year period from 30 December 2005. However, the SAPM commission is currently drawing up an order which will extend the management delegation contracts for various protected areas which currently have a provisional status and which temporary protection period will expire once protected areas will be gazetted. A separate order will define details and validity period for the management delegation agreements. In accordance with the MAP, the country committed to increase protected area surface to 6 million of hectares. This led to a revision of the strategy for creating protected areas under a new type of governance which recognizes local community involvement and the integration of their activities in the protected area. The	**S**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
	law, over a surface area of 2,492 ha.	final setting up of the protected area must conform to the new legislative framework governing the creation of new protected areas.	
Indicator 2: At end of 2004, community leaders and authorities are trained to manage issues related to natural resource management.	13 Mayors and 39 heads of *fokontany* have been informed on: . the provisional protection order, . the management system to be set up . the adaptive process for elaborating development and management plans. The implementation strategy was validated through consultation. However, the level of understanding of the conservation objectives guiding the global project operation is highly variable among the mayors involved. Furthermore, authorities and community leaders have not yet adopted the database as a decision-making tool. An attitudinal change towards taking ownership of the forest by stakeholders is observed at all levels, including regional and district authorities, mayors, heads of communities and technical services.	Thanks to the strong participatory approach adopted by the project, to the importance they have attached to communication and to the continuous presence of the project team at the project intervention sites, local and regional authorities show a very strong support to the project. An attitudinal change towards taking ownership of the forest by stakeholders is observed at all levels, including regional and district authorities, mayors, heads of communities and technical services. Training sessions on current legislation contributed to develop a coercive attitude to intensify the enforcement of current laws related to the ban on forest fires and clearings. All mayors, their councillors and 39 heads of *fokontany* out of 40 were informed on: ▪ the adaptive process for elaborating development and management plans, ▪ a community-based information management system, ▪ support to the Topographic Service of the Public Organization for Inter commune Cooperation (POIC) in the process for securing land tenure. The level of understanding of the conservation and sustainable development objectives guiding the global project interventions is still variable among the mayors involved. This can be largely explained because only 3 mayors out of 14 were re-elected in the recent elections, which could have jeopardized the sustainability of investments for commune and POIC capacity building (which risk was identified in the MTE). However, one re-elected mayor (Ambohidronono) shows an excellent	**HS**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
		understanding and has taken ownership of all issues related to setting up the protected area. Due to his strong leadership, he will certainly ensure a transfer of necessary learning to maintain the initiatives undertaken in his POIC, where he is the only re-elected mayor. Also, most newly elected mayors were previously involved in their commune as deputy mayors or councillors. Interviews confirmed that they were already informed of main issues and that they benefited from trainings from the project.	
		With a view to ensure that capacity building investments with communes are sustainable, training sessions targeted commune technicians in all 28 communes of Moramanga (Eastern Region), of which 4 are located in the intervention area, to enable them to support their commune in elaborating project documents to search financing. Such a document was elaborated by the commune Ampasipotsy for the construction of an irrigation dam and submitted to PSDR. The request was agreed to and PSDR is currently finalizing the contract (construction expected before end of 2008) The training of POIC members has enabled the identification of POIC development priorities (intercommunal development plan). These priorities, which may include an intercommunal secondary school, rural electrification, funds raising and management for road maintenance (road-fund tax), are presented as brief pilot studies and facilitate requesting funds with donors and national financing programs (PSDR, ADER), which contributes to the development of their autonomy.	
Indicator 3: Two years from	The various types of community based management	The management structure set up in the context of the	**MS**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
project start, a three-tier natural resources management structure is set up	structures (VOI, KASTI, VNA, and *Quartiers Mobiles*) were identified for each management unit. About 200 people benefited from training sessions provided by officials from *Eaux et forêts*. Preparation of the protected area development and management plan is under way, including terms and conditions (cahiers de charge) for communities whose land is partly included in the protected area. The three management levels are as follows: Level 1: Operational level at the *fokontany* or inter *fokontany* scale - 33 local committees for resource conservation and development within the 32 *fokontany* that use the forest on a permanent basis Level 2: Conflict management level at commune and inter-communes scale: 3 Public Organizations for Inter commune Cooperation that represent all communes concerned by the protection of the Anjozorobe–Angavo forest corridor were set up on the basis of common environmental issues and their official recognition is under way. Level 3: This level includes the protected area and its peripheral area. Setting up of the Territory Committee (*Committee de Territoire*) is expected by the end of 2006, during the Steering Committee meeting whose membership is similar, except for donor representatives (including UNDP), the Ministry for Mining, and the private sector. The formal establishment of the Territory Committee is linked to the implementation of the territory management plan. Terms and conditions will include the three-level structure terms of reference, the means at their disposal from the tax system, and will	provisional order was maintained throughout the project implementation. Its main task was to monitor and preserve the forest corridor. In order to gazette the protected area, the participatory elaboration of the development and management plans must be completed. Level 1: At the time of this final planning, the operational structure in charge of the implementation and monitoring the management plan at the *fokontany* level will be identified by the *fokonolona*. Operational structures are likely to differ since they will be identified on the basis of effective mechanisms in the *fokontany*. Level 2: Two POIC have obtained their legal status, and as such, are recognized by the MPrDAT. The three newly elected mayors of the other POIC are thinking of their officialization. Level 3: In the light of the project experience and difficulty in mobilizing the project steering committee, it is suggested that the Territory Committee will be chaired by the regions with the participation of deconcentrated services and local representatives. A preliminary version of the terms of reference was elaborated.	

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
	specify how structures will operate among themselves, in accordance with current regulations. Such terms and conditions will serve as general policies and procedures and are set to be revised on a recurrent basis by the Territory Committee.		
Indicator 4: Two years from Project start, tax scheme is in place and operational	A strategy for improving toll collection and management is being validated among the POIC, East to the forest corridor. Taxation plans were developed for the following products and services: - taxes from the collection of natural resources such as crayfish are paid to 1 *fokontany* (3 villages) - taxes from the marketing of agricultural products (ginger) are paid to 5 *fokontany* within 2 communes - taxes from ecotourism profits are equitably shared among involved local communities	The introduction of new taxes was applied to the added-value products that were developed with the project support. In 2007, developed taxation plans benefit 15 *fokontany* and 2 POIC. Taxes are imposed on the following products and services: ▪ Ginger, organic red rice, farm products, wood – on which taxes are imposed and paid to communes and *fokontany* (Ginger : 22 000 MGA paid to 3 communes ; rice : 20 000 MGA paid to 1 *fokontany*) ▪ Charcoal – on which taxes are imposed at the *fokontany* level and paid to communes, ▪ Toll – imposed at the level of communes, 10 229 500 MGA paid to 3 communes and one POIC, ▪ Ecotourism –191 000 MGA contribution paid directly to the *fokontany* from guiding revenues only as the restaurant was closed. In 2006, 304 500 MGA were paid from guiding and catering revenues. The strategy to improve toll and tax collection and management on all forest products (fixed basis) was standardized among communes on the eastern and western sides of the corridor. Tax rates on farm products (quantitative basis) were standardized. The project and POIC introduced a system to allocate tax revenues from forest products to fund recurrent monitoring costs for forest patrols and control.	**S**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
Indicator 5: Two years from Project start, the private sector works in close collaboration with 10 villages in tourism, development and income-generating projects	7 private operators are involved in the development of 4 income generating projects: - Ecotourism is developed with the private sector (restaurant Kudeta) involving women and guides' associations in one *fokontany* (5 villages), in which local communities have been trained and given support in the fields of catering and accommodation. - Tourism is being developed with 4 private tour operators: Nouvelle Frontière (the most important in the country), Tany Mena Tours, Oceane Aventure, and Boogie Pilgrim, in collaboration with 1 *fokontany* (3 villages). - 5.6 tons of ginger were sold through the project to Parapharma company, involving 5 *fokontany* in 3 communes (80 households in approximately 30 villages) - Sustainable harvest of freshwater crayfish in 3 *fokontany* (10 villages, 15 households) – collected and sold on a weekly basis to a well known restaurant in the capital, La Boussole.	Private operators previously involved in the development of income generating projects for local communities have maintained their involvement. New operators have supported producers' organization, and ginger and red rice organic and fair trade labelling and marketing. <u>Community ecotourism project with Antsahabe *fokontany*:</u> Capacity building for the staff (all from the village) generated 26 full-time jobs. Infrastructure construction created part-time jobs for 140 people for 9 months. Supplying the restaurant with local fruits and vegetables will possibly be another source of revenues for the community. Operations should start by August 2008. Itineraries describing main tourist attractions between Antananarivo and Antsahabe and in the vicinity of Anjozorobe were developed for guide drivers accompanying tourists. Reservations and visit organization with 3 tour operators: Nouvelle Frontière sent more than a hundred clients at the end of 2006 through Océane Aventure and made reservations for about twenty groups of 18 people on average until the end of 2008. Tany Mena tours (Air France) sent a letter of interest. Boogie Pilgrim is working in collaboration on the basis of the reciprocal use of facilities for circuits that link both sites. <u>Marketing of organic ginger:</u> 12 tons of ginger were collected, processed (dried) and marketed with a private company. A producers' association grouping together 140 households from 6 *fokontany* was created in 2007. It is expected that 25 tons will be collected in 2008.	**HS**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
		Marketing of organic red rice: In 2007, collection from 40 households within a *fokontany* and marketing of 700 Kg de organic red rice (purchase price increased by 20% in comparison with the local market), with 10 retailers located in the Analamanga region. Harvest and sale of freshwater crayfish Freshwater crayfish exploitation in streams was suspended in 2007 according to the recommendations of the study and monitoring on their production capacity.	
Indicator 6: A three-tiered natural resources management structure implemented with full participation from local communities	*Fokontany* are the elementary project operational level, in particular regarding land use planning and natural resource management. Following the awareness campaigns conducted by the project, the heads of 39 *fokontany* supported by the officials from State decentralized services and local governments are taking on their responsibility in conservation management, and are actively involved in elaborating development and management plans.	Level 1: 33 local committees contribute to the natural resource comanagement process within the 32 *fokontany* whose land is partly included in the protected area over the 39. 200 members of these local conservation committees continue undertaking systematic forest inspections and surveillance patrols as a result of the training on forest legislation, surveillance and participatory ecological monitoring provided by the project *Fokontany* remained the elementary project operational level for land use planning and natural resource management throughout the project. Community members and authorities testify that decision-taking was always consensus based, after a clear explanation of the constraints and benefits of various options. At the time of the final elaboration of the development and management plans, an operational structure in charge of the implementation and monitoring of the plan will be identified at the level of the *fokontany*. This structure is likely to differ among *fokontany* since it will be identified by the *fokonolona* on the basis of the	**S**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
		effective mechanisms in the *fokontany*. Level 2: The training of POIC members has enabled the identification of development priorities which are presented as brief pilot studies and facilitate requesting funds with donors and national financing programs (PSDR, ADER). The project and POIC introduced a system to allocate tax revenues from forest products to fund recurrent monitoring costs for forest patrols and control. According to POIC status, 2 annual meetings are planned for preparing the annual work plan and for the annual report. In fact, monthly meetings are held to deal with specific subjects such as those related to the protected area management. Every POIC includes an environmental commission in charge of organizing unforeseen cross-controls (surveillance committee from one *fokontany* carries out a control mission in another *fokontany*). The POIC commission coordinates such cross interventions to avoid that dissensions arise within *fokontany*, sets the schedule, allow money for allowances, including transportation.	
Additional indicators (not planned in the project document)			
Ecological indicator Water resources		Local authorities and communities testify to a significant increase of water resources, of a reduction of the number of water management-related conflicts due to an increase in water supply in rice fields, and attribute it to the forest preservation due to the active repression of *tavy* offences. Yet, this inference follows from an erroneous perception of the hydrologic benefits of forests (this	--

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
		aspect is further explained in section 5.1).	
Pressure indicator Fire incidence		Data on fire incidence obtained for the years 2001 to 2007 through a satellite detection system (Fire Alert) show that fire incidence increases much more slowly inside the protected area in comparison with the sharp increase of fire detection in neighbouring areas. Cartographic data make also stand out a lower fire incidence on the edge of forest units located inside the protected area in comparison with forest units located north and south of the protected area, thus in a comparable ecological and socioeconomic environment.	**HS**
Socioeconomic indicator Association and household income generated by each activity		Ginger 2006: 13,500 MGA / household (on average) 2007: 17,143 MGA / household (on average) 2007: 2,000,000 MGA for the Miray Association Red rice 2007: 20,604 MGA / household (on average) These incomes vary according to each household's production, and, as for rice production, only apply to producer households that are members of the local association.	**MS**
Overall assessment of objective achievement			***S***

Note: The project progress is rated according to the following indices: ***HS*** *- highly satisfactory,* ***S*** *- satisfactory,* ***MS*** *- marginally satisfactory,* ***MU*** *- marginally unsatisfactory,* ***U*** *- unsatisfactory,* ***HU*** *- highly unsatisfactory*

4.2 Achievement of the project expected results

Table 5. Project progress with regard to the expected results, and assessment of progress

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
R 1: A reliable and updated socio-economic and ecological database on the forest corridor is used as a decision-making tool by local and regional authorities			
Indicator 1: The GIS database including biological and socio-economic information on the Corridor is established	Data collection was carried out in 39 *fokontany*. Biological and ecological data on the corridor flora were made available through a detailed study completed by MBG. A study undertaken by WWF will provide biological and ecological data on the corridor fauna; the results from this study are not available yet. The delay in producing this study has not yet been brought to the attention of the steering committee. The database integrates the major part of data currently available for the whole project site, except for data from the flora study that will be integrated in 2006, at the same time as the fauna data. The information from the database, which has been updated by the project until now, is used for operational management by various stakeholders through their commune. The fact that data from the study conducted by WWF are not yet available prevents from determining a baseline status for species targeted by the creation of the protected area. This study would have been more useful if it could have been completed before the project start, for instance, under a GEF PDF funding to identify the project impact indicators and determine the baseline status. The	Database development and map-making The database incorporates all biological and ecological data from WWF and MBG completed studies and socioeconomic data. The map and the data were integrated in the regional development plans of the 2 regions. The following layers of information were acquired from FTM for all communes: vegetation cover, geomorphology, streams, demography, roads and paths, and all settlements (*fokontany*, villages, hamlets and camps). The preciseness of these data is much lower than for those extracted from the satellite image used by the project, and overlaying both types of information brought out the lack of precision of the administrative boundaries. Cartographic data must still be revised according to: – Correction and fitting of communes and *fokontany*'s boundaries (in progress), – Fine delimitation of the core of the protected area (linked to the final elaboration of the development and management plans with *fokontany*), – Production of the local land occupation plans, – Integration of the map and information taken from the satellite image and the database. The usefulness of socioeconomic data related to production activities for documenting the baseline required in the socioeconomic impact study and the elaboration of the	**S**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
	implementation of an ecological monitoring system one year and a half before the end of the project will not enable assessing the specific impacts on conservation of fauna and flora species in the protected area and of the implementation of development and management plans for the lands of local communities. Delimitation of land occupancy, based on a cartographic tool acceptable to the State Property Department in charge of land tenure issues, was made possible through the acquisition of a high resolution satellite image	Safeguard Plan is restricted by the following points: – Agriculture and cattle rearing are the only documented activities, other activities are identified but the income it generates is not mentioned. – Baseline data on household income, per type of activity, is not available. – As it is currently structured, the database does not allow for adding annual sheets to follow the evolution of a given situation. – Consulting the database requires technical capacities and is not currently available to all partners. <u>Putting information at decision-makers and partners' disposal</u> Maps produced for every commune and updated in 2007 when the satellite map was acquired, indicate localities in which priorities were identified (such as the construction of irrigation dams, schools, wells and fire-hydrants, base health centers, or recruiting teachers according to the number of schools or medical staff for base health centers. These maps were handed to the mayors. It is planned that data will be handed to all *fokontany* in the form of a map or a booklet, once commune and *fokontany*'s boundaries will be corrected (previous to finalizing the development and management plans)	
		<u>Ecological monitoring</u> The purpose of the ecological monitoring is to have access to the information needed to ensure the sustainable management of natural resources and biodiversity conservation, provide basic data for agricultural activities, and monitor the project impact on natural resources. The monitoring plan suggested in the project document was never actually implemented for various reasons, of which the unavailability of biological surveys. A new protocol was elaborated in 2007. It includes: – A weather station	**MU**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
		– Water flow measurement – Fires incidence – Logging incidence – Tree fern trunk harvesting incidence – Lemur distribution and abundance – Freshwater crayfish distribution and abundance Only one reliable datum on water flow could be taken over the 3 pilot sites that were identified in 2006 following the midterm evaluation recommendation. This task had been given to community members, based on a simple method and training; however collected data but one were not probable. Data on fire incidence are obtained through the MODIS alert system on fire incidence from Maryland University using satellite detection. Data are transferred to *Google Earth* cartographic system which allows exploiting the data. The project processed the data from 2001 to 2007 for an area that includes the protected area, thus allowing the comparison of the fire incidence evolution inside and around the protected area. A methodology to collect data, based on position determination technology, using high precision but simple to use equipment (GPS *logger* and digital camera), was developed by a trainee in 2007. It allows collecting position data along a route marked out according to target natural resources, which will be coupled to handwritten data and photographs. Data are then transferred to *Google Earth* cartographic system for their exploitation. The rate of forest cover loss (Surface of cleared natural ecosystem in relation to the corridor total surface) was one of the indicators in the initial ecological monitoring plan, but it could not be estimated by the end of the project to be compared to the baseline forest cover estimated in 2004 at	

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
		33,400 ha inside the future protected area.	
Indicator 2: Data are analyzed and results are discussed with local communities and local government, being used as a basis to raise awareness and for participatory planning and implementation	General land use maps are available for all *fokontany* involved (39) and detailed land use maps were completed for 6 *fokontany*. Detailed management plans were produced for 6 *fokontany* on the basis of the data made available to communities as a decision-making tool and to contribute to the improvement of community-level agricultural production. The delay in knowledge production regarding the fauna in the corridor has impacts on the elaboration of the *fokontany* management plans, which should take into account the flora and fauna present on their land. This keeps communities in a state of uncertainty regarding the land plots that they may use for cultivation, which is worrying at the approach of the growing season and, therefore, has an impact on their involvement in the forest surveillance. Effective use of data by the three-tier structure to manage the land in its entirety, including the protected area, will be possible by the end of 2007. The effects of rehabilitating the dirt road (East of the forest corridor), and of establishing producer's economic interest groups with the project support, were assessed with local communities. The map, data, and management plan were integrated into the Regional Development Plans of both Regions concerned by the project, in order to bring about synergies between the	Partners Acknowledging its validity and exhaustiveness, the database developed by the project and the satellite image are used by administrative partners (regions, districts, communes and *fokontany*), international NGOs (WWF, WCS, MBG), concerned MEEFT staff, national organizations and institutions (ONE, ANGAP, ONT), national sector-based projects (FID, PSDR), and the private sector for the development of organic farming. Mayors Maps and information on the *fokontany* in the neighbourhood of the protected area enable mayors to communicate intervention priorities to representatives of ministries, national sector-based projects, and donors to identify community projects at the time of mayors' monthly meetings in each district. Training of mayors on the use of the database was delayed until the elections, following the principle that capacity building efforts must target actors who are likely to remain appointed for a minimum period. In addition, future trainings will also target commune technicians whose appointment is not challenged with every communal election. Mayors and heads of *fokontany* All newly elected mayors and heads of *fokontany* nominated by these mayors benefited trainings on local development provided by the Republic Presidency, among which the implementation of the "RRI" methodology which identifies tangible results to achieve within 120 days. Such recognition gives the heads of *fokontany* the opportunity to take part in the decisions about the development of their ward. One of the "RRI" chosen by the communes of the 3 districts was to increase the tax revenues and each commune had to define its own strategy to achieve this result. Following this training, the 3 POIC supported by their region, heads of *fokontany* and mayors asked Fanamby	**HS**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
	project's operations and investments with those of regional authorities. Distribution of the project's periodical reports to the steering committee members, including mayors and heads of regions and districts, fostered the development of ownership over the forest.	for using the project database as a basis for the census as it contains all demographic data and land plots delimitation from the satellite image. As a result, tax revenues have sufficiently increased to allow them to acquire computers, printers and generators, and to maintain their infrastructures (ex. offices, road markers in villages, finishing classrooms in a high school). Developing communes' autonomy regarding such investments is important since State financial resources are mainly earmarked for operations. In acknowledgement of the East POIC's performance, the Region offered them a television as an incentive measure. POIC The databases developed by the project will be transferred into POIC computers to serve as tool for using cartographic information for the land tenure office. The computer equipment required to implement the database was acquired by 2 POIC and purchase is under way for the 3rd POIC. Using the funds generated by the tax system, two POIC acquired generators to ensure electricity supply.	
		Rural newspaper At the Eastern POIC's request, which lacks adequate means of communication relevant to the local population's daily concerns, a rural newspaper was edited and published with the idea to give support to and educate local communities to enable them to follow all project interventions. This rural newspaper could contribute to support and stimulate information exchange between the community and the protected area technical committee. Articles on various subjects, aside from the protected area and environment, are included to cover socioeconomic issues (health, education, infrastructure maintenance, etc.). Setting up this means of communication and rural information started in March 2007 with the identification of 52 local volunteer informants (*mpanangom-baovao*) within the communities of all *fokontany* of the communes in the POIC,	

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
		including those that are not involved in the project. These *mpanangom-baovao* were supported by the project with office material and with trainings on writing articles for a rural context (accessibility and subject relevance). They thus developed the capacities needed to write articles which are captured by the POIC's staff, and then sent to the project for editing and printing. The project bore the printing costs. Two numbers of the Rural newspaper in two different versions were produced in June and December 2007 (after the communal elections): an illustrated color version is sold with the idea to perpetuate its production and a more exhaustive black and white version is posted in every *fokontany* and large community. Next number is expected in April 2008. This rural newspaper is currently published in one of the 3 POIC and its development is too recent to assess its impact with communities.	
Overall assessment of result 1			**S**

Note: The project progress is rated according to the following indices: ***HS*** *- highly satisfactory,* ***S*** *- satisfactory,* ***MS*** *- marginally satisfactory,* ***MU*** *- marginally unsatisfactory,* ***U*** *- unsatisfactory,* ***HU*** *- highly unsatisfactory*

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
R 2 – Creation of the First Regional Forest Reserve to serve as a model that may be adapted to other regions. Reformulation by the project: **The protected area is created to serve as model to be adapted to other regions**			
Indicator 1: The Conservation Site boundaries are defined based on socio-economic and biological data collected during the project implementation.	The delimitation carried out to obtain the protected area temporary protection status was carried out following a participatory approach and included the 3 following steps: - Information and awareness campaigns, and consultations with all communities, which led to the signing of voluntary agreements by 39 *fokontany* as well as by private land owners. - A physical delimitation of the area was conducted with the services from *Eaux et Forests*, under the supervision by DIREEFs of the 2 concerned provinces (Antananarivo and Toamasina), heads of each concerned *fokontany* and representatives from local communities. - Two meetings to report back the outlines were held in Anjozorobe and Mandialaza, which were attended by all concerned parties. The participatory delimitation of the future protected area (52,200 ha) with local communities from concerned *fokontany* (39) enabled them to integrate the boundaries of the protected area. Maps of the protected area were produced. Meetings to report back the outlines allowed collecting and taking into account complaints and additional information from all concerned communes (13) and districts (3). The exact on site boundaries must be further defined relatively to the boundaries of provinces, communes, and *fokontany* so as to determine the	Following the temporary delimitation, the surface of the protected area is 52,200 ha of which 28,000 ha of natural forest. The development plan projects 3 zones: a strict preservation core area over 12,900 ha, an area consisting of state land allowing a controlled occupation (villages and hamlets) and a sustainable resource use of 36,808 ha (scientific research, rights of use and tourism), and 2,492 ha of allocated land (Croix-Vallon private estate, Beorana lease management, and management rights transfer in Ambohimanatrika). The participatory mapping of land occupation and elaboration of basic sustainable management rules were completed for 38 *fokontany* with a view to finalize and validate the development and management plans. One *fokontany* that benefited a management rights transfer should have elaborated its development and management plan by the end of April. Another *fokontany*, that had requested a transfer of management rights to exploit the forest, refused to elaborate its development and management plan. According to the "*cantonnement*" head, this request was rejected. It is thus possible to resume the process leading to the elaboration of the development and management plans since the *fokonolona,* as it witnessed the negative impacts of the environmental degradation on the population livelihood in a neighbouring site, is convinced of the importance of protecting the forest corridor. The cartographic delimitation which is used as a reference for the provisional protection order ought to be revised for the final decree following the fine delimitation of the protected area boundaries. This process will include	**S**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
	respective management responsibilities of these administrative units.	○ Correction and fitting of *fokontany*'s boundaries (in progress), based on negotiations among *fokontany* and confirmed at the district level. ○ Negotiations with local communities on the fine delimitation of the core of the protected area at the time of the final elaboration of the development and management plans with *fokontany*). ▪ Participatory conception of the technical development and management requirements. ▪ Correction of administrative limits (communes and districts) by districts and Topographic and State Property departments. The correction of administrative limits needs to be done for the following reasons: ▪ discrepancies in the official commune boundaries in the 3 districts, ▪ the need to match administrative limits with the natural limits which are the landmarks actually used by communities to identify boundaries. Thus, the definitive surfaces for the core zone and the sustainable use zone will likely be modified through this process.	
Indicator 2: A Conservation Site and multiple-use areas are set up within the Anjozorobe–Angavo Forest Corridor	The sustainability of various resource uses was assessed, and the analysis of the condition of various habitats in the corridor was undertaken. The order (*arrêté*) 20.023/MINENVEF – 2005 specifying the protected area temporary protection was signed on 30 December 2005. It relates to 52,200 ha of national land and a private land plot of 1,300 ha. It is based on the provisional delimitation: - Of a priority conservation area or core area that will become a category II protected area	The order No 380/2007/MINENVEF extends the order No 20-023/2005-MINENVEF relating to temporary protection of the protected area being established for a 12 month period. Article 2 of the order No 380/2007/MINENVEF specifies that the provisions of the temporary protection order remain applicable. The delegation contract for the management of the protected area which designates Fanamby as the manager was effective for a two year period from 30 December 2005. However, the MPAS commission is currently drawing up an order which will extend the management delegation contracts for various protected areas which currently have a provisional	**S**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
	(Natural park) covering 12,900 ha, i.e. 25% of overall protected area, and - Of a sustainable use area, which is similar to a buffer zone as defined in the COAP, and which covers a surface area of 39,300 ha, i.e. 75% of overall protected area – this zone will likely correspond to a category V (IUCN) protected area. Detailed management plan of the protected area, as well as the management system, are expected to be ready for submission in 2007 to secure the definite protection status.	status and which temporary protection period will expire once protected areas will be gazetted. A separate order will define details and validity period for the management delegation agreements. In accordance with the MAP, the country committed to increase protected area surface to 6 million of hectares. This led to a revision of the strategy for creating protected areas under a new type of governance which recognizes local community involvement and the integration of their activities in the protected area. The final setting up of the protected area must conform to the new legislative framework governing the creation of new protected areas. The definitive creation thus depends on: ▪ Officialization of the legal provisions governing the new protected areas (including the IUCN category V), ▪ Finalization of the development and management plans (Officialization of administrative boundaries, final participatory delimitation of the protected area and zoning) in accordance with the newly adopted legal provisions, ▪ Identification of land owners by the Topographic department in 2 districts, ▪ Compliance with the latest instructions regarding the creation of new protected areas (based on the preliminary version of procedures): ➢ Presentation and acceptance of the EIA (including the environmental and social management plan which is part of the development and management plans), ➢ Preparation, presentation and acceptance of the Safeguard Plan, ➢ Participatory selection of the local criteria to identify the PAP, ➢ Social census of the PAP, vulnerable populations and eligible communities, ➢ Compensation plan and budget,	

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
		▪ Preparation, presentation and adoption of the decree for gazetting the protected area. <u>Planning for multiple use zones</u> This planning (management rules detailed in the terms and conditions for each level of the management structure) is carried out on the basis of a Ikonos 1-meter resolution satellite image, taking into account: 1. community needs (ex : household and community needs for timber and firewood, needs for food and medicinal non-ligneous products, future generation needs), 2. availability of resources, 3. compliance with legal texts. The rules related to natural resource sustainable management are likely to be about the following aspects: fires and clearings, harvest/collect zones, use of food and medicinal plants, harvest of freshwater crayfish, honey harvest, water management for supplying water to rice fields, etc.	
Indicator 3: A methodology for the implementation of the Conservation Site is established in other regions.	Process followed to submit a project for a provisional classification of a protected area, based in priority on negotiation and community consultation - Has served as a model for classifying 2 other protected areas in Fanamby's intervention sites, - Has enabled two organizations (MBG – UNESCO/World Heritage and CEPF) to benefit from the experience and lessons learnt during the process followed by the project.	The temporary protection order and the management delegation contract were transferred as models to all actors who are setting up protected areas in the Madagascar Protected Area System (MPAS) framework. The MPAS also plans to draw lessons from the experience acquired through the approach adopted by the project to set up new protected areas. Fanamby team does not have a summary of the experience which would make easier the adaptation of the approach to other sites, except for presentations (PowerPoint format) which supported informing MBG, UNESCO, and other actors on the process followed.	**MS**
Indicator 4: Collaborative community-based forest patrols set up for the	Community-based forest patrols were set up. 16 forest patrols from 8 local conservation committees related to 8 *fokontany* are conducting	22 forest patrols of 14 local conservation committees in 14 *fokontany* carry out forest inspections and systematic surveillance patrols.	**S**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
Corridor	forest inspections and systematic surveillance patrols. It will be possible to assess the effects of this mobilization in 2006 by the acquisition of data that will allow mapping fires on an annual basis and determining their surface area and number. The interviews held during the mission already allow highlighting several positive effects from actions by these patrols, i.e. decreasing number of offences, of uncontrolled fires, and of illicit loggings and clearings, and an increasing flow rate of springs.	Targeted control missions are conducted almost continuously during the clearing season from August to December and, during this period, 3 to 4 reports are transmitted to communes per month so that they could intervene and refer the case to the police force. An individual was jailed in 2008 for clearing the natural forest inside the protected area. In many communities, the fear of reprisal, in a context where they all know each other, was mentioned as a factor constraining the efficiency of community surveillance and the transmission of written information in which offenders are identified. Nevertheless, training provided by the project and the fact that some cases were followed by repressive measures and legal proceedings, reinforced surveillance committees self-assertion and confidence in carrying on their duties, and are likely to discourage offenders.	
Overall assessment of result 2			**S**

Note: The project progress is rated according to the following indices: ***HS*** *- highly satisfactory,* ***S*** *- satisfactory,* ***MS*** *- marginally satisfactory,* ***MU*** *- marginally unsatisfactory,* ***U*** *- unsatisfactory,* ***HU*** *- highly unsatisfactory*

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
R 3 – An adaptable model for a three-tier participatory natural resource management plan is set-up and operational at local and regional levels			
Indicator 1: The first level management committee is set up and tested in 5 *fokontany*.	Capacities for enforcing forest legislation were strengthened: 33 local conservation committees were set up in the 32 *fokontany* surrounding the forest (a few *fokontany* do not use the forest) to support the enforcement of the forest legislation.	The local management structure set up in the context of the provisional order, the forest surveillance committee, was maintained. Its main mission was the surveillance of the forest corridor. Capacities of 33 local conservation committees in the 32 *fokontany* neighbouring the forest were developed for participatory ecological monitoring, forest legislation and for carrying out joint patrols.	**S**
Indicator 2: Three-tier management structure set up	The management structure was set up for 2 levels : - Operational structures for 34 *fokontany* (5 *fokontany* do not use the forest) (level 1) - Inter-commune structures for 3 POIC (one per district) grouping together mayors on the basis of issues they truly share (level 2). Capacity building activities were carried out for the members of these structures. It is planned that the 3rd level corresponding to the inter-district territorial committee will be set up and operational by mid 2007.	1st level: Local surveillance committees: The first level management structure was appropriate and operational regarding the current status of the protected area, i.e. the surveillance committees, which were maintained throughout the project. At the time of the final elaboration of the development and management plans, an operational structure in charge of implementing and monitoring the plan at the level of the *fokontany* will be identified by the *fokonolona*. This operational structure is likely to differ among *fokontany* since it will be identified on the basis of the effective mechanisms in the *fokontany*. 2nd level: Communes and POIC: The role of communes in the protected area management structure is ▪ To formalize decisions regarding natural resource management by the preparation of orders, and to circulate the information regarding this decision with communities of all *fokontany* in the commune; ▪ To receive *fokontany* surveillance committees reports (level 1), to record offences, and to call on POIC to hold a	**S**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
		meeting to transfer the case to court in the name of the POIC, when needed. The POIC environment commission will keep track of the case. Operations for which POIC are responsible in the framework of the protected area management are the following: ▪ Control of forest products carried through the commune barriers: taxation and verification of products' origin; ▪ Transfer of disputes (particularly related to fires and wood trafficking which are ruled by the criminal code) to the court; ▪ Standardization of measures (taxes and fees, allowances for the committees in charge of surveillance, decisions relative to natural resource management) ; ▪ Identification and mobilization of sources of income to cover the expenses involved in the enforcement of legal measures related natural resource management (demonstrations for the environment, forest restoration and surveillance, and dispute settlement) Communes and POIC's terms and conditions will be included in the protected area development and management plan. These terms and conditions will detail further: ▪ The exact delimitation of the territories over which communes and POIC will exert their competence, ▪ The financing mode (financing plan and budget), ▪ The roles and responsibilities regarding the protected area management. 3rd level: Territory committee Up to now, the role of this committee was entrusted to the project steering committee. However, the exact and definite design of the management that will be operated at that level was postponed till now in the absence of a clear reference framework:	

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
		▪ Although the importance of regions is recognized by all actors in Madagascar, the role of the region in natural resource management is not yet clearly defined (regions were only established in 2004 – regions are bound to become decentralized (elected) structures while Heads of Regions are still nominated by the Presidency and the laws regarding the Region are still in preparation. ▪ Functional links between regions and deconcentrated services are still not well understood: it is not known whether the region's competence will be repression, decision, legality control or coordination ▪ The MPAS, which should govern the structure and management of category V protected areas, has very recently defined the framework for setting up and managing the new protected areas of which the Anjozorobe – Angavo protected area. Formalization of the protected area and its management cannot precede the formalization of the definitive status for the new protected area categories. ▪ *Fokontany* development and management plans are not yet completed.	
Indicator 3: The management structure is operational.	Level 1: 200 members of local conservation committees undertake systematic forest monitoring and surveillance patrols as a result of the training on forest legislation and monitoring provided by the project. Targeted control missions are conducted twice a month by local conservation committees, together with elders who inform them on offenses noticed by the population. The election of new mayors and their advisors in March 2007 presents a risk for the sustainability of project investments to develop POIC's capacities. Now, commune-based technician	Level 1: See the indicator 4 of Result 2. <u>Operations of levels 1 and 2 in forest surveillance and control:</u> In 2005, 6 controls were carried out with the "*quartiers mobiles*" and the national police force on mayors' request. In 2006, 3 series of forest controls were carried out, involving all eastern *fokontany* and 10 *fokontany* from 4 western communes. From these operations (2005 and 2006), around ten reports were transferred to communes and were followed by occasional controls by communal polices and/or gendarmes. In 2006, a strategy for the forest corridor control and surveillance was defined with the DIREEF. It includes:	**S**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
	positions were created in the 79 communes of the Alaotra-Mangoro Region in July 2006. In order to ensure some sustainability of investments in capacity building within communes, the project contributed to develop the technicians' capacities in 4 communes by providing training in project development.	○ monthly controls carried out by local conservation committees, ○ quarterly controls carried out by "*cantonnement*" heads, ○ mixed controls carried out by the Gendarmerie brigades, Eaux et Forêts services and communes, ○ unexpected controls organised by the *Directions* and *Circonscriptions* of *Environnement, Eaux et Forêts*. The strategy developed with the DIREEF was implemented in 2007: a mixed control was undertaken by the Anjozorobe gendarmerie, the *Eaux et Forêts* service and communes; two forest controls were carried out by the "*cantonnement*" heads; monthly controls were carried out by local conservation committees. The same year, 6 cases issued by *fokontany* were transmitted to communes among which two were transmitted to the court. Due to the controls carried out by the "*Quartiers Mobiles*", the Eastern POIC could transfer 3 cases to the gendarmerie and to the court. Controls carried out by the national gendarmerie were mostly related to the illegal logging inside the protected area, in the Ambilombe *fokontany* of the Antaniditra commune. Agents were identified and, at the time of the evaluation, the case was about to be handled by the court of Moramanga. Although the violation had been confirmed in the presence of Fanamby, gendarmes and DIREEF, the statements made about the importance of the illegal harvest varied from one report to another from 12,000 (police report on illegally logged wood) to 1,500 timbers (seized amount). Seemingly, a management right transfer allowing wood exploitation had been attributed to a VOI by the *Eaux et Forêts* services in August 2006, even though the temporary protection order had been adopted by the same ministry in December 2005. The inconsistency was attributed to differences in the precision levels of the reference documents used by the project for the delimitation of the protected area, and those used by the *Eaux et Forêts* services	

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
		for the delimitation of the resources concerned by the management right transfer. POIC operation According to POIC status, 2 annual meetings are planned for preparing the annual work plan and for the annual report. In fact, monthly meetings are held to deal with specific subjects such as those related to the protected area management. Every POIC includes an environmental commission in charge of organizing unforeseen cross-controls (surveillance committee from one *fokontany* carries out a control mission in another *fokontany*). The POIC commission coordinates such cross interventions to avoid that dissensions arise within *fokontany*, sets the schedule, allow money for allowances, including transportation.	
Indicator 4: A methodology for setting up a protected area is developed for other regions.	The process followed for the Anjozorobe–Angavo corridor to submit the application for provisional protection and to devise the management plan with active community participation was adopted for two other project sites of Fanamby, i.e., the protected area of the Ankeniheny–Zahamena corridor and the Makira protected area.	The temporary protection order and the management delegation contract were transferred as models to all actors who are setting up protected areas in the Madagascar Protected Area System (MPAS) framework. The MPAS also plans to draw lessons from the experience acquired through the approach adopted by the project to set up new protected areas. The innovative approach and methodology followed to create and manage the Anjozorobe – Angavo protected area are referred to as a practical experience to improve the elaboration of the legal framework for the MPAS under which new protected areas will be established in several regions. Fanamby team does not have a summary of the experience which would make easier the adaptation of the approach to other sites, except for presentations (PowerPoint format) which supported informing MBG, UNESCO, and other actors on the process followed.	**MS**
Overall assessment of result 3			**S**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
R 4 – A strategic plan for securing land tenure, alternative income-generating activities, and control of slash and burn agriculture practices developed and tested in at least 15 *fokontany*.			
Indicator 1: The system for securing land tenure is tested in 5 *fokontany*	To properly assess the progress achieved by the project on this result, as well as its relevance, it is necessary to understand and refer to the current processes in Madagascar. These processes are briefly presented in Annex 5. The project addressed separately the issue of land tenure security inside and outside the protected area. Awareness activities were conducted within *fokontany* to inform households on processes leading to land tenure security. Communities in 5 *fokontany* have expressed their will to undertake the process as a result of the project's information sessions. **Within the protected area**, the actions on land tenure security are strengthened by the use of a high resolution satellite image put at the disposal of the Topographic Service in Moramanga to develop local land occupation plans together with the communities. The strategy for collaborating with the State Property Department and the Topographic Department was validated. The project has already identified ownership of the cultivation plots within the protected area as well as all communities' requests for land tenure inside the area. However, the identification of delimitation and ownership of the plots must still be subjected to an additional consultative process to prevent any potential dispute. These plans will then be integrated in the protected area management plan which will ensure their legal	The same procedures were followed.	**S**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
	status upon the definitive creation of the protected area. For land plots located inside the protected area, the project will enable establishing relative land tenure security, since it will be implicit in the development plan of the protected area, which will be the legal basis of this security. **Outside the protected area**, the actions on land tenure security may follow two procedures: the classical procedure of the public services, and the new procedure of the National Program relating to Land Ownership (*Programme National Foncier*). The project supported 62 households inside one *fokontany* to follow the traditional procedure to obtain tenure rights for 86 land plots. The other procedure adopted by the project parallels the one in PNF, in the absence of a land tenure counter. It is worth mentioning that, due to their very high setting up and operation costs (first 3 years: more than US$ 100,000), no more than 4 or 5 land tenure counters are set up and operational in Madagascar. The high resolution satellite image provided by the project enables the preparation of local land occupation plans that are used to seek a consensus with local communities in a *fokontany* on land delimitation and ownership. The ratification of the consensus by the head of the *fokontany* and the Mayor of the commune provides a legitimacy equivalent to that provided by a land certificate and enables issuing land titles. The project will thereafter support local communities in submitting their applications to the State Property Department to		

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
	secure land titles. Regarding the plots located outside the protected area, the project first targeted *fokontany* at the immediate periphery of the protected area to decrease the pressure caused by clearings for agricultural land expansion, which is aggravated by land speculation. It is not certain yet whether the approach followed by the project will allow for the issuance of certificates or just facilitate and contribute to the issuance of certificates should land tenure counters be set up. Beneficiaries are participating by paying the costs for issuing the plans of the land plots for which land tenure applications are made. This participation often entails time delays in the procedure, which do not depend on the quality of the project performance.		
Indicator 2: Strategies for securing land tenure are implemented with collaborative partners in 15 *fokontany*	Strategy is developed on the basis of land use maps, elaborated and validated by local communities, in accordance with the protected area management plan. 10 *fokontany* are involved in the preparation of local land occupation plans for part of their plots.	According to an agreement established between the PNF and Fanamby for implementing the process leading to land tenure security in the project zone, Fanamby helped along with financial support, put tools such as the satellite image and computer equipment at the disposal of the land tenure offices and the PNF provides the legal and technical backing. Commune land tenure offices are currently being established with the collaboration of POIC and PNF. Putting emphasis on sustainability, the project team considers that communes must contribute to land tenure offices operating costs as these are communal services. Since most communal agents have just taken up their post, it is necessary to raise their awareness and to inform them on this process. A new structure based within the POIC, the resource center for	**S**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
		land information (*Centre de Ressources en Information Foncière – CRIF*), was conceived to support land tenure offices (based within communes). The resource center processes the geographic information and the production of the land plot plans. The land tenure office acknowledges and authentifies land plots boundaries and issues the land certificates elaborated by the resource centers and signed by mayors. The project and the concerned communes supported the implementation of 2 resource centers (Mangamila and Mandialaza). The project provided the satellite image, computer equipment, and a printer-photocopier, but operation costs are not secured nor electricity supplying. 38 out of 40 *fokontany* already have their local land occupation plan: delimitation of land plots and identification of owners. The delimitation of the land plots occupied by every member of the *fokontany* is based on a consensus with the local community and is transferred to the development and management plan, which imparts a legitimacy to land occupation. Collaboration with topography services has resulted in the identification of parcels (on request) inside the protected area over 12,227 ha in the Antananarivo district, over 3,174 ha in the Moramanga district and for 60 requests in the Manjakandriana district. The legalization of land occupation is a matter for the land tenure offices and depends on people's will. The project can only bring its support to the establishment of the land tenure offices and raise local communities' awareness about the benefits of land tenure security. Should an external demand occur, the acquisition of land titles would provide the legal frame to defend the farmers' rights.	
Indicator 3: All 40 *fokontany* have implemented strategies	It will not be possible to reach the target to implement the strategies for land tenure security in 40 *fokontany* by the end of the project for the	The comment formulated for the midterm evaluation remains appropriate. 2 POIC grouping 9 of the 14 communes concerned by the	**S**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
for securing land tenure	following reasons: ▪ Time required by the various steps that must be followed ▪ Availability of the concerned services that must contribute to it ▪ Time needed to follow a participatory approach where local communities are effectively involved in the establishment of local land occupation plans. The project team is realistically foreseeing that 15 *fokontany* will be involved in the land tenure strategies. Only a fraction of the land plots in each *fokontany* will get some support that may possibly lead to land tenure. Indeed, land tenure requires obtaining land titles, whereas the project will, at best, only support securing land certificates. Land certificates issued by the commune serve as a basis to the latter for census and electoral list constitution, but also for tax collection. For this last reason, it is likely that some people are showing little interest in undertaking the procedures required to secure land certificates.	project committed themselves to carry on with the implementation of this strategy with the project support, which turns out to be particularly important for the *fokontany* located outside the protected area. According to the project experience, processes leading to land tenure security take much time, as they are a matter for many actors and steps on which the project has little or no hold. 1. Since land tenure offices competency is about non titled private properties, the identification of lands which already have a legal status by the State Property department is a step that cannot be overlooked and that is preliminary to processing the communities' requests to acquire land. Now this step remains difficult due to lack of adequate means, degradation and disorganisation of the archives, and the lack of availability of the State Property and Topographic departments. The PNF can only provide support and advice. 2. Land tenure office setting up and operation falls entirely under communes and POIC. The PNF does not have resources to that purpose. Since this setup and operation costs are important, donors intervening in a specific region frequently assume them. However, being concerned about the sustainability of the processes it supported, the project team considered that it was preferable to give communes and POIC this responsibility. The project thus supported initial investments but does not finance recurring office operation costs. A new awareness-raising campaign must be conducted after the communal elections. The PNF collaborates with Fanamby to prepare this campaign which will include training of communal agents in relation to their post in the office, the establishment of the local recognition commission and the recruitment and training of the land tenure office agents. The PNF will provide the training.	
Overall assessment of result 4			**S**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
R 5 – Developing and testing an adaptable and innovative tax system model for long-term sustainable revenue to finance the Conservation Site resource management structures at the local level			
Indicator 1: Taxation system tested in 5 *fokontany* with local and regional authorities taking part	According to the project document, the purpose to develop this taxation system was to institutionalize and perpetuate the surveillance committees, and enable their autonomy, and to finance development activities within *fokontany*. This taxation system was provided for in the finance law which annually sets the taxes and levies to be imposed, as well as the distribution of taxes. However, in the context of the regionalization initiated in 2005, a process for reforming the application of the law regarding tax collection was set up to support commune financing. The project adapted to this context change and is now working in accordance with current processes. Fanamby is, by the way, member of the Inter Ministry Committee in charge of the study on rates and levies related to forest products. The taxation model will not be necessarily managed by local communities, as suggested by the indicator, but will instead be managed at various levels: POIC, communes, associations at the level of *fokontany* and *fokontany*, depending on the resources that are produced or harvested, and the infrastructures used. The taxes levied could also be used to contribute to local development, with a view to ensuring sustainability and cohesion of the processes initiated under the project. Setting up OPCIs enabled standardizing tax rates	New taxes were introduced for added value products developed with the project support. The project carried on with the interventions, reinforced built-up knowledge, and enabled tax collection on a new product, organic red rice. The project and POIC introduced a system to allocate tax revenues from forest products to fund recurrent monitoring costs for forest patrols and control. Tax and fee rates were standardized over the territory affected by the protected area through the 3 POIC. The strategy for improving collection and management of toll and taxes on all forest products (fixed basis) was standardized among communes on both sides of the corridor. Fee rates on farm products (quantitative basis) were standardized. A training session was organised in collaboration with the MPrDAT for mayors and councillors on local tax system and property tax in the context of processes leading to land tenure security, in particular on the utilization of software provided by the ministry to make database management on land easier. After the training, the project and POIC introduced a system to allocate tax revenues from forest products to fund recurrent monitoring costs for forest patrols and control. The POIC recruited 8 additional agents to ensure control and tax levies.	**S**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
	for one same resource or the use of one same infrastructure. A workshop on community-based taxation enabled increasing the tax revenues of communes. Barriers that were put in place on the dirt road which rehabilitation was supported by the project enabled, among others, verifying the compliance of fee payments and ensuring that fees are collected in the locations where natural resource were produced or harvested. Currently, a tax system has been developed and implemented for toll, eco-tourism, ginger, and harvest of natural resources such as freshwater crayfish.		
Indicator 2: Taxation system set up in all *fokontany*	The development of the tax system is dependent on the development of added-value products with the project support. The methods for collecting taxes and fixing their rates (toll and guide rates) were determined through a participatory approach with the communities involved. This scheme was developed for ecotourism with 1 *fokontany* and for toll with 4 communes gathering 14 *fokontany*.	In 2007, the tax system is operational and generates revenues to 15 *fokontany*, to communes and to 2 POIC for the following products and services: ▪ Ginger, organic red rice, farm products, wood – on which taxes and fees are levied and paid to communes and *fokontany* (Ginger: 22,000 MGA paid to 3 communes; rice: 20,000 MGA paid to 1 *fokontany*) ▪ Charcoal – on which taxes are levied by *fokontany* and paid to communes, ▪ Toll – levied by communes, 10,229,500 MGA paid to 3 communes and one POIC, ▪ Tourism – a total of 252,500 MGA (share of the guiding and catering costs) was paid to Antsahabe *fokontany* in 2006 and 2007 to support local conservation and development actions. This last contribution represents a system for the equitable sharing of the benefits related to ecotourism within the local community. Apportioning the revenues is done in a transparent way, according to the rates known in the *fokontany*. However,	**S**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
		there are no rules yet for the management of these revenues.	
	As soon as the collection of harvest based on new seeds and improved techniques (R6: bean, potato, chili, and potentially, charcoal) will be organized, the fees to be levied will be determined based on the rates set by the law and will be included in the first sale price (to collectors). The sharing out between the *fokontany* and the commune will be determined with the POICs to standardize procedures.	The project stopped supporting bean and potato cultivation. These farm products served as an entrance for the project but are less appropriate to serve as a basis for a tax system since they are mainly for farmers' own consumption and cleared on local markets. Nevertheless, it is planned to package and (as for red rice) market beans under the "Sahanala" label developed by Fanamby. Moreover, as these crops are annuals, they require continuous seed inputs. The potato market chain, its production and its market, are not well known and it is difficult to conceive enhancing the value of this product. From now on, cash crops are favoured as source products for the tax system.	
Indicator 3: The local community manages the tax system	The taxation model will not be necessarily managed by local communities, as suggested by the indicator, but will be instead managed at various levels: POIC, communes, associations at level of *fokontany*s and *fokontany*, depending on the resources that are produced or harvested, and the infrastructures used.	Except for tourism and charcoal, taxes are levied by communes and not by *fokontany*, and are paid to communes and POIC. The strategies developed and tested during the project three first years are implemented with POIC, communes and *fokontany*. Funds collected are used to support small local development projects such as school and road rehabilitation, construction of an irrigation dam and to fund POIC operations. Trainings are organized in partnership with the MPrDAT to foster POIC's autonomy and make them aware of their responsibility in tax management and financial planning.	**S**
Overall assessment of result 5			**S**

Note: The project progress is rated according to the following indices: ***HS*** *- highly satisfactory,* ***S*** *- satisfactory,* ***MS*** *- marginally satisfactory,* ***MU*** *- marginally unsatisfactory,* ***U*** *- unsatisfactory,* ***HU*** *- highly unsatisfactory*

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
R 6 – Sustainable harvesting techniques, alternative income-generation activities and intensive sustainable agriculture developed and tested			
Indicator 1: Based on the land tenure system, tax system and resource management models, 12 income-generating projects that are not forest degrading, are implemented by communities and the private sector	The project has developed 6 income-generating activities based on ecotourism, ginger, potato, bean, and chili production, as well as crayfish harvesting. Studies on crayfish enabled identifying measures for sustainable management of this resource, including a minimum harvest size and a closure period to protect reproduction potential. The project is monitoring exploited and not exploited populations in order to assess the harvest impact. Agreements were made with the private sector on ecotourism, marketing 6 tons of ginger, and selling crayfish to a collector based on sustainable harvesting by communities. The project enabled promoting Anjozorobe as an ecotourism destination. The project plans to develop market gardening in connection with ecotourism development and the production of organic rice, which certification process is under way. Sustainable production of quality charcoal is also considered. A feasibility study was undertaken for producing *Ravensara aromatica* essential oil.	Community ecotourism project in Antsahabe *fokontany* (5 villages): Due to the private sector involvement, capacity building for the staff (all from the village) generated 26 full-time jobs. Infrastructure construction created part-time jobs for 140 people for 9 months. Supplying the restaurant with local fruits and vegetables will possibly be another source of income for the community. A business plan elaborated in 2007 includes a financial study and a market analysis with a comparative analysis with a site offering similar attractions and products. Taking into account its assets, infrastructures, standards, community involvement, supervision by the private sector (tourism professionals), and available tourist products, the study concluded that the product should be competitive on the market and meet requirements. Operations should start in August 2008. Reservations and visit organization with 3 private tour operators: Nouvelle Frontière sent more than a hundred clients at the end of 2006 through Océane Aventure and made reservations for about twenty groups of 18 people on average until the end of 2008. Tany Mena tours (Air France) sent a letter of interest. Boogie Pilgrim is working in collaboration on the basis of the reciprocal use of facilities for circuits that link both sites. Other agreements were concluded with the private sector for marketing and enhancing the value of organic and fair trade ginger and for marketing of organic and fair trade red rice. Ginger marketing: Collection of 12 tons of ginger, processing (drying) and marketing with a private society, creation of a	**HS**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
		producers' union involving 140 households in 6 *fokontany* in 2007 – expected collection of 25 tons in 2008. Organic red rice marketing: In 2007, collection from 40 households in one *fokontany* and sale of 700 Kg organic red rice (purchase price increased by 20% in comparison with the local market), with the support of 10 distributors located in the Analamanga region. Harvest and sale of freshwater crayfish: Freshwater crayfish in the streams was suspended in 2007 according to the recommendations of the study and monitoring of the freshwater crayfish production potential. Bean and potato cultivation: The project stopped supporting bean and potato cultivation, and households who had adopted the new varieties and farming techniques have maintained their use. The fact that these crops are annuals is a disadvantage since they require continuous seed inputs. Also, the potato market chain, its production and its market, are not well known making it is difficult to conceive enhancing its value.	
Indicator 2: 12 experimental community management systems (GCF or GELOSE) are operational	The project document had planned setting up experimental community-based management systems based on management right transfers to communities according to GELOSE or GCF processes. This approach will not be necessarily applied since the process for transferring natural resource management rights to communities will be implicit in the territory management and development plan, thereby involving all *fokontany* concerned by this plan. So far, arrangements to prepare planning and management are under way for 20 *fokontany* regarding community-based responsibilities in management. Development and management plans are being elaborated with 10 *fokontany* to	Idem	**S**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
	give responsibilities to communities in the management of the protected area and for the preparation of the decree on the final creation of the protected area.		
Indicator 3: 12 farming demonstration sites using innovative techniques set up in 12 *fokontanys*	The project set up 11 demonstration sites in 9 *fokontany* using innovative and sustainable techniques for production intensification, promotion of the use of fertilizers (compost), and biologic control. The demonstration sites included the following crops: ▪ Cultivation of improved varieties of bean and potato was developed (seeds were distributed) with 450 households in 8 *fokontany*, who allocated 450 plots for the project tests. ▪ Cultivation of pepper "pilo pilo" was developed with 3 *fokontany*. ▪ Pilot test for the cultivation of organic rice with 1 *fokontany* ▪ Pilot test for the cultivation of organic ginger with 3 *fokontany*. These were identified based on the products grown by farmers, so that they already had an interest in them. The project diversified and increased the importance of this production by directing producers towards products for which a real market exists. The demonstrative value of the increased production in experimental plots is variable depending on climate conditions, number and quality of the land plots in which farmers accept testing new seeds and production techniques (risk management by farmers), and on the adoption of the farming methods proposed by	13 demonstration sites using improved and innovative cultivation techniques for production intensification were set up for the following crops: ▪ Improved bean varieties cultivation in 9 *fokontany* with 362 households, ▪ Improved potato varieties cultivation in 10 *fokontany* with 342 households, ▪ Different pilo-pilo varieties cultivation in 3 *fokontany* with 33 households, ▪ Organic rice cultivation in 2 *fokontany* with 50 households, ▪ Organic ginger cultivation in 4 *fokontany* with 60 households, ▪ High value fruit tree nurseries in 2 *fokontany*.	**S**

Indicators	Results as of 30th June 2006 and findings of the midterm evaluation	Results as of 31st March 2008 and findings of the terminal evaluation	Assessment
	the project. An assessment of the yield of experimental land plots conducted in 2005 indicated a production increase to the order of 20%. In 2006, it was observed that the new techniques were applied in an increased number of land plots and that the improved seeds were used over without the project intervention, thus demonstrating their adoption by farmers. The monitoring of the production based on a detailed protocol was commissioned to technical services in July 2006. According to the results of this assessment, the project could assess the relevance of setting up a risk management fund to encourage farmers to test improved seeds and techniques in adequate land plots.		
Overall assessment of result 6			**S**

Table 6. Summary of Assessment of Progress achieved by the Project

Result Level	Assessment
Objective	S
Result 1	S
Result 2	S
Result 3	S
Result 4	S
Result 5	S
Result 6	S
Overall Project Assessment	**S**

*Note: The project progress is rated according to the following indices: **HS** - highly satisfactory, **S** - satisfactory, **MS** - marginally satisfactory, **MU** - marginally unsatisfactory, U - unsatisfactory, **HU** - highly unsatisfactory*

5 PROJECT IMPACTS AND SUSTAINABILITY

Main project impacts and achievements, the likelihood of their sustainability, and the factors likely to influence it, are examined in the following.

5.1 Preservation of forest ecosystem services

As a general rule, local communities and authorities testify with enthusiasm to a significant increase in water resources, a reduction of conflicts related to water use, and attribute it to the preservation of the forest, i.e. reduction of fires, clearings and logging, and to vegetation regrowth. The return of the water is seen by local communities and authorities as the most widespread and most important impact of the project's interventions. Yet, this inference follows from an erroneous perception of the hydrologic benefits of forests.

A report of the United Kingdom Forestry Research Programme published in 2005 summarizes research projects conducted by the researchers of the Centre for Land Use and Water Resource Research of the University of Newcastle (United Kingdom) and of the Free University of Amsterdam (Netherlands) during four years in various tropical countries. This work questions some widespread views on the role of the forest in water availability.

Studies have demonstrated that forest almost always use more water than shorter vegetation types like crops or grasslands, because they lose more water though evaporation than other vegetation. Normally, forest removal globally increases streamflow. Where soil condition is not or little degraded, deforestation (replaced by crops) leads to an increase in dry season flows due to lower water use of crops as compared to trees. However, where soil condition is degraded, deforestation reduces dry season flows, due to increased water losses through wet season runoff. Following reforestation, during periods of vigorous regrowth, there will be an important reduction of streamflows which will gradually level off to their previous level depending on forest composition and condition. On degraded land, low flows can be restored by forestation, if extra water use by trees is compensated by improved rainfall infiltration. Such process is very slow and cannot be perceived in the course of a project life. What emerges from those studies is that forest has a positive impact on water quality and for the reduction of erosion, and therefore of sedimentation in the rice fields located downstream from the watershed. Where surface erosion is severe, forestation may reduce erosion and sedimentation within 10 to 20 years.

Whereas it is true that forest preservation is essential to maintain the quality of the watershed hydrological functions, soil quality and biodiversity, it is doubtful that reduced deforestation rates, and even early regrowth, may lead to an increase of stream flow. It is more likely that recent and widespread observations regarding the increasing streamflow are actually attributable to the increased deforestation rate in 2006 and 2007. There is a need to conduct awareness activities with populations with great caution to promote the real benefits related to forest preservation and put right erroneous ideas.

5.2 Reduction of pressures on the forest corridor

The project started at a period when the Government was adopting measures to strengthen the enforcement of existing laws regarding forest fires and clearings prohibition. The project supported the application of such measures by raising awareness on the importance of preserving the forest among all stakeholders, providing training sessions on the current legislation, mobilizing *fokontany* surveillance committees, and supporting the organization of community forest patrols and targeted control missions. Through contributing to the rehabilitation of the road and setting up commune barriers that allow controlling the amount and origin of logs while collecting taxes, the project enabled intensifying the control of forest exploitation. It also contributed to build the communes and 3 POIC's capacities to harmonize natural resource management and repressive measures, and to ensure that offences recorded by the *fokontany* surveillance committees are transferred to the appropriate responsibility level to resolve disputes. Efficiency and collaboration within this surveillance and control line improved throughout the project, at the same time as the development of a sense of ownership and accountability towards the forest by stakeholders at all levels.

Information on fire occurrence, obtained through a satellite detection system, cover approximately twice the surface of the protected area, including it. The project compiled annual fire occurrence inside and outside the protected area for the years 2001 to 2007.

Year	Protected area	Around the PA
2001	9	41
2002	1	1
2003	2	13
2004	5	12
2005	3	23
2006	11	193
2007	17	51

The comparaison of fire occurrence over several years must be interpreted with caution since the reduced cloud cover in 2006 and 2007 (approximately 30%) in 2006 and 2007 increases fire detection and data are highly variable from one year to another. Nevertheless, what emerges clearly is that:

- Despite the fact that detected fires increase in 2006 and 2007, the increase inside the protected area is much lower than in the neighbouring areas;
- Fire occurrence on the edge of the forest blocks located inside the protected area is lower than on the edge of forest blocks located north and south of the protected area, thus in similar ecological and socioeconomic environement.

The drastic increase of fires in 2006 and 2007 is a good illustration of the influence of political events on the enforcement of prohibitions. Since 2006, several electoral campaigns followed one another:

- Presidential election: December 2006
- Revision of the Constitution: May 2007
- District deputy election: September 2007
- Commune elections (mayors and councillors): December 2007
- Regional council elections: March 2008.

Election campaigns lead to a slackening of control measures because for one thing, a sort of instruction not to intervene or prosecute offenders prevails during this period and people take advantage of this context, and for another thing, some candidates incite communities to clear the forest, in order to gain their support.

Taking into account this particular challenging context, what emerges from the data on fire occurrence is that the project intervention has been efficient to mitigate pressures on the forest corridor in comparison with comparable neighbouring sites.

5.3 Setting up a protected area with a participatory management structure involving local communities

The effective establishment of a protected area is the core result of this project. The first expected project impact of the project is related to the establishment and legalization of a system including several protection levels, comprising strict preservation areas, controlled use zones and sustainable resource use zones. This 52,200 ha territory comprising 28,000 ha of natural forest currently has a legal status for the provisional protection since December 2005 (order 20.023 / MINENVEF – 2005) and prorogated for a 12-month period (order 380 / 2007 / MINENVEF). Its management was delegated to Fanamby, the Malagasy NGO implementing the project, through a contract that was effective until end of December 2007. However, at the time of the evaluation, the MPAS commission was drawing up an order which will extend the management delegation contracts for various protected areas which currently have a provisional status and which temporary protection period will expire once protected areas will be gazetted.

5.3.1 Adaptation to the new MPAS frame of work

Gazetting the protected area was expected before the end of the project, but the Government modified its strategy for creating category III, V and VI protected areas governed by a new type of governance which recognizes the invlovement of local base communities and the integration of their activities within the protected area. The decree for the COAP enforcement was amended in December 2005 to integrate the new protected area categories but the new texts specifying their operation and management are not yet adopted.

In order to comply with the legal context governing the setting up of new protected areas, the definitive creation still depends on:

- Officialization of the legal provisions governing the new protected areas (including the IUCN category V),
- Finalization of the development and management plans (Officialization of administrative boundaries, final participatory delimitation of the protected area and of the zoning) in accordance with the newly adopted legal provisions,
- Identification of land owners by the Topographic department in 2 districts,
- Compliance with the latest instructions regarding the creation of new protected areas (based on the preliminary version of procedures):
  - Presentation and acceptance of the EIA (including the environmental and social management plan which is part of the development and management plans),
  - Preparation, presentation and acceptance of the Safeguard Plan,
  - Participatory selection of the local criteria to identify the PAP,
  - Social census of the PAP, vulnerable populations and eligible communities,
  - Compensation plan and budget,
- Preparation, presentation and adoption of the decree for gazetting the protected area.

At the time of the evaluation, it was not possible to know whether COAP provisions regarding infrastructure ownership and product sale inside the protected area would be modified to remove the incompatibility with economic activities that communities are likely to carry out in a category V protected area. These provisions, as formulated in the current version of the COAP, state that any infrastructure located inside the protected area is State property and that any product sale in it is prohibited. This would affect the success of the income generating activities such as the community ecotourism project and the development of organic rice and ginger market chains, and is incompatible with the presence of private land inside the protected area.

These constraints are also formulated in the contract for the delegation of management which specifies, inconformity with COAP measures, that any real estate investment constructed inside the protected area is the property of the protected area, therefore of the State.

5.3.2 Capacities of the protected area management structure

The approach privileged by the project aims at ensuring the sustainability of the processes it set up and supported, by counting on the role of deconcentrated and decentralized structures, while supporting them with tools and capacity building, but without substituting for them.

Fokontany level: At the time of the final elaboration of the development and management plans, an operational structure in charge of the implementation and monitoring of the plan will be identified at the level of the *fokontany*. This structure is likely to differ among *fokontany* since it will be identified by the *fokonolona* on the basis of the effective mechanisms in the *fokontany*. As it is possible, even likely, that its composition will differ from that of the surveillance committees who were in charge of the level 1 management in the frame of the provisional protection status, these newly established structures must still benefit from support and trainings to foster their autonomous functioning.

Commune and POIC level: Meetings with commune authority representatives brought out that the level of understanding of the project issues was still variable among the mayors, which can be largely explained by the fact that many of them had only recently taken up their post. Indeed, the recent

communal elections have changed the POIC composition since only 3 out of 14 mayors were reelected. This could have jeopardized the the sustainability of investments for commune and POIC capacity building:

- There are 3 new mayors out of 4 in the Moramanga district POIC (9 *fokontany*). However, one re-elected mayor shows an excellent understanding of all issues related to sustainable natural resource management. His strong leadership will certainly ensure a transfer of concepts and knowledge acquired through the project to maintain the initiatives undertaken in this POIC
- There are 3 new mayors out of 5 in the Anjozorobe district POIC (14 *fokontany*), but the newly elected mayors were previously involved in the POIC, continuation is therefore ensured.
- There are 3 new mayors out of 3 in the Manjakandriana district POIC (6 *fokontany*). However, newly elected mayors were previously involved in their commune as deputy mayors or POIC councillors. They were thus already informed of main issues and involved in the initiatives conducted in their commune. This POIC's dynamics can only improve since previous mayors were not much present locally, therefore less aware of their community's issues and of natural resource management in the protected area. Newly elected mayors live in their village and have shown more concern towards initiatives aiming at reducing poverty, environment preservation and sustainable development in rural areas.

Territory committee level: The operational structure for this third level of management has not yet been established. Its composition, attributions, operation and means at its disposal, must still need thinking out.

Integration of local base communities: Mechanisms must be developed to allow coordination and communication amongst the three levels and to ensure that local community concerns are effectively taken into account throughout the protected area management structure.

5.3.3 Setting up a sustainable financing mechanism for the protected area management

Securing sufficient financial resources is vital if protected areas are to continue to provide benefits and fulfil their role in biodiversity conservation. The main purpose of setting up a taxation system was to generate long term revenues to finance the protected area management structure.

The taxation mechanism is operational and generates revenues to communes (tourism, ginger, organic rice, farm products, charcoal, logs and toll) and to POIC (toll). Setting up the 3 POIC allowed the standardization of tax collection rates related to the same resource or the use of the same infrastructure over the whole territory concerned by the protected area.

However, protected area resident and adjacent *fokontany* do not necessarily get an equitable share of the revenues generated by the special taxes, taxes and levies collected by communes and POIC for the management of natural resources and other priority development activities.

Fanamby is considering the creation of a sheltered foundation (within the Tany Meva Foundation) which fund would be provided by revenues from tourism and marketing of the products developed with the project and private sector's support, and by donors. Foundation revenues would supply the resources needed to maintain the protected area management structure and finance its operation. The creation of this foundation could provide the ideal instrument to ensure a more equitable share of the benefits related to the establishment of the protected area and those raised from the use of biodiversity, while strenghtening the reciprocal link between the added value of income generating activities and the existence of the protected area.

5.4 Establishment of a protected area in partnership with and *to the benefit of local communities*: impact on local communities quality of life

During meetings with local communities, a special attention was given to the perception of community members, men and women, of the project impact, in particular the establishment of the protected area, on their quality of life. It is of primordial importance to examine the impacts of setting up a protected area on resident and adjacent communities to ensure that conservation efforts are not

pursued at the expense of local people who are already striving for their survival. Numerous experiences have shown that opportunity costs related to loss of access to land and resources in the context of the establishment of protected areas had exacerbated poverty.

The impacts of the project interventions on the local community livelihood are not easily assessed – beyond the evidence gathered from concerned community members – since their quality of life depends on many influencing and interacting social, economic and political factors. Such factors include the increasing cost of living between 2004 and 2008 which affects the whole population and especially the poor in remote rural regions with restricted access to information and markets. Evidence spontaneously given by communities on the project impacts does not usually tell apart impacts attributable to the socioeconomic or political context like inflation or the enforcement of the laws and regulations regarding natural resources.

Evidence collected with community members are summarized in Annex 6. The following observations can be drawn from it:

- The revenue-generating activities developed with the support of the project do not necessarily benefit those populations who bear the opportunity costs related to the setting up of the protected area.
- In general, women almost always give evidence of their impoverishment, giving examples such as the reduction of production surplus that can be sold, of their purchase power, and of the capacity to send children to school.
- Part of the population is still hesitant to adopt new varieties and farming methods, and to give up their previous cultivation practices on *tavy* which, according to them, were much more productive. This attitude is explained by the fact that the new methods require more work, ans also because the tavy practice was a mean to capture new land.
- Benefits provided by organic labeled products can compensate adequately revenue losses brought about by giving up practices that are incompatible with the objectives of the protected area (ex: retraining carpenters into organic rice producers). However, these benefits reach only the members of the producers' association, which do not group together all producers. The members of existing associations may be hesitant to accept new members, as is the case with organic rice producers.

Since we do not have a solid baseline on the welfare status of the communities before the protected area was established, it is difficult to do a straight assessment of the impact of its creation. It might also be too early to draw conclusions on the potential of income-generating activities for compensating losses sustained by households, since the development of market chains for high added-value products must follow a process which will require a few more years.

It is nevertheless interesting to examine the context of the evolution of the production of ginger which is one of the leading agricultural products promoted by the project. This rapid evolution illustrates the importance of the project contribution to increase and diversify household and community revenue sources, and especially, is a good example of the potential of an approach targeting existing high added value markets to develop producers' autnomy. Since 2006, the following stages were crossed with the support of the private sector: i) farmers' understanding of issues, ii) identification of secure outlets, iii) setting up an association to represent producers, iv) making profit for the association, v) association organization and self-management (in progress). If this organization continues evolving while abiding by transparency and equity rules, it should be in a position to provide solid and sustainable foundations to contribute to build this region's economy.

Organization of ginger production

Pre-project. Ginger market started growing in Madagascar towards the end of the 90's, leading to an increase in supply and, gradually after 4 to 5 years, to an overproduction relatively to the available market. The saturation of the existing market led to a price drop in 2001 and 2002. While large production zones (of which Beforona and Tolongoina) were supported by the Landscape Development Intervention funded by USAID, small marginalized areas, such as those located to the East of the forest corridor, were selling at a loss. Pre-project situation in the intervention zone can then be characterized by a small production, low selling prices (150 MGA/Kg), selling at a loss for approximately 40% of the production and loss of interest in the product.

2006. The project gave a boost to ginger production in 4 *fokontany* located to the East of the corridor: a buyer was identified and the project managed to bring in additional advantages. Producers sold 5.4 tons of fresh ginger directly to the buyer. Collect and delivery were organized with the project support and transportation was financed by the project. While local price for 1 Kg was 150 Ar, local producers were paid 200 Ar, amounting to a surplus benefit of 270,000 Ar for 80 producer households. This success was an incentive for the project and producers to increase the value of the product, develop the market chain with the production of essential oil, and launch the process in view of the organic and fair trade certification.

2007. The project led a process to build producers trust and encourage them to get voluntarily involved in the professionnalization of the activity by setting up a Union. Following awareness activities on the advantages and implications related to gathering within a formal structure, ginger producers from 4 *fokontany* in 3 rural communes created the Miray Union. The project supported them to put together the required documents for the officialization.

Rules for setting up the Union and its executive office were decided on a participatory basis. Each *fokontany* designated 3 to 4 members who elected the members of the executive office. The composition of the executive office (comprising a president, a vice-president, a treasurer, a secretary, 2 financial controllers, and 2 councillors) ensures a fair representativeness of the *fokontany* involved. The active participation of producers in setting up the Union demonstrates their understanding of the benefits they can get from it but mostly their will to take the leadership of the ginger market chain (*filière)* in their region. The Union status is of an association under the law 60-133.

In February 2007, the Union submitted a proposal to the PSDR for the purchase of a distillation unit, with the project support. The request was agreed to at the end of March 2007, but at the time of the evaluation, resources for purchsing the distillation unit had not yet been released. Such delays may demotivate the new Miray Union which is barely starting to see the benefits they can get from a better development of their production.

Since the distillation unit was not available yet, the project identified a market of more than one ton for dried ginger with the support of a consultant in product development. This challenge was then entirely entrusted to the Miray Union which took over the organization of collection, financial management of the operation, compliance to market and organic production standards (forbidding cultivation after burning and on steep slopes, anti-erosion measures, no chemical pesticide), up to delivery organization. Trainings were held for producers on the new drying process, including compliance to standards in terms of process and product quality according market requirements (cleanliness, humidity level, etc.). Thanks to this newly acquired know-how and the knowledge of this market, communities can continue this production on their own.

Thus the Union collected 12 tons of fresh ginger, keeping the price to producers at 200 MGA per Kg. The 114% increase from the previous year is mostly due to an increase in production surfaces. Not to mention that producers were able to sell their whole production, surplus benefits to the 140 producers involved amounted to 600,000 MGA. Based on this success, the Union gained recognition and legitimacy from local producers. Fresh ginger was processed into dry ginger to meet the market which had been identified and the delivery of 1,733 Kg of dry ginger by the Union resulted in net benefits for the Union of 2,000,000 MGA, which was deposited in a specific account under the name of the association. These resources will permit to prefinance a part of the purchase of the next collection. If it were sold fresh on the local market, ginger would have brought in 2,400,000 MGA to producers, while the sale of dried ginger yielded the sum of 5,632,250 MGA.

In view of the organic certification of the ginger production, 64 land parcel sheets were filled on the basis of surveys conducted by the project. 60 producers have signed agreements to comply with organic production criteria and the file was submitted to the local branch of Ecocert. Producers have integrated the environmental requirements of ginger organic certification which forbid slash-and-burn agriculture and cultivation on land where there is a risk of erosion. Following awareness and information campaigns, near 140 producers from 6 *fokontany* have shown an interest for the organic and fair trade approach for the 2008 harvest.

2008. Expected production for 2008 is of the order of 20 tons; the increase of 66% from the previous year is again attributable to an increase in production surfaces.

The midterm evaluation underlined that the sustainability of this development rested on the one hand, on adoption by farmers of improved techniques and seeds to increase their production (or benefits) and, on the other hand, on a simultaneous analysis of market demand and assessment of the potential of farmers' production. This analysis, which was made possible by the direct involvement of the private sector with communities, guaranteed the success of this production and must guide the evolution of the production's organization.

Producers developed their self-confidence relatively to their hold on the market chain through the Union, thanks to the transparent, equitable and participatory decision-making process. To maintain this association, it should be important to define rules for the management of the fund and for the use of its revenues, to set up mechanisms (audit) to ensure compliance and transparency of the management and use of profits, and to determine the appropriate time for the Union to adopt a cooperative-type status to remain legal.

Link between income generating activities and biodiversity conservation and protected area management

The benefits of developing organic labeled products are not always clearly linked to biodiversity conservation or to the protected area management – as there seems to be a shift in focus from the project impact on biodiversity and ecosystem conservation to the development of sustainable alternative income generating activities. Although this shift in focus is clearly understandable as it represents such a major challenge, the link between benefits and the protected area should remain strong and obvious to local communities and authorities. Protected areas are set up primarily to protect biodiversity. Otherwise, the benefits derived from alternative income generating activities may not contribute much to maintaining communities' sense of ownership and protection towards the forest corridor.

5.5 Changes to the Local Communities' Perceptions and Attitudes

The *fokontany* have been maintained as the basic structure for the project interventions for land use planning and the management of natural resources. The members and the community's authorities affirm that decision-making has always been consensual, after the potential benefits and constraints have been clearly explained.

The attitude of the community towards the conservation and the sustainable development of natural resources privileged by the project is, however, mixed:

On one hand, because of the perception of a link between the preservation of biodiversity, the ecological services such as water, and their quality of life, the local populations feel more responsible for the preservation of resources for themselves and their children. They are more open to propositions from the project and get actively involved in the planning and implementation of their development and management plan.

On the other hand, the *fokontany* development and management plans, scheduled for 2007, could not be completed. The work needed could not be done, mainly due to the succession of events and political campaigns that mobilized the population's attention and restricted the availability of local authorities from December 2006 to March 2008. The resulting uncertainty concerning the permitted use of the parcels is a factor of demotivation for the communities awaiting a clear frame of reference, in order to pursue their productive activities.

Accustomed to a situation of free access, the communities that have not benefited from a specific project for the development of revenue generating activities, or that do not practice rice growing, are frustrated by access restrictions (ex: the impossibility of enlarging plot perimeters or to cultivate a plot left fallow several years) and by the application of the law, because they are not able to perceive the long term benefits of conservation measures.

The revenue-generating activities developed with the support of the project and the maintenance of the quality of ecological services do not compensate the majority of households. Nor do they necessarily benefit those populations shouldering the opportunity costs linked to the setting up of the protected area.

The projects of support for the communes had a positive impact on communities' attitude toward the project. The most cited projects are the repairing of the trail and the support for the construction and rehabilitation of schools. The effects of these interventions are many: fostering the sustainable management of natural resources and a more favourable reception of the preservation of the environment as well as improving development conditions for the communities surrounding the protected area.

6 LESSONS LEARNED

Bringing change – Expected results may prove elusive when dependant on change in behaviour, or even in the sharing of perceived advantages to be derived from new practices, all within the limited time span of a project life cycle.

Bringing change is particularly challenging where the local population's poverty is such that there is little or no tolerance of risk.

Multi-Level Management – The participatory processes involving interested actors and stakeholders at different levels of management, from the *fokontany* to the Region, require appropriate leadership and relevant capacities at each of these levels, just as it requires well defined communication mechanisms between levels, permitting the accurate transmission of concerns and priorities in both directions.

Communication – Building a trusting relationship with the partners is a key factor of success in the establishment of processes which require actors' adherence from various levels. This is accomplished by maintaining a presence and good quality communications all through the project's execution, in which all parties are informed of the stakes, advantages and constraints of specific interventions, and of every work phase in order to be able to participate actively.

Management – An operational and financial monitoring system updated every month enabled the team to answer - in a timely manner - to a multitude of requests for reports according to varied formats and periods (quarterly, trimestrial, bi-annual, annual) that changed during the project.

Tax Mechanism for Generating Funds for the Management of the Protected Area – In order to increase producer households' revenues while contributing to a fund for the management of the protected area, efforts should target the development of cash crops meeting existing organic and fair-trade markets, while maintaining subsistence crop production destined mainly to local and self-consumption to ensure household food security.

Execution Entrusted to a National Non Governmental Organization – Entrusting project execution to a national NGO that already has its personality and that develops a specific expertise through opening paths in line with its vision, had several advantages as compared to a situation where the personnel is recruited for the period of the projects' execution, then dispersed, or an implementation dependant on a series of consultant interventions:

- Entrusting project execution to a NGO gave access to a structure whose personnel could give opportune and specific support to the project execution team.
- The stability of the institution responsible for the project is a factor favouring the development of a trusting relationship with partners.
- Entrusting project execution to a NGO has fostered the coherence of the messages, the interventions and the approach all through the project.
- The accumulation of experience, learning and know-how within a national institution reinforces its pertinence as a partner in the implementation of the Government's programmes and policies.

A few lessons mentioned in the midterm evaluation report remain valid and are summarized in the following:

Signing voluntary agreements. The project sought the voluntary adhesion from each *fokontany* community which land is touched by the protected area through the signing of a voluntary agreement. This had the benefit of allowing discussion, the expression of needs, constraints, and concerns from communities and other owners, and the understanding of the subsequent steps in which they will be involved. This step is of particular importance in this co-management system which rests on

developing a sense of accountability among communities regarding the conservation and sustainable management stakes.

Land tenure Security. The acquisition of a high definition satellite image facilitated the identification of landmarks (cultivation fields, forests, villages, etc.) by the communities to produce local land occupation plans and to resolve conflicts during community meetings.

Biological and Ecological Inventory Studies. These studies allowed the identification of appropriate impact indicators and the determination of a baseline situation to assess the project's impact. Such valuable information would have been more useful if it had been collected before the start of the project, with the support of a GEF PDF or other small size financial support.

Demonstrative value for farming production intensification. The demonstrative value of improved cultivation techniques and varieties which the project absolutely needs must not be attained at the small farmers' expense who, following their wise risk management approach, are obviously reluctant to allocate their good cultivation plots to test the new techniques and varieties.

Support to communes. The small development projects conducted to the benefit of communes (such as contributions for school rehabilitation) resulted in favorable attitude changes and trust development with local authorities, communes, and with local populations. As they understood that the project was in their interest, they were more inclined to listen to the project team's proposals about environmental conservation aiming at improving their livelihood.

7 CONCLUSIONS AND RECOMMENDATIONS

7.1 Conclusions

The protected area is in place; its creation is not definitive but is now the subject of technical processes that should not encounter obstacles. It integrates a forest corridor and a peripheral area in which the local communities conduct tourism and productive activities that are compatible with the protected area's objectives. The development of income generating activities including the production, transformation and commercialization of organic-labeled rice and ginger, and the development of community ecotourism, present very encouraging perspectives as well in terms of compensation for opportunity costs related to the restrictions to access to the land and the resources, as in terms of guaranteeing the integration of environmental conservation and biodiversity concerns in the agricultural and tourism practices by conditioning the value added. However, the link between the benefits attributed to the development of these products and the conservation of biodiversity or the management of the protected area has not always been clearly established.

Land occupation in the protected area has been stabilized according to the prescription of the Provisional Protection Order. It has been consigned by a process for securing land tenure that has helped legitimize plot limits and owners identification, by the use of high resolution satellite images. The local communities of 39 of the 40 *fokontany* take an active part in the elaboration of development and management plans on the basis of these delimitations, as of their current and future needs, the availability of resources and the conformity with applicable legal texts. The completion of these plans, delayed by a succession of political campaigns, has only to clear some technical processes and validation by the communities.

The 4 years of the project have permitted the mobilization and development of the capacities of communities, local officials, and administrators in charge of forest management, such that pressure on the forest corridor due to fire, illegal logging and clearings have been reduced in comparison to forests outside the protected area.

A system of taxation was set up for many products and services, bringing revenues to the different actors involved in the management of the protected area, insuring the sustainability of the structure and its operations, except at the *fokontany* level, though it is the operational base of the sustainable management of natural resources on the ground.

The whole system stems from an eminently participatory approach of development democratization that requires, to be effective, successive stages of information, raising awareness, capacity development and accompaniment to insure that all the actors of this vast participatory worksite, particularly the local communities, be able to play their role autonomously beyond the life of the

project. The final evaluation of this project shows that it has been able to put the elements of the system in place, but a further phase of accompaniment is necessary to attain autonomy.

7.2 Recommendations

Recommendations are given from two perspectives. The recommendations concerning the expected results are concerned with the completion of the final steps needed to attain them, but also the actions needed to insure their sustainability. The general recommendations look to improving or facilitating the execution of similar projects in the future.

General Recommendations

Integration of the protected area in planning on a wider scale:

- Over a 3 or 4 year horizon, the MEEFT should evaluate the integration of the protected area into larger scale land-use planning, and what has been effectively done in terms of implementing these plans at the regional scale to support the protected area and its impacts.
- National and local authorities must be brought to a better understanding of the approach that underlies the establishment of a protected area and its potential benefits in order to develop their ownership and support the integration of the protected area's objectives into the wider scale development planning.

Insure the active involvement of local populations in the management of the protected area:

- Increase the investments in community capacity development and that of the local authorities to insure their full integration in the protected area's management structure.

For the Creation of a New Protected Area

- Perform socioeconomic impact studies prior to the establishment of the protected area, and later, during operation and at the time of evaluations.
- Determine the ecological and socioeconomic impact indicators and acquire baseline data, particularly concerning household revenues, before starting project intervention, so as to be able to evaluate the impact.
- When creating a protected area in a forest environment, include stream water monitoring (quality and quantity) in the monitoring of ecological impacts, at the same time as the monitoring of surfaces and their condition (intact, deforested, regenerating, etc.)
- In the process of delimiting a new protected area, involve representatives from the peripheral communes, particularly when they are located near the forest.
- Environmental impact studies should include the assessment of potential impacts of the establishment of a protected area on neighbouring forests, in particular the assessment of the risks to transfer the pressure from one forest to another. Such information would allow the identification of additional mitigation measures to reduce the risk.

Specific Recommendations for Attaining and Sustaining the Expected Results

The following recommendations were developed and discussed with the project coordinator, to attain the expected results and to favour their sustainability.

General recommandations

Objective and expected results	To be completed to achieve expected result	To achieve to contribute to the sustainability of results and impacts

Project Objective: The Anjozorobe–Angavo Forest Corridor habitat and biodiversity are conserved and used in a sustainable manner in partnership with, and to the benefits of, women and men living there.	▪ Safeguard Plan: socioeconomic baseline
	▪ It is difficult to distinguish the impacts related to law enforcement from those related to the establishment of the protected area
		▪ Monitoring of impact indicators:
		  ▪ Income of the households affected by the intervention
		  ▪ Ecological monitoring (illegal activities, fires, water, lemurs, surface of the natural forest)
		▪ Creation of a sheltered foundation (technical management unit and generation of revenues to ensure the protected area managements as well as the fair and equitable sharing of the benefits raised from the use of biodiversity)

R1 A reliable and updated socio-economic and ecological database on the forest corridor is used as a decision-making tool by local and regional authorities	▪ Socioeconomic baseline for communities income from activities other than agriculture and cattle breeding (data needed for the EIA and the safeguard plan) ▪ Handing over the database to the 3 POIC ▪ Production and handing over maps and information booklets to *fokontany*	▪ Development of the capacities needed to use the tools derived from the database and to update the database ▪ Adjustment of the database structure to allow updating it while keeping previous years information ▪ Setting up and building the capacities of the network for collecting the information that makes up the database (rural newspaper) ▪ Adjustment of the database structure to produce various versions relevant and accessible to the different users according to their capacities, interests and management responsibilities

Objective and expected results	To be completed to achieve expected result	To achieve to contribute to the sustainability of results and impacts
R2 Creation of the First Regional Forest Reserve to serve as a model that may be adapted to other regions. *Reformulation by the project*: The protected area is created to serve as model to be adapted to other regions	The definitive creation depends on: ▪ Officialization of the legal provisions governing the new protected areas (including the IUCN category V), ▪ Finalization of the development and management plans (Officialization of administrative boundaries, final participatory delimitation of the protected area and of the zoning) in accordance with the newly adopted legal provisions, ▪ Identification of land owners by the Topographic department in 2 districts, ▪ Compliance with the latest instructions regarding the creation of new protected areas (based on the preliminary version of procedures): ➢ Presentation and acceptance of the EIA (including the environmental and social management plan which is part of the development and management plans), ➢ Preparation, presentation and acceptance of the Safeguard Plan, ➢ Participatory selection of the local criteria to identify the PAP, ➢ Social census of the PAP, vulnerable populations and eligible communities, ➢ Compensation plan and budget, ▪ Preparation, presentation and adoption of the decree for gazetting the protected area.	▪ Elaboration of a document to capitalize on the practical experience and knowledge built-up through setting up the Anjozorobe – Angavo protected area to facilitate the adaptation to other sites.
R3 An adaptable model for a three-tier participatory natural resource management plan is set-up and operational at local and regional levels	▪ Participatory decision on the composition of the *fokontany*-level structures in charge of implementing the development and management plans upon their finalization ▪ Decision on the composition of the 3rd level operational structure ▪ Preparation of the terms and conditions on the basis of the responsibilities of each level of the management structure and decision on the coordination and communication mechanisms between levels	▪ Capacity building to ensure that every level of the management structure is able to carry out their functions on their own: ➢ Assessment of capacity needs, ➢ Identification of capacity gaps and constraints to capacity development, ➢ Planning and implementation of the capacity development plan

Objective and expected results	To be completed to achieve expected result	To achieve to contribute to the sustainability of results and impacts
R4 A strategic plan for securing land tenure, alternative income-generating activities, and control of slash and burn agriculture practices developed and tested in at least 15 *fokontany*.		▪ Strenghtening of the capacities and means of producers' associations (organizational capacity, market information, planning, certification, negotiation with the private sector, management of revenues and financing)
R5 Developing and testing an adaptable and innovative tax system model for long-term sustainable revenue to finance the structures in charge of managing the resources of the protected area at the local level	▪ Establishment of rules at the level of communes and POIC to ensure the allocation of part of the revenues generated by special taxes, taxes and levies to the *fokontany* bordering the protected area for the management of natural resources and other *fokontany* priority development activities	▪ Management of revenues generated by special taxes, taxes and levies by the sheltered foundation and raising additional funds
R6 Sustainable harvesting techniques, alternative income-generation activities and intensive sustainable agriculture developed and tested		▪ Carrying on with efforts targeting cash crops which fit existing fair trade and organic markets to increase producers households' income and contribute to the fund for the protected area management

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Annual Reports 2004, 2005, 2006 and 2007

Quarterly Activity Report: April–December 2004, January – March 2006, April – June 2006, July – September 2006, January – March 2007, April – June 2007, July – September 2007.

Minutes of the Steering Committees meetings in July 2004, March and December 2005, December 2006, and February 2008.

Minutes of the Annual Review 2006.

Project Implementation Report (PIR) 2007, 2008

Agreements and Collaboration Conventions (UNDP, WWF, FID, PSDR, ADRA)

List of Tables

Annexes

Annex 1. Project Logical framework

Log frame Matrix	**Project Theme:** Community-based and Participatory Biodiversity Conservation in the Forest Corridor of Anjozorobe **Country : Madagascar**	**Estimated Project Period : Nov. 2003 – Nov. 2007** **Developed in : September 2002**

Project Strategy	Objectively Verifiable Indicators	Verification Means	Assumptions
Project Objective Biodiversity and habitat in the Forest Corridor of Anjozorobe are conserved and used in a sustainable manner	• At end 2006, a system with various protection levels is established and legalized, including: protected areas, strict use zones, and multiple use zones. • At end 2004, community leaders and authorities are trained to manage issues related to natural resource management. • Two years from project start, the three-level natural resource management structure is set up. • Two years from project start, the taxation plan is implemented and is operational. • Two years from project start, the private sector works in collaboration with 10 villages in tourism, Development Projects and Income-generating activities (AGR). • Local communities are fully integrated into the three-level management structure	• Official documentation on conservation zoning, Government documentation, official legislation declaring that the zone is a regional reserve. • Official report on training provided. • Documentation signed by authorities who set up the structure • Minutes on education and awareness activities. • Formal report on the establishment of a management structure. • Formal conventions between private sector and communities	• Willingness in the community to implement conservation strategies. • Willingness in the Government to bring in changes to development and conservation policies. • Willingness among communities to work with the private sector and desire to manage natural resources at the local level. • Willingness in the private sector to invest with communities in the region
Results : 1. A reliable and updated Database including socio-economic and ecological data on the Forest Corridor, used as a decision-making tool by local and regional authorities	• The GIS database comprising the biological and socio-economic information on the Corridor is created before the second year • The data are analyzed and the results are discussed with local communities and local government, serving as a basis to raise awareness and achieve participatory planning and implementation, at the end of the second year	• Documents on biodiversity, socio-economic and GIS information are established and put at the disposal of partners and communities. • Computerized database is put at the disposal of partners and decision makers. • The map suggesting the limits is established. • Documentations are signed by the national government establishing the protected area	Communities, the University, and Fanamby researchers work together to gather information for the database.

Project Strategy	Objectively Verifiable Indicators	Verification Means	Assumptions
		• The established documents are available. • The number of patrols conducted is documented and the impacts are followed up by reduced pressure on forest	
2. Establishment of the First Regional Forest reserve, which will serve as a model that may be transposed to other regions.	• The limits of the Conservation Site are identified based on the socio-economic and biological data gathered in the implementation of the project, by the end of the second year. • At end of Project, a Conservation Site and multiple use zones are established in the Forest Corridor of Anjozorobe. • A methodology for implementing the Conservation Site is established in other regions. • Collaborative community forest patrols at Corridor level are put in place.		The Government commits to support the proposed Project and will participate in setting up the Conservation Site
3. An adaptable plan for three-level participatory natural resource management is set up and operational at local and regional levels	• Set up and test the level one in 5 *fokontany* during the first year. • Put in place the three levels of the management structure by the end of the second year • The management structure is operational at the end of the three year period. • A setting up methodology is developed for other regions	• Official project report and documents presenting the test results. • Legal documentation on establishment of the three-level structure • Established documents available	Government and communities are ready to follow the decisions made by the three committees elected by the community
4. Development and test of a strategic plan for land tenure security provision, alternative income-generating activities and control of slash and burn agriculture practices in, at least, 15 *fokontany*.	• Test the system for land tenure security provision in 5 *fokontany* during the first 12 months of the Project. • Put in place strategies for land tenure security provision with collaboration partners in 15 *fokontany* by the end of the second Project year. • All 40 *fokontany* will have implemented strategies for land tenure security provision by the end of the Project.	• Official report on test for land tenure security provision • Official administrative documents attesting that the system for land tenure security provision is in place. • Official documents confirming that the system for land tenure security provision is in place.	Itinerant slash and burn agriculture is due to failure of system for land tenure security provision
5. Establishment and testing of a new adaptable taxation system model that serves to finance the resource management structures of the Conservation Site at the	• Taxation system is tested in 5 *fokontany* with participation of local and regional authorities by the end of first year. • Taxation system is in place at the level of all *fokontany* by the end of the third year.	• The taxation structure and the setting up document are established. • Minutes on workshops.	Community members are ready to pay taxes if funds are kept at the local level. Willingness in the community to

Project Strategy	Objectively Verifiable Indicators	Verification Means	Assumptions
local level.	• Local community manages the taxation system by the end of the Project.		work with the private sector.
6. Establishment and testing of sustainable exploitation techniques, alternative income-generating activities, and sustainable intensive agriculture	• Based on the land tenure regime, the models for taxation and resource management system initiate 12 income-generating Projects, which are non destructive for the forest, conducted by the community and the private sector • 12 GCF or GELOSE experimental community-based management systems are operational by the end of the third year • 12 demonstration sites for agricultural operation using innovative techniques are set up in 12 *fokontany*	• Number of sectoral Projects by communities–private sector	
Results : 1.1. Compilation of existing socio-economic and biological data on the Forest Corridor by November 2003	1.1.1 Database including existing biological and socio-economic data	Database	
1.2. A two day planning workshop organized by December 2002 with implementation partners for identifying information gaps, strategies and activities required to establish a reliable database.	1.2.1 Workshops are organized, and the document for planning the database is drafted.	Minutes on Planning workshops. Planning document	
1.3. Socio-economic studies identified during the planning workshop held during the first year.	1.3.1 Studies on socio-economic data are conducted 1.3.2 The socio-economic documents, including the analyses, are developed.	Socio-economic data incorporated in the database. Documents developed	
1.4. Studies on biodiversity (Fauna and Flora) are identified during the planning workshop held by the end of second year.	1.4.1 Biological studies and inventories are completed 1.4.2 Biological documentation, including analyses, is established	Additional biological data incorporated into the database. Documents developed	
1.5. With a GPS, topographical verification and analysis of socio-economic data on biodiversity are mapped.	1.5.1 Gathering of the data points, development and analysis of maps presenting accurate biological and socio-economic data	Maps developed based on biological and socio-economic data	
1.6. Data are captured and analyzed for supplementing the existing database by the end of second year	1.6.1 All required data are included in the database. 1.6.2 Completion of analyses that will serve to guide the future decisions in corridor management	Database is established	

Project Strategy	Objectively Verifiable Indicators	Verification Means	Assumptions
1.7. Data are analyzed and results discussed with the communities and local government	1.7.1 Several meetings and workshops	Mission reports	
2.1. Development of an appropriate zoning for land and resource use, based on information from the database	2.1.1 The Service des *Eaux et forêts* and the Service de l'Agriculture are fully integrated into the zoning process. 2.1.2 Developed maps serve as a baseline for appropriate use of land	Report form the Service des *Eaux et forêts* and from Agriculture Maps are developed in collaboration with the Technical Entities (Services Techniques).	
2.2. Identification of protected area limits by the end of second year	2.2.1 Communities participate in identification and marking protected area limits. 2.2.2 Limits integrated into the planning and map development database.	Meetings with communities and mission reports. Maps including limits are developed	
2.3. Document on the Regional Forest Reserve is presented to the Administration by the end of third year following the steps defined in the manual for establishing protected areas by ANGAP/Service des *Eaux et forêts*.	2.3.1 The document developed is submitted to the Administration and includes the recommendations for the Regional Forest Reserve.	Documents at administrative offices that attest the reception of the document. Document on the Regional Forest Reserve is developed.	
2.4. The Regional Forest Reserve is established by the end of third year.	4.1.1 Regional Forest Reserve approved by the Administration 4.1.2 The limits of reserves are officially marked.	Documentation approving the Reserve Official inauguration ceremony.	
2.5. More coordination between the two provinces [Forest department (service forestier)]	2.5.1 Documentation and reports by the Service Forestier demonstrating the collaboration activities		
3.1. A Planning Workshop with local and regional authorities to develop a strategy for implementing the management structure is organized by December 2003.	3.1.1 Implementation Plan established and accepted by authorities, leaders and actors following the planning meetings.	Minutes on the planning meeting Document on the implementation plan developed.	
3.2. Identify the committee leaders and members for each level under the management structure through round tables by March 2004.	3.2.1 List of committee leaders and members identified following the round tables.	Minutes on meetings and report by Fanamby List of committee leaders and members.	
3.3. Development of local committees in 30 *fokontany* by the end of May 2005.	3.3.1 Committees are in place in 30 *fokontany* and are ready to follow training sessions.	Mission reports and local documents for setting up committee.	
3.4. Identify all committee	3.4.1 The list of committee	Official vote results	

Project Strategy	Objectively Verifiable Indicators	Verification Means	Assumptions
members for the three-level management structure through community-based votes by the end of first year.	members for the three levels is established 3.4.2 Woman participation rate is satisfactory	and definite list of committee members authenticated at the state level.	
3.5. Identify training needs for members of management structure by the end of first year	3.5.1 The list of training needs is established and approved by the Execution Committee	Mission reports and training programs.	
3.6. All members of the management structure are trained after 18 months in the Project.	3.6.1 Members have sufficient knowledge on the function and organization of the three-level management structure 3.6.2 With support from implementation organizations, members manage the natural resources in the Corridor.	Training reports and Minutes on training sessions.	
3.7. The management structure is functional at end of second year.	3.7.1 Committees make decisions based on training and available resources. 3.7.2 The members of the three-level management structure provide the Corridor management.	Reports on meetings of the management structure and reports by Fanamby.	
4.1. Identify priorities for land tenure security provision based on socio-economic data.	4.1.1 The list of priorities to be addressed, including solutions, will contribute to Project objectives.	Report on issues of land tenure security provision	
4.2. Establish the implementation process with regional and national authorities.	4.2.1 Regional and national authorities agree on a strategy for improving the land tenure regime.	Agreed Plan for land tenure security provision at the regional and national levels.	
4.3. In collaboration with the Land Title Office (Bureau des Titres Fonciers), identify and implement the plan for land tenure security provision in 15 sites to be tested as forests and agricultural land.	4.3.1 Reports on tests of land tenure security provision are established in 15 sites.	Report on land tenure security provision	
4.4. Assess and draft a plan for land tenure security provision.	4.4.1 Revisions on land tenure regime are approved by local, regional, and national authorities.	Revised strategy for land tenure security provision.	
4.5. Implement the plan for land tenure security provision that is drafted at the level of all *fokontany* in the Project.	4.5.1 All other *fokontany* adopt the plan for land tenure security provision. 4.5.2 Nomad land management practices are reduced.	Official documents defining the changes in land tenure regime per *fokontany*.	
5.1. Develop a strategy for implementing the taxation system test with the communities, local and regional authorities, as	5.1.1 Strategic document describing the plan for implementing the taxation system.	The document is established and accepted by the communities and local and regional	

Project Strategy	Objectively Verifiable Indicators	Verification Means	Assumptions
well as partners, six months after Project start.		authorities.	
5.2. Test the taxation strategy at the level of one commune in the Corridor by the end of first year.	5.2.1 The taxation system is implemented and increases the income meant for community-based development projects.	Receipt of taxes for the community and per *fokontany*.	
5.3. Assessment and drafting of a taxation strategy.	5.3.1 Document developed by local authorities and the assessment team, which includes suggestions for improving the taxation system	Document developed.	
5.4. Establish the taxation system throughout the Corridor by the end of the Project.	5.4.1 Increase in resources for local development activities. 5.4.2 Communities are capable of managing their financial and natural resources for improving infrastructure and productivity.	Official documentation relative to the implementation of the taxation system	
6.1 Initiate partnerships with the private sector and community by developing community-based products.	6.1.1 12 partnerships with the private sector established among local communities by the end of second year.	Presence of the private sector among local communities during the Project.	
6.2 Introduce techniques to increase the sustainability of agricultural productivity such as intensification through awareness activities during second and third years.	6.2.1 12 farming demonstration sites that use more intensive production techniques are functional after the third Project year.	Statistics on increased productivity per farmer.	
6.3 Initiate income-generating activities (essential oils, ecotourism and farming intensification) based on collaboration with the private sector.	6.3.1 20 income-generating projects involving private sector initiatives are conducted among local communities.		
6.4 Establishment of 12 GCF and GELOSE community-based management structures based on manuals form *Eaux et forêts*, by the end of second year.	6.4.1 Official documents and contracts signed to legalize the forest resource management transfer to local communities.		

Annex 2. Terms of Reference

TERMS OF REFERENCE
FOR
FINAL EVALUATION OF PROJECT
Participatory Community Based Conservation of Biodiversity
in the Anjozorobe Forest Corridor"

Country: Madagascar
UNDP GEF PIMS No. 1290
Project Duration: 4 years
Beneficiary Country: Madagascar
Estimated start: December 2003
Start: April 2004
Estimated ending: March 2008
Executing Agency: NGO Execution: FANAMBY
GEF Focal Area: Biodiversity Conservation
GEF Strategic Priority: Mainstreaming Biodiversity into Production Sectors and Landscapes.

1. Introduction

a) UNDP/GEF Monitoring and Evaluation Policy:

According to UNDP/GEF policies and procedures, all regular and medium-sized projects supported by the GEF should undergo a final evaluation upon completion of implementation.
Final evaluations are intended to assess the relevance, performance and success of the project. It looks at early signs of potential impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. It will also identify/document lessons learned and make recommendations that might improve design and implementation of other UNDP/GEF projects.

b) Project objectives and its context within the programme country:

The Project for the Community based and Participatory Conservation of Biodiversity in the Forest Corridor of Anjozorobe, of a 4 year planned period, is supported by UNDP and GEF.

The project executing agency is the Ministry for Environment, which commissioned the implementation to the national NGO, Fanamby, in partnership with the international NGO, WWF and in collaboration with development partners.

Anjozorobe Forest Corridor is one of last vestiges of natural ecosystems in the central highlands of Madagascar, whose high endemicity rates rank it among global priorities for biodiversity conservation. Surveys conducted prior to the project start highlighted the rich biodiversity sheltered by the forest corridor, particularly in its mid-altitude part, some species being endemic to the corridor. The corridor was identified as a national conservation priority in national and international scientific workshops, and in the Strategic Plan for Madagascar Protected Area Network.

The Corridor is of high ecological, social, cultural, and economic importance as a source of food, medicinal plants, timber and firewood for daily needs, as well as a traditional value heritage for local communities. The ecological importance of the corridor as a hydrological and climatic regulator is of prime importance for the resident population and in the periphery, as it is the main source to supply the streams that irrigate the thousands of hectares of rice fields both inside and outside the corridor and as it supplies drinking water to a few commune main towns.

However, this environment is subject to strong pressures, particularly from extensive illicit and licit timber exploitation and from clearings for agriculture and human settlement.

The project goal is to conserve and develop the habitats and the biodiversity in the Anjozorobe – Angavo forest corridor in partnership with, and to the benefit of, women and men living there.

Six expected results are proposed in the project document:

R1. A reliable and updated database, including socio-economic and ecological data on the forest corridor, to be used as a decision-making tool by local and regional authorities,

R2. Participatory development of a Protected Area as a model for other regions,

R3. An adaptable model of a three-level participatory management plan for natural resources to be set up and made operational,

R4. A strategic plan for land tenure security and for controlling slash and burn agriculture practices developed and tested in at least 15 *fokontany*,

R5. A taxation system model developed and tested to generate long term incomes to finance the structures for resource management in the Protected Area to be established and tested,

R6. Developed and tested sustainable harvesting techniques, alternative income-generating activities and sustainable intensive agriculture.

2. **Objectives of the evaluation:**

It is an independent evaluation. The evaluation will be undertaken according to the following principles:

- Assessment of the achievement of designed project objectives and outputs by using the indicators as defined by the PRODOC and the gathered recommendations as formulated in the MTE report;

- Assessment of the extent to which the project is contributing to *a) putting mechanisms in place to ensure that biodiversity management objectives are being integrated into production sector activities in the Anjozorobe Forest Corridor; b) stemming the rate of loss of forests and constituent biodiversity at the project site; c) a stronger network of biodiversity institutions; d) realising national policy objective;*

- Assessment of the implementation approach:
- Assess the management of staff contracts and improvements made in this regard including staff commitment and retention at the district level.
- Assess the level to which the performance indicators have been used/ improved as project management tools.
- Evaluate the efficiency of any partnership arrangements established for implementation of the project with relevant stakeholders involved in the country/region.
- Describe and assess efforts of UNDP in support of the implementing agencies and national institutions.
- Make recommendations as to how to improve project performance in terms of effectiveness and efficiency in achieving impact on both capacity building and the targeted conservation concerns

- Assessment of Country ownership:
Assess the extent to which country representatives (including governmental official, civil society etc.) are actively involved in project implementation.
Assess whether Government of Madagascar has maintained financial commitment to the project
Roles and responsibilities of : Government, UNDP/GEF, Fanamby NGO;
Role and responsibilities of: authorities, the various individuals, agencies and institutions and the level of coordination between relevant players. In particular, the capacity and performance of the Project Manager, the role of Steering Committee and the capacity of Fanamby NGO as Executing Agency will be evaluated.

- Assessment of Stakeholder Participation and benefits accrued:
Assess the level of public and local/regional communities' involvement in the project and comment as to whether public involvement has been appropriate to the goals of the project.

Evaluate the extent to which project impacts have reached the intended beneficiaries.

- Assessment of sustainability.
Assess the factors of sustainability (institutional capacity (systems, structures, staff, expertise etc.), social sustainability, policy and regulatory frameworks that further the project objectives, financial sustainability (including the options of a Trust Fund considered in development of the project) and evaluate the extent to which project results could be considered as sustainable.

- Assessment of replication approach
- Assess the extent to which the projects results are being taken to scale up lessons and experiences emerging from the project.
- Describe the main lessons that have emerged in terms of: strengthening country ownership/ drivenness; strengthening stakeholder participation; application of adaptive management strategies; efforts to secure sustainability; knowledge transfer; and the role of M&E in project implementation. In describing all lessons learned, an explicit distinction needs to be made between those lessons applicable only to this project, and lessons that may be of value more broadly.

- Financial Planning, Cost effectiveness and Monitoring and Evaluation System will also be considered, in terms of efficiency and improvement, according to the formulated comments and recommendations during the MTE.

3. <u>Expected products</u>

Based on the above points, the evaluation should provide a document of approximately **50 pages** (Evaluation Report) and structured along the following lines:

1. Executive summary
2. Introduction
3. The project(s) and its development context
4. Findings and Conclusions
   4.1 Project formulation
   4.2 Implementation
   4.3 Results
5. Recommendations
6. Lessons learned
7. Annexes – (**NB to include completion of the mainstreaming monitoring tool, and the co-financing**)

In general, the evaluation report should describe the extent to which the project objectives have been met and where gaps are evident.

The document will be made available in French and English.

The report delivery should follow the following stages:

- Debriefing at the end of the in-country mission; (Ministry, UNDP, Fanamby NGO)
- Submission of first draft, within 2 weeks of completion of field visits and interview (in-country part of the mission) to UNDP/GEF/Regional Coordinating Unit and to UNDP Madagascar Office. This latter will share for comments the draft with the Ministry, the President of Steering Committee, WWF and Fanamby NGO.
- Comments should be received within 7 days and final report should be delivered 2 weeks after.
- If there are discrepancies between the impressions and findings of the evaluation team and the aforementioned parties these should be explained in an annex attached to the final report.

4. Methodology of evaluation approach:

- Desk studies: documentation review (cf. List of documentation to be reviewed in Annex to the TORs)

- Interviews:
  - Ministry: Secrétaire Général, Staff within the Ministry in charge of the project's monitoring and follow up,
  - Key stakeholders including Community-Based Representative, Local/traditional authorities, Fanamby NGO's partners, different partners and agencies involved in EPIII,
  - ANGAP
  - ONE
  - SAPM (Système d'Aires Protégées de Madagascar) Commission,
  - UNDP
  - WWF
  - Offices national/regional du Tourisme
  - Other partners: Programme National Foncier, PSDR, Fondation Tany Meva

- Field visits: Western and eastern parts of the Corridor

- Questionnaires

- Participatory techniques and other approaches for the gathering and analysis of data

5. Evaluation team:

- The Evaluator Leader (Team Leader) will be an International Consultant experienced in biodiversity issues, rural development and partnership development
- The Team Leader might be assisted by a national consultant with similar skills if deemed necessary.
- Language skills: French and English

6. Implementation arrangements:

- Management arrangements:

UNDP Madagascar Country Office is the main operational point for the evaluation. It will be responsible for liaising with Fanamby NGO to set up the stakeholder interviews, co-ordinate with the Ministry of Environment, Water and Forests and Tourism the hiring of national consultant.
UNDP Office will ensure the timely provision of DSA and travel arrangements within the country for the evaluation team.
The final agenda will be agreed upon by the UNDP/GEF/Regional Coordinating Unit, UNDP Country Office and the Ministry. These three parties will receive a draft of the final evaluation report and provide comments on it prior to its completion.

- Resources required:

Logistical support should be ensured for the travel of the international consultant coming to Madagascar and for both consultants (international and national) during the field visits (vehicle, accommodation, etc.)

- Timeframe:

	ACTION	ARRANGEMENT (by)
1st week	Interview and meeting with	UNDP

	partners at "national level" (Antananarivo)	
2nd week	Field visit	Fanamby NGO
3rd and 4th week	Debriefing Drawing up first draft	UNDP- Evaluation Team
End of 5th week	*Receiving comments*	
End of 6th week	Final report delivery	Evaluation Team

5. Scope of the evaluation- specific issues to be addressed:

Cf. sections 2 & 3.

The content of the report:

1. Executive summary
- Brief description of project
- Context and purpose of the evaluation
- Main conclusions, recommendations and lessons learned

2. Introduction
- Purpose of the evaluation
- Key issues addressed
- Methodology of the evaluation
- Structure of the evaluation

3. The project(s) and its development context
- Project start and its duration
- Problems that the project seek to address
- Immediate and development objectives of the project
- Main stakeholders
- Results expected

4. Findings and Conclusions

In addition to a descriptive assessment, all **criteria marked with (R) should be rated** using the following divisions: Highly Satisfactory, Satisfactory, Marginally Satisfactory, Unsatisfactory

4.1. Project Formulation

Conceptualization/Design (R). This should assess the approach used in design and an appreciation of the appropriateness of problem conceptualization and whether the selected intervention strategy addressed the root causes and principal threats in the project area. It should also include an assessment of the logical framework and whether the different project components and activities proposed to achieve the objective were appropriate, viable and responded to contextual institutional, legal and regulatory settings of the project. It should also assess the indicators defined for guiding implementation and measurement of achievement and whether lessons from other relevant projects (e.g., same focal area) were incorporated into project design.

Country-ownership/Driveness. Assess the extent to which the project idea/conceptualization had its origin within national, sectoral and development plans and focuses on national environment and development interests.

Stakeholder participation (R) Assess information dissemination, consultation, and "stakeholder" participation in design stages.

Replication approach. Determine the ways in which lessons and experiences coming out of the project were/are to be replicated or scaled up in the design and implementation of other projects (this also related to actual practices undertaken during implementation).

Other aspects to assess in the review of Project formulation approaches would be UNDP comparative advantage as IA for this project; the consideration of linkages between projects and other interventions within the sector and the definition of clear and appropriate management arrangements at the design stage.

4.2. Project Implementation

Implementation Approach (R). This should include assessments of the following aspects:

(i) The use of the logical framework as a management tool during implementation and any changes made to this as a response to changing conditions and/or feedback from M and E activities if required.
(ii) Other elements that indicate adaptive management such as comprehensive and realistic work plans routinely developed that reflect adaptive management and/or; changes in management arrangements to enhance implementation.
(iii) The project's use/establishment of electronic information technologies to support implementation, participation and monitoring, as well as other project activities.

(iv) The general operational relationships between the institutions involved and others and how these relationships have contributed to effective implementation and achievement of project objectives.

(v) Technical capacities associated with the project and their role in project development, management and achievements.

Monitoring and evaluation (R). Including an assessment as to whether there has been adequate periodic oversight of activities during implementation to establish the extent to which inputs, work schedules, other required actions and outputs are proceeding according to plan; whether formal evaluations have been held and whether action has been taken on the results of this monitoring oversight and evaluation reports.

Stakeholder participation (R). This should include assessments of the mechanisms for information dissemination in project implementation and the extent of stakeholder participation in management, emphasizing the following:

(i) The production and dissemination of information generated by the project.

(ii)Local resource users and NGOs participation in project implementation and decision-making and an analysis of the strengths and weaknesses of the approach adopted by the project in this arena.

(iii) The establishment of partnerships and collaborative relationships developed by the project with local, national and international entities and the effects they have had on project implementation.

(iv) Involvement of governmental institutions in project implementation, the extent of governmental support of the project.

Financial Planning: Including an assessment of:

(i) The actual project cost by objectives, outputs, activities
(ii) The cost-effectiveness of achievements

(iii) Financial management (including disbursement issues)
(iv) Co-financing [4]

- Sustainability. Extent to which the benefits of the project will continue, within or outside the project domain, after it has come to an end. Relevant factors include for example: development of a sustainability strategy, establishment of financial and economic instruments and mechanisms, mainstreaming project objectives into the economy or community production activities.

Execution and implementation modalities. This should consider the effectiveness of the UNDP counterpart and Project Co-ordination Unit participation in selection, recruitment, assignment of experts, consultants and national counterpart staff members and in the definition of tasks and responsibilities; quantity, quality and timeliness of inputs for the project with respect to execution responsibilities, enactment of necessary legislation and budgetary provisions and extent to which these may have affected implementation and sustainability of the Project; quality and timeliness of inputs by UNDP and GoC and other parties responsible for providing inputs to the project, and the extent to which this may have affected the smooth implementation of the project.

4.3. Results

Attainment of Outcomes/ Achievement of objectives (R*):* Including a description *and rating* of the extent to which the project's objectives (environmental and developmental) were achieved using Highly Satisfactory, Satisfactory, Marginally Satisfactory, and Unsatisfactory ratings. If the project did not establish a baseline (initial conditions), the evaluators should seek to determine it through the use of special methodologies so that achievements, results and impacts can be properly established.

This section should also include reviews of the following:

Sustainability*:* Including an appreciation of the extent to which benefits continue, within or outside the project domain after GEF assistance/external assistance in this phase has come to an end.

- Contribution to upgrading skills of the national staff

5. Recommendations

- Corrective actions for the design, implementation, monitoring and evaluation of the project
- Actions to follow up or reinforce initial benefits from the project
- Proposals for future directions underlining main objectives

6. Lessons learned

This should highlight the best and worst practices in addressing issues relating to relevance, performance and success.

7. Evaluation report Annexes

Evaluation TORs
Itinerary
List of persons interviewed
Summary of field visits
List of documents reviewed
Questionnaire used and summary of results
Comments by stakeholders (only in case of discrepancies with evaluation findings and conclusions)

[4] Please see guidelines at the end of Annex 1 of these TORs for reporting of co-financing

Annex 3. List of persons interviewed

Name and position	Organization
Mme Patricia RAMAROJAONA, Chargée de programme	PNUD
M. Corneille AGOSSOU, Représentant Résident Adjoint	
M. Vonjisoa RASOLOARISON, Directeur régional projet	Fanamby
M. Serge RARAJAOBELINA, Secrétaire exécutif	
M. Mamy RAZAFINDRAKOTO, Resp. technique conservation et aménagement	
M. Andry RASOLONJANAHRY, Resp. technique base de données et suivi-évaluation	
M. Rivo ANDRIATSIMATAHOMANANA, Resp. technique appui à la production	
Mme Prisca RANDRIANASOLO, Resp. technique appui aux communes	
M. Claude ANDRIANOELISON, Resp. appui logistique	
M. Alain Chatard, chargé du tourisme	
M. Toky RASAMINAIVO, Resp, administratif financier	
M. Harinjaka RATOZAMANANA, chargé de communication	
Mme Malala, Assistante écotourisme	
M. Pierre-Yves TILLY, consultant	
M. Tovondriaka RAKOTOBE, Secrétaire Général, Point Focal FEM	MEEFT
Mme Vololoniaina RANDRIAMAMPIANINA, Directeur DREEFT	
M. Fenohery RANDRIANANTENAINA, Directeur Coordination, Planification, Suivi, Évaluation	
Mme Yvannie RABENTANY, Chef Service Suivi-Évaluation	
Mme Laurette RASOAVAHINY, Directeur SAP	
M. Éric RABENASOLO, Étude et création des AP	
Mme Hanitriniaina RAZAFINDRAHANTA, Chef CIREEF Moramanga	
M. Lucien RANDRIANARIVELO, Chef cantonnement, CEEF Anjozorobe	
M. Pascal RABARIJAONA, Chef cantonnement, CEEF Manjakandriana	
M. Fenosoa ANDRAIMAHENINA	Fondation Tany Meva
M. Heritiana RANDRIAMIARANA, Directeur de l'Évaluation Environnementale	ONE
M. Herijaona ANDRIAMANANTENASOA, Directeur des Opérations	ANGAP
Mme Vola RAVELOSON, Directeur Exécutif	ONTM
	PNF
M. Ndriana, Directeur des Opérations	PSDR
Gérard RAMBELOARISOA, Chargé de programme Forêt	WWF
Mme Nanie RATSIFANDRIHAMANANA, Représentant Régional Interim	
M. Mampionona AMBOARASOA, Agent de terrain Agriculture	ADRA
M. David Alexandre ROBINSON, Chef de Région	Région Alaotra – Mangoro
M. José RANAIVO, Député Anjozorobe, Président Commission Développement Rural (ex-SG MPrDAT)	District Anjozorobe
M. Georges Claude RAVOLOLONJATOVO, Chef District	District Moramanga
M. Mamy RANAIVONAMPOIZINA, Maire et Vice-président OPCI	Commune Ambohidronono
M. Raymond RAKOTOARIVELO, Adjoint au maire, Chef KASTI	Commune Alakamisy
M. le Maire	Commune Mandialaza
M. RANDRIAMALALA, Adjoint au maire (ex-technicien communal de l'OPCI)	
M. RAKOTOARISOA Denis, Président du Conseil Communal	
M. Lova ANDRIAMANANTSOA, Maire	Commune Anjozorobe
M. Harivey RAJAONA, Responsable Cellule Environnementale, CISCO	
M. Roland FIDÈLE, Proviseur Lycée Anjozorobe	
Association Hanitrala (Producteurs de riz bio) : M. Edmond RANDRIANKOTO Président du *fokontany*, M. Eugène RADAOROMANANA Vice- Président, M. Jean de Dieu RANDRIAHAJASOA Secrétaire, M. Dina RAKOTOARILALA Trésorier, et autres membres de la communauté	*Fokontany* Ambohibary

Association Antsahabe-Miray (Écotourisme) M. RAKOTONDRAFARA Président du *fokontany*, M. Jules RANAIVO Président de l'Association, Toussaint et Roland guides, femmes impliquées dans l'hébergement et la restauration, Olivine responsable de l'accueil	*Fokontany* Antsahabe
Association producteurs de gingembre Président de l'Association, Membres de l'Association et Membres de la communauté	*Fokontany* Antseva
Président du *fokontany*, Membres des KASTI, Membres de la communauté, notables	*Fokontany* Vodivato
Président *fokontany*, Membres de la communauté, collecteur d'information pour la Gazette rurale	*Fokontany* Ambohimanjaka

Annex 4. Field visits

Field visits in the project site « Anjozorobe–Angavo Forest Corridor» from 19 to 21 March and from 25 to 25 March 2008.

Date	Locality	Meetings
19 March	Ambohibary	Organic rice producers
	Anjozorobe	Water and Forest Section (*Cantonnement Eaux et Forêts*)
	Andreba	Women association: accomodation and catering, guides, President *fokontany* Antsahabe
20 March	Alakamisy	Mayor, Head of Kasti
	Vodivato	President *fokontany,* community, Head of Kasti
	Anjozorobe	Secondary school principal, person in charge of CISCO
		President of the association Antsahabe Miray
21 March	Anjozorobe	Mayor
		Head of District Anjozorobe
	Mangamila	Mayor
25 March	Moramanga	Head of CIREEF
	Antseva	Authorities, President and members of the ginger producers association
26 March	Mandialaza	Mayor
		ADRA Representative
	Ambohimandroso	Community
	Ambohidronono	Mayor
	Ambohimanjaka	President *fokontany,* Community,
27 March	Moramanga	Head of Region
		Head of District
	Manjakandriana	Head of Water and Forest Section (*Cantonnement Eaux et Forêts*)

Annex 5. Detailed financial assessment of communities' in-kind contribution to the project since the midterm evaluation. Calculations are based on a daily individual salary of 3,000 MGA.

Communities' in-kind contribution in the implementation of the tourism component (exchange rate: 1680 MGA=$US 1)

		Days	Daily salary	MGA	$US
2006	November	50	3 000	150 000	89
	December	30	3 000	90 000	54
2007	January	100	3 000	300 000	179
	February	150	3 000	450 000	268
	March	300	3 000	900 000	536
	April	350	3 000	1 050 000	625
	May	400	3 000	1 200 000	714
	June	350	3 000	1 050 000	625
	July	500	3 000	1 500 000	893
	August	500	3 000	1 500 000	893
	September	500	3 000	1 500 000	893
	October	500	3 000	1 500 000	893
	November	500	3 000	1 500 000	893
	December	500	3 000	1 500 000	893
2008	January	300	3 000	900 000	536
	February	300	3 000	900 000	536
	March	300	3 000	900 000	536
Total				16 890 000	**10 054**

Communities' in-kind contribution in the implementation of the community micro projects, land tenure offices, new taxation mechanism and organization of the World Environment Day events (exchange rate: 1680 MGA=$US 1)

Type	Detail	2006	2007	Total
School	labour (10 schools, 100 people (average) / school @ 3000 MGA / individual)		3 000 000	
Road Mangamila-Alakamisy	beneficiary contribution as per the financing document	5 000 000		
Rural Electrification	beneficiary contribution as per the financing document		8 000 000	
Land tenure office	Purchase of material info, POIC staff salary		3 000 000	
Training	Meeting rooms, participant transportation		1 500 000	
World Environment Day	Awareness activities in villages		1 400 000	
Workshop on taxation	Meeting room, housing		625 000	
Total MGA		5 000 000	17 525 000	
Total $US		2 976	10 432	**13 408**

Communities' in-kind contribution in the production of the rural newspaper (exchange rate: 1680 MGA=$US 1)

Year	Number of people	Number of days per month	Number of months	Daily salary	Total MGA	Total US $
2007	52	7	4	3 000	4 368 000	2 600
2008	52	7	3	3000	3 276 000	1 950
Total					7 644 000	**4 550**

Communities' in-kind contribution in the replication of new farming techniques (exchange rate: 1680 MGA=$US 1)

Type	Détail	2006	2007	Total
Trainings	travel & housing (12 days, 360 participants, 3000 MGA / day)	8 640 000	4 320 000	12 960 000
Seeds	transport & storage (15 days, 360 people, 3000 MGA / day)	8 100 000	8 100 000	16 200 000
Ginger	processing & storage (80 days, 52 people, 3000 MGA / day)		12 480 000	12 480 000
TOTAL MGA				41 640 000
TOTAL $US				**24 786**

Annex 6. Summary of the evidence given by community members (men and women) on the project impacts on their quality of life, in particular those related to setting up a protected area

Village de Sokafana (menuisiers et exploitants d'orchidées convertis en cultivateurs de riz bio) : Réduction des revenus du ménages suite à l'abandon de la menuiserie sauf pour ceux qui se sont convertis à la culture de riz biologique – La fabrication de lits pouvait apporter à un menuisier un revenu annuel de 120 000 à 160 000 MGA (15 à 20 lits par an par menuisier à 8 000 MGA par lit). La production de riz apporte un revenu moyen de 180 000 MGA par saison de production (moyenne de 10 VAT à 18 000 MGA) – les avantages de la certification du riz biologique ne profitent qu'aux membres de l'association qui comprend 28 membres d'un même village – une trentaine d'autres producteurs sont intéressés à intégrer l'association mais ses membres sont réticents et questionnés à ce sujet, disent préférer attendre que les bases soient plus solides – selon les hommes et les femmes rencontrés, l'impact de la mise en place de l'aire protégée sur leur qualité de vie, combiné à celui de la hausse du coût de la vie, se traduit par une réduction de la capacité d'acquisition de parcelles, une réduction de la capacité à scolariser les enfants, une réduction de la part de la production agricole vendue relativement à la part autoconsommée.

Fokontany d'Antsahabe : pas de contrainte identifiée – seulement des avantages liés à l'augmentation de l'approvisionnement en eau et au développement du tourisme communautaire.

Fokontany de Vodivato : pas d'avantage concret sauf l'augmentation de l'eau qui abonde depuis 2 à 3 ans – contrainte liée à l'interdiction d'accroître le périmètre des parcelles qui sont situées à l'intérieur de l'aire protégée : n'osent plus nettoyer le pourtour des parcelles ce qui favorise la prolifération des rats qui abîment leurs produits agricoles – les restrictions d'accès sont imposées de façon brusque alors que les avantages mettent beaucoup de temps à se concrétiser, d'autant plus qu'aucune activité de valorisation n'a été appuyée dans leur village, puisque celles-ci sont développées à la demande des communautés et qu'aucune demande spécifique n'a été faite en ce sens.

Village d'Antseva : Village « coincé » entre la plantation de pins de Fanalamanga et l'interdiction d'utiliser la forêt – avant : culture de riz, maïs, haricot, bananes par défrichement de la forêt – abandon de la culture en forêt a réduit la productivité – les impacts de la vente de gingembre ne se font pas encore sentir dans les ménages, sauf pour des avantages minimes comme la capacité d'acheter du café et du sucre, car les revenus supplémentaires sont soit réinvestis dans la production pour l'achat de semences, soit accumulés dans le compte de l'Union.

Fokontany Ambohimanjaka : impact positif pour les familles qui ont des parcelles de riz dans les bas-fonds en raison de l'augmentation de l'approvisionnement en eau, et pour les 5 producteurs de gingembre qui font partie de l'Union mais impact négatif pour le reste de la population dont la production de haricot, de maïs et de riz pluvial a diminué – problème de disponibilité de terres pour la culture – souhait de cultiver les terrains anciennement défrichés mais ceci pose le problème de distinguer les terrains en jachère des terrains en régénération – critère du diamètre du tronc…

Annex 7. GEF tracking tool for the Biodiversity Strategic Priorities #1 and #2

I. Project General Information

1. Project Name: Participatory Community Based Conservation of Biodiversity in the Anjozorobe Forest Corridor
2. Project ID (GEF): 1290
3. Project ID (IA): MAG/03/G31/A/1G/72
4. Implementing Agency: NGO Execution: Fanamby
5. Country(ies): Madagascar

Name of reviewers completing tracking tool and completion dates:

	Name	Title	Agency
Work Program Inclusion	N/A		
Project Mid-term	N/A		
Final Evaluation/project completion			FANAMBY (delegate manager)

5. Project duration: ***Planned*** ___4____ years ***Actual*** ____4___ years

6. Lead Project Executing Agency (ies): Ministry of Environment, Water, Forests, and Tourism

7. GEF Operational Program:

☐ drylands (OP 1)
☐ coastal, marine, freshwater (OP 2)
☐ forests (OP 3)
☑ mountains (OP 4)
☐ agro-biodiversity (OP 13)
☐ integrated ecosystem management (OP 12)
☐ sustainable land management (OP 15)
Other Operational Program not listed above:_____

8. Production sectors and/or ecosystem services directly targeted by project:

8. a. Please identify the main production sectors involved in the project. Please put "**P**" for sectors that are primarily and directly targeted by the project, and "**S**" for those that are secondary or incidentally affected by the project.
Agriculture_____S
Fisheries_____
Forestry_____P
Tourism_____S
Mining_____
Oil_____

Transportation_____S
Other (please specify)

8. b. For projects that are targeting the conservation or sustainable use of ecosystems goods and services, please specify the goods or services that are being targeted, for example, water, genetic resources, recreational, etc

1. water
2. recreation
3. soil
4. carbon cycle
5. wood

II. Project Landscape/Seascape Coverage

9. a. What is the extent (in hectares) of the landscape or seascape where the project will directly or indirectly contribute to biodiversity conservation or sustainable use of its components? An example is provided in the table below.

Targets and Timeframe Project Coverage	Foreseen at project start	Achievement at Mid-term Evaluation of Project	Achievement at Final Evaluation of Project
Landscape/seascape[5] area directly[6] covered by the project (ha)	66,000 hectares	52,200 hectares	52,200 hectares
Landscape/seascape area indirectly[7] covered by the project (ha)	-	39,800 hectares	39,800 hectares

Explanation for indirect coverage numbers:

The 39,800 ha comprise housing and cultivation areas outside the Protected Area which have an influence on the sustainable management of the Protected Area.

9. b. Are there Protected Areas within the landscape/seascape covered by the project? If so, names these PAs, their IUCN or national PA category, and their extent in hectares.

	Name of Protected Areas	IUCN and/or national category of PA	Extent in hectares of PA
1.	Anjozorobe – Angavo Forest Corridor (core zone)	II	12,000 hectares

[5] For projects working in seascapes (large marine ecosystems, fisheries etc.) please provide coverage figures and include explanatory text as necessary if reporting in hectares is not applicable or feasible.
[6] Direct coverage refers to the area that is targeted by the project's site intervention. For example, a project may be mainstreaming biodiversity into floodplain management in a pilot area of 1,000 hectares that is part of a much larger floodplain of 10,000 hectares.
[7] Using the example in footnote 5 above, the same project may, for example, "indirectly" cover or influence the remaining 9,000 hectares of the floodplain through promoting learning exchanges and training at the project site as part of an awareness raising and capacity building strategy for the rest of the floodplain. Please explain the basis for extrapolation of indirect coverage when completing this part of the table.

2.	Anjozorobe – Angavo Forest Corridor (buffer zone)	V	39,800 hectares

III. Management Practices Applied

10.a. Within the scope and objectives of the project, please identify in the table below the management practices employed by project beneficiaries that integrate biodiversity considerations and the area of coverage of these management practices? Note: this could range from farmers applying organic agricultural practices, forest management agencies managing forests per Forest Stewardship Council (FSC) guidelines or other forest certification schemes, artisanal fisherfolk practicing sustainable fisheries management, or industries satisfying other similar agreed international standards, etc. An example is provided in the table below.

Targets and Timeframe **Specific management practices that integrate BD**	**Area of coverage foreseen at start of project**	**Achievement at Mid-term Evaluation of Project**	**Achievement at Final Evaluation of Project**
1. farmers applying organic agricultural practices (rice, ginger)	-	80 hectares	85 hectares
2. community forest surveillance	28,000 hectares	28,000 hectares	28,000 hectares
3. sustainable freshwater crayfish harvesting		3 ha	3 ha
4. community-based ecotourism		6 ha	11 ha

10. b. Is the project promoting the conservation and sustainable use of wild species or landraces? Yes

If yes, please list the wild species (WS) or landraces (L):

Species (*Genus sp*., and common name)	Wild Species (please check if this is a wild species)	Landrace (please check if this is a landrace)
1. 550 plant species, 9 lemur species, 44 herpetofauna species, 74 bird species	x	
2. Freshwater crayfish	x	

10. c. For the species identified above, ***or other target species of the project not included in the list above (E.g., domesticated species)***, please list the species, check the boxes as appropriate regarding the application of a certification system, and identify the certification system being used in the project, if any. An example is provided in the table below.

Certification **Species**	A certification system is being used	A certification system will be used	Name of certification system if being used	A certification system will not be used
1. 550 plant species, 9 lemur species, 44 herpetofauna species, 74 bird species				x
2. Freshwater Crayfish				x
3. Ginger		x	Ecocert	
4. Red rice		x	Ecocert	
5. Hot pepper "pilopilo"		x	Ecocert	

IV. Market Transformation and Mainstreaming Biodiversity

11. a. **For those projects that have identified market transformation as a project objective**, please describe the project's ability to integrate biodiversity considerations into the mainstream economy by measuring the market changes to which the project contributed.

The sectors and subsectors and measures of impact in the table below **are illustrative examples, only**. Please complete per the objectives and specifics of the project.

Name of the market that the project seeks to affect (sector and sub-sector)	**Unit of measure of market impact**	**Market condition at the start of the project**	**Market condition at midterm evaluation of project**	**Market condition at final evaluation of the project**
Marketing of farm products produced through environmentally-sound farming techniques and in partnership with the private sector	Number of farm products under the fair trade and organic labeling process	Identification of farmers -and of their land plots- who can get involved in the fair trade and organic labeling process	Technical support given to producers to obtain a fair trade and organic label	Number of products: 3 (red rice, ginger, pilopilo pepper)
	Number of beneficiary rural households			Number of beneficiary households: 140
	Sale revenues			Revenues: 2,000,000 MGA
Community tourism	Number of visitors	Identification of potential sites and circuits, as well as determination of the strategy of intervention	Visitors: 254	Visitors: 650
	Number of beneficiary households		Number of beneficiary households: 348	Number of beneficiary households: 348
	Income generated by tourism to the benefit of the community		Income for the community: 754,500 MGA	Income for the community: 281,000 MGA (reduction due to ongoing work for the improvement of tourism infrastructures)

11. b. Please also note which (if any) market changes were directly caused by the project.

_____

V. Improved Livelihoods

12. For those projects that have identified improving the livelihoods of a beneficiary population based on sustainable use /harvesting as a project objective, please list the targets identified in the logframe and record progress at the mid-term and final evaluation. An example is provided in the table below

Improved Livelihood Measure	Number of targeted beneficiaries (if known)	Please identify local or indigenous communities project is working with	Improvement Foreseen at project start	Achievement at Mid-term Evaluation of Project	Achievement at Final Evaluation of Project
1. Number of villages working in close collaboration with the private sector in tourism, development and income generating projects	10 villages	Local communities living in connection with the forest corridor	10 villages working in close collaboration with the private sector	45 villages working in close collaboration with 7 private operators involved in the development of four income generating project : - ecotourism development and tourism promotion with private tour operators : 5 villages - ginger : 30 villages, - freshwater crayfish : 10 villages	56 villages working in close collaboration with 5 private operators involved in the development of four income generating project : - ecotourism development and tourism promotion with private tour operators : 5 villages - ginger : 42 villages - red rice : 5 villages - hot pepper (pilopilo) : 4 villages

VI. Project Replication Strategy

13. a . Does the project specify budget, activities, and outputs for implementing the replication strategy? Yes

13. b. Is the replication strategy promoting incentive measures & instruments (e.g. trust funds, payments for environmental services, certification) within and beyond project boundaries? Yes

If yes, please list the incentive measures or instruments being promoted: Organic farming certification

13. c. For all projects, please complete box below. Two examples are provided.

Replication Quantification Measure (Examples: hectares of certified products, number of resource users participating in payment for environmental services programs, businesses established, etc.)	Replication Target Foreseen at project start	Achievement at Mid-term Evaluation of Project	Achievement at Final Evaluation of Project
1. Number of hectares under sustainable forest management practices		14,000	14,000
2. Hectares of products (ginger, rice, hot pepper) under certified sustainable land use		80	85

VII. Enabling Environment

For those projects that have identified addressing policy, legislation, regulations, and their implementation as project objectives, please complete the following series of questions*:* 14a, 14b, 14c.

14. a. Please complete this table at **work program inclusion for each sector** that is a primary or a secondary focus of the project.
Please answer YES or NO to each statement under the sectors that are a focus of the project.

Sector Statement: Please answer YES or NO for each sector that is a focus of the project.	Agriculture	Fisheries	Forestry	Tourism	Other (please specify)	Other (please specify)
Biodiversity considerations are mentioned in sector policy	YES	YES	YES	YES		
Biodiversity considerations are mentioned in sector policy through specific legislation	YES	YES	YES	YES		
Regulations are in place to implement the legislation	YES	YES	YES	YES		
The regulations are under implementation	NO	NO	NO	NO		
The implementation of regulations is enforced	NO	NO	NO	NO		
Enforcement of regulations is monitored	NO	NO	NO	NO		

14. b . Please complete this table at **the project mid-term for each sector** that is a primary or a secondary focus of the project.
Please answer YES or NO to each statement under the sectors that are a focus of the project.

Sector Statement: Please answer YES or NO for each sector that is a focus of the project.	Agriculture	Fisheries	Forestry	Tourism	Other (please specify)	Other (please specify)
Biodiversity considerations are mentioned in sector policy	YES	YES	YES	YES		
Biodiversity considerations are mentioned in sector policy through specific legislation	YES	YES	YES	YES		
Regulations are in place to implement the legislation	YES	YES	YES	YES		
The regulations are under implementation	NO	NO	NO	NO		
The implementation of regulations is enforced	NO	NO	NO	NO		
Enforcement of regulations is monitored	NO	NO	NO	NO		

14. c. Please complete this table at **project closure for each sector** that is a primary or a secondary focus of the project. Please answer YES or NO to each statement under the sectors that are a focus of the project.

Sector **Statement: Please answer YES or NO for each sector that is a focus of the project.**	**Agriculture**	**Fisheries**	**Forestry**	**Tourism**	**Other (please specify)**	**Other (please specify)**
Biodiversity considerations are mentioned in sector policy	YES	YES	YES	YES		
Biodiversity considerations are mentioned in sector policy through specific legislation	YES	YES	YES	YES		
Regulations are in place to implement the legislation	YES	YES	YES	YES		
The regulations are under implementation	NO	NO	NO	NO		
The implementation of regulations is enforced	NO	NO	NO	NO		
Enforcement of regulations is monitored	NO	NO	NO	NO		

All projects please complete this question at the project mid-term evaluation and at the final evaluation, if relevant:

14. d. Within the scope and objectives of the project, has the private sector undertaken voluntary **measures to incorporate biodiversity considerations in production? If yes, please provide brief explanation and specifically mention the sectors involved.**

An *example* of this could be a mining company minimizing the impacts on biodiversity by using low-impact exploration techniques and by developing plans for restoration of biodiversity after exploration as part of the site management plan.

The project is developing organic and fair trade through connecting directly producers' associations (ginger and red rice) with the private sector

VIII. Mainstreaming biodiversity into the GEF Implementing Agencies' Programs

15. At each time juncture of the project (work program inclusion, mid-term evaluation, and final evaluation), please check the box that depicts the status of mainstreaming biodiversity through the implementation of this project with on-going GEF Implementing Agencies' development assistance, sector, lending, or other technical assistance programs.

Time Frame Status of Mainstreaming	Work Program Inclusion	Mid-Term Evaluation	Final Evaluation
The project is not linked to IA development assistance, sector, lending programs, or other technical assistance programs.			
The project is indirectly linked to IAs development assistance, sector, lending programs or other technical assistance programs.			
The project has direct links to IAs development assistance, sector, lending programs or other technical assistance programs.		x	x
The project is demonstrating strong and sustained complementarity with on-going planned programs.			

IX. Other Impacts

16. Please briefly summarize other impacts that the project has had on mainstreaming biodiversity that have not been recorded above.

The trust established through the inclusive approach, the implementing agency's continuous presence in the field and the various forms of direct support to local communities and communes, was a favourable and essential condition to raise awareness on ecosystem and biodiversity conservation.

Issue	Criteria	Score	Comments	Next steps
1. Legal status Does the protected area have legal status? *Context*	The protected area is not gazetted	0	Provisional protection order (December 2005) Management delegation contract (August 2006)	Achievement of fokontany development and management plans Environmental impact study for the establishment of the protected area Draft decree for gazetting the protected area in July 2008
	The government has agreed that the protected area should be gazetted but the process has not yet begun	1		
	The protected area is in the process of being gazetted but the process is still incomplete	**2**		
	The protected area has been legally gazetted (or in the case of private reserves is owned by a trust or similar)	3		
2. Protected area regulations Are inappropriate land uses and activities (e.g. poaching) controlled? *Context*	There are no mechanisms for controlling inappropriate land use and activities in the protected area	0		Adhesion to the protected area objectives by the MEEFT deconcentrated services and recognition of the role of the local surveillance committees in charge of informing them of offences
	Mechanisms for controlling inappropriate land use and activities in the protected area exist but there are major problems in implementing them effectively	1		
	Mechanisms for controlling inappropriate land use and activities in the protected area exist but there are some problems in effectively implementing them	**2**		
	Mechanisms for controlling inappropriate land use and activities in the protected area exist and are being effectively implemented	3		
3. Law enforcement Can staff enforce protected area rules well enough?	The staff have no effective capacity/resources to enforce protected area legislation and regulations	0	MEEFT deconcentrated services are the agents effectively in charge of carrying out controls and enforcing laws.	Same as 2
	There are major deficiencies in staff capacity/resources to enforce protected area legislation and regulations (e.g. lack of skills, no patrol budget)	**1**		

Issue	Criteria	Score	Comments	Next steps
Context	The staff have acceptable capacity/resources to enforce protected area legislation and regulations but some deficiencies remain	2		
	The staff have excellent capacity/resources to enforce protected area legislation and Regulations	3		
4. Protected area objectives Have objectives been agreed? *Planning*	No firm objectives have been agreed for the protected area	0		
	The protected area has agreed objectives, but is not managed according to these Objectives	1		
	The protected area has agreed objectives, but these are only partially implemented	2		
	The protected area has agreed objectives and is managed to meet these objectives	**3**		
5. Protected area Design Does the protected area need enlarging, corridors etc to meet its objectives? *Planning*	Inadequacies in design mean achieving the protected areas major management objectives of the protected area is impossible	0		
	Inadequacies in design mean that achievement of major objectives are constrained to some extent	1		
	Design is not significantly constraining achievement of major objectives, but could be improved	2		
	Reserve design features are particularly aiding achievement of major objectives of the protected area	**3**		
6. Protected area boundary demarcation Is the boundary known and	The boundary of the protected area is not known by the management authority or local residents/neighbouring land users	0		Adjustment of limits according to: • decisions made upon achievement and adoption of development and management plans • natural boundaries
	The boundary of the protected area is known by the management authority but is not known by local residents/neighbouring land users	1		

Issue	Criteria	Score	Comments	Next steps
demarcated? *Context*	The boundary of the protected area is known by both the management authority and local residents but is not appropriately demarcated	**2**		
	The boundary of the protected area is known by the management authority and local residents and is appropriately demarcated	3		
7. Management plan Is there a management plan and is it being implemented? *Planning*	There is no management plan for the protected area	0	Finalization postponed by successive electoral campaigns in 2007	Finalization and ratification of the development and management plans with communities, local authorities and MEEFT deconcentrated services before June 2008
	A management plan is being prepared or has been prepared but is not being implemented	**1**		
	An approved management plan exists but it is only being partially implemented because of funding constraints or other problems	2		
	An approved management plan exists and is being implemented	3		
Additional points *Planning*	The planning process allows adequate opportunity for key stakeholders to influence the management plan	**+1**		
	There is an established schedule and process for periodic review and updating of the management plan	+1		
	The results of monitoring, research and evaluation are routinely incorporated into planning	**+1**		
8. Regular work plan Is there an annual work plan? *Planning/Outputs*	No regular work plan exists	0	Finalization of the development and management plans postponed by successive electoral campaigns in 2007	Finalization and ratification of the development and management plans with communities, local authorities and MEEFT deconcentrated services before June 2008 Environmental impact study Safeguard plan
	A regular work plan exists but activities are not monitored against the plan's targets	1		
	A regular work plan exists and actions are monitored against the plan's targets, but many activities are not completed	**2**		
	A regular work plan exists, actions are monitored against the plan's targets and most or all prescribed activities are completed	3		

Issue	Criteria	Score	Comments	Next steps
9. Resource inventory Do you have enough information to manage the area? *Context*	There is little or no information available on the critical habitats, species and cultural values of the protected area	0		
	Information on the critical habitats, species and cultural values of the protected area is not sufficient to support planning and decision making	1		
	Information on the critical habitats, species and cultural values of the protected area is sufficient for key areas of planning/decision making but the necessary survey work is not being maintained	**2**	The participatory ecological monitoring has just started	Strengthening and extension of local committees training on ecological monitoring
	Information concerning on the critical habitats, species and cultural values of the protected area is sufficient to support planning and decision making and is being maintained	3		
10. Research Is there a programme of management-orientated survey and research *Inputs*	There is no survey or research work taking place in the protected area	0	Research on various subjects with the University and research institutions Ecological monitoring: water, target biodiversity, habitats	
	There is some ad hoc survey and research work	1		
	There is considerable survey and research work but it is not directed towards the needs of protected area management	2		
	There is a comprehensive, integrated programme of survey and research work, which is relevant to management needs	**3**		
11. Resource management Is the protected area adequately managed (e.g. for fire, invasive species,	Requirements for active management of critical ecosystems, species and cultural values have not been assessed	0		Development and management plans
	Requirements for active management of critical ecosystems, species and cultural values are known but are not being addressed	1		
	Requirements for active management of critical ecosystems, species and cultural values are only being partially addressed	**2**		

Issue	Criteria	Score	Comments	Next steps
poaching)? *Process*	Requirements for active management of critical ecosystems, species and cultural values are being substantially or fully addressed	3		
12. Staff numbers Are there enough people employed to manage the protected area? *Inputs*	There are no staff	0	Three-tier participatory management structure: fokontany level committees, communes/POIC, Regions	Terms and conditions and communication and coordination mechanisms between the three levels
	Staff numbers are inadequate for critical management activities	1		
	Staff numbers are below optimum level for critical management activities	2		
	Staff numbers are adequate for the management needs of the site	**3**		
13. Personnel management Are the staff managed well enough? *Process*	Problems with personnel management constrain the achievement of major management objectives	0		Capacity building for the structures (three levels) in accordance with the development and management plans
	Problems with personnel management partially constrain the achievement of major management objectives	1		
	Personnel management is adequate to the achievement of major management objectives but could be improved	**2**		
	Personnel management is excellent and aids the achievement major management objectives	3		
14. Staff training Is there enough training for staff? *Inputs/Process*	Staff are untrained	0	Election of new mayors and need for strengthening the capacity of the 2nd level of the management structure (Communes/OPCI) 3rd level is not definitively established	Capacity building for the structures (three levels) in accordance with the development and management plans
	Staff training and skills are low relative to the needs of the protected area	**1**		
	Staff training and skills are adequate, but could be further improved to fully achieve the objectives of management	2		
	Staff training and skills are in tune with the management needs of the protected area, and with anticipated future needs	3		
15. Current budget Is the current	There is no budget for the protected area	0	There is no proper budget for the protected area It is planned to establish a foundation which	Establishment of a foundation and of a special tax mechanism
	The available budget is inadequate for basic	**1**		

Issue	Criteria	Score	Comments	Next steps
budget sufficient? *Inputs*	management needs and presents a serious constraint to the capacity to manage		will manage the management budget from special taxes	
	The available budget is acceptable, but could be further improved to fully achieve effective management	2		
	The available budget is sufficient and meets the full management needs of the protected area	3		
16. Security of budget Is the budget secure? *Inputs*	There is no secure budget for the protected area and management is wholly reliant on outside or year by year funding	**0**	Same as 16	Same as 16
	There is very little secure budget and the protected area could not function adequately without outside funding	1		
	There is a reasonably secure core budget for the protected area but many innovations and initiatives are reliant on outside funding	2		
	There is a secure budget for the protected area and its management needs on a multi-year cycle	3		
17. Management of budget Is the budget managed to meet critical management needs? *Process*	Budget management is poor and significantly undermines effectiveness	0	Project Budget	
	Budget management is poor and constrains effectiveness	1		
	Budget management is adequate but could be improved	2		
	Budget management is excellent and aids effectiveness	**3**		
18. Equipment Are there adequate equipment and facilities?	There are little or no equipment and facilities	0	Transfer of materiel and equipment: 2 cars, computer equipment, databases, telecenter to the protected area management unit	Permanent office for the protected area (telecenter, material and equipment) Equipment for community ecological monitoring Distribution of the maps related to the
	There are some equipment and facilities but these are wholly inadequate	1		

Issue	Criteria	Score	Comments	Next steps
Process	There are equipment and facilities, but still some major gaps that constrain management	**2**		development and management plans to the various management structures and concerned entities. Communication equipment and solar panels transferred to the protected area office
	There are adequate equipment and facilities	3		
19. Maintenance of equipment Is equipment adequately maintained? *Process*	There is little or no maintenance of equipment and facilities	0		
	There is some ad *hoc* maintenance of equipment and facilities	1		
	There is maintenance of equipment and facilities, but there are some important gaps in maintenance	2		
	Equipment and facilities are well maintained	**3**		
20. Education and awareness Programme Is there a planned education programme? *Process*	There is no education and awareness programme	0	Communities' awareness is raised through activities conducted for the establishment and sustainable management of the protected area	On the basis of the terms and conditions, plan an appropriate capacity building program for every level of the management structure
	There is a limited and ad *hoc* education and awareness programme, but no overall planning for this	1		
	There is a planned education and awareness programme but there are still serious gaps	**2**		
	There is a planned and effective education and awareness programme fully linked to the objectives and needs of the protected area	3		
21. State and commercial neighbours Is there cooperation with adjacent land users? *Process*	There is no contact between managers and neighbouring official or corporate land users	0		
	There is limited contact between managers and neighbouring official or corporate land users	1		
	There is regular contact between managers and neighbouring official or corporate land users, but only limited co-operation	2		
	There is regular contact between managers and neighbouring official or corporate land users, and substantial co-operation on management	**3**		

Issue	Criteria	Score	Comments	Next steps
22. Indigenous people Do indigenous and traditional peoples resident or regularly using the PA have input to management decisions? *Process*	Indigenous and traditional peoples have no input into decisions relating to the management of the protected area	0		
	Indigenous and traditional peoples have some input into discussions relating to management but no direct involvement in the resulting decisions	1		
	Indigenous and traditional peoples directly contribute to some decisions relating to management	2		
	Indigenous and traditional peoples directly participate in making decisions relating to management	**3**		
23. Local communities Do local communities resident or near the protected area have input to management decisions? *Process*	Local communities have no input into decisions relating to the management of the protected area	0		
	Local communities have some input into discussions relating to management but no direct involvement in the resulting decisions	1		
	Local communities directly contribute to some decisions relating to management	2		
	Local communities directly participate in making decisions relating to management	**3**		
Additional points *Outputs*	There is open communication and trust between local stakeholders and protected area managers	**+1**		
	Programmes to enhance local community welfare, while conserving protected area resources, are being implemented	**+1**		
24. Visitor facilities Are visitor facilities (for tourists, pilgrims etc) good enough? *Outputs*	There are no visitor facilities and services	0	9 guides were trained to accompany visitors and see to the respect of natural resources integrity Local communities trained in accommodation and catering	Achievement of the reception infrastructure Strengthening the capacities of local communities concerned by tourism development
	Visitor facilities and services are Inappropriate for current levels of visitation or are under construction	1		
	Visitor facilities and services are adequate for current levels of visitation but could be improved	**2**		
	Visitor facilities and services are excellent for current levels of visitation	3		

Issue	Criteria	Score	Comments	Next steps
25. Commercial tourism Do commercial tour operators contribute to protected area management? *Process*	There is little or no contact between managers and tourism operators using the protected area	0	Boogie pilgrim, Oceane Aventures, Tany Mena tour	
	There is contact between managers and tourism operators but this is largely confined to administrative or regulatory matters	1		
	There is limited co-operation between managers and tourism operators to enhance visitor experiences and maintain protected area values	2		
	There is excellent co-operation between managers and tourism operators to enhance visitor experiences, protect values and resolve conflicts	**3**		
26. Fees If fees (tourism, fines) are applied, do they help protected area management? *Outputs*	Although fees are theoretically applied, they are not collected	0	Entrance fees paid to a special fund and not yet used Part of the income generated by guiding, accommodation and catering, goes for local development actions respectful of the environment	Entrance fees will serve for the protected area management
	The fee is collected, but it goes straight to central government and is not returned to the protected area or its environs	1		
	The fee is collected, but is disbursed to the local authority rather than the protected area	**2**		
	There is a fee for visiting the protected area that helps to support this and/or other protected areas	3		
27. Condition assessment Is the protected area being managed consistent to its objectives? *Outcomes*	Important biodiversity, ecological and cultural values are being severely degraded			Increase efforts for the sustainable development of forest products and forest restoration
	Some biodiversity, ecological and cultural values are being severely degraded	1		
	Some biodiversity, ecological and cultural values are being partially degraded but the most important values have not been significantly impacted	**2**		
	Biodiversity, ecological and cultural values are predominantly intact	3		
Additional points	There are active programmes for restoration			

Issue	Criteria	Score	Comments	Next steps
Outputs	of degraded areas within the protected area and/or the protected area buffer zone	+1		
28. Access assessment	Protection systems (patrols, permits etc) are ineffective in controlling access or use of the reserve in accordance with designated objectives	0		

Issue	Criteria	Score	Comments	Next steps
Is access/resource use sufficiently controlled? *Outcomes*	Protection systems are only partially effective in controlling access or use of the reserve in accordance with designated objectives	**1**	Community surveillance: Since they have no formal authority, local committees fear possible reprisals However, Water and Forest Service's presence is not adequate to exert an effective control	Adhesion to the protected area objectives by the MEEFT deconcentrated services and recognition of the role of the local surveillance committees in charge of informing them of offences
	Protection systems are moderately effective in controlling access or use of the reserve in accordance with designated objectives	2		
	Protection systems are largely or wholly effective in controlling access or use of the reserve in accordance with designated objectives	3		
29. Economic benefit assessment Is the protected area providing economic benefits to local communities? *Outcomes*	The existence of the protected area has reduced the options for economic development of the local communities	0	Ecological services (stabilizing stream flows) : irrigation of rice fields, water provision Benefits from ecotourism	Increase efforts for the sustainable development of forest products
	The existence of the protected area has neither damaged nor benefited the local economy	1		
	There is some flow of economic benefits to local communities from the existence of the protected area but this is of minor significance to the regional economy	**2**		
	There is a significant or major flow of economic benefits to local communities from activities in and around the protected area (e.g. employment of locals, locally operated commercial tours etc)	3		
30. Monitoring	There is no monitoring and evaluation in the protected area	0	The participatory ecological monitoring has	

and evaluation Are management activities monitored against performance? *Planning/Process*	There is some ad hoc monitoring and evaluation, but no overall strategy and/or no regular collection of results	**1**	just started, therefore results cannot be used yet A system for the monitoring and evaluation of activities is in place but local actors still have to adopt it	
	There is an agreed and implemented monitoring and evaluation system but results are not systematically used for management	2		
	A good monitoring and evaluation system exists, is well implemented and used in adaptive management	3		
TOTAL SCORE		**66**		