CEPF FINAL PROJECT COMPLETION REPORT

Organization Legal Name:	The Peregrine Fund, Inc.
Project Title:	Developing the Tambohorano and Bealanana Protected Areas While Strengthening Local Community-Based Resource Management
Date of Report:	
Report Author and Contact Information	

CEPF Region: Madagascar and Indian Ocean Islands

Strategic Direction: Consolidation

Grant Amount: US$150,000

Project Dates: 1 July, 2009 to 31 December, 2011

Implementation Partners for this Project (please explain the level of involvement for each partner):

National level in the ministries we are working with *Direction du Système des Aires Protégées* (DSAP) is the organization that all paper work goes to for determining the protected areas and ecological monitoring; and *Direction de la Valorisation des Ressources Naturelles* (DVRN) is in control of CITES and natural resource management for authorizing the management system in the SAPM site.

International NGO partners are: Conservation International – Madagascar Project assistance in defining protected area boundaries and BirdLife International - ASITY will provide information exchange from their project in the Mahavavy-Kinkony Complex.

The local associations in Manambolomaty Lakes Complex/Ramsar/SAPM site: FIZAMA (FIkambanana Zanatany Andranobe MIray) and FIFAMA (FIkambanana FAmpandrosoana Mamokatra Ankerika) provided training and their experiences on local resources management and protected area work for local mayors, district and regional authorities, technical service representatives (Forestry, Fisheries, and Development Departments). Madagascar's National Environmental Office (ONE) will act as partners by providing training on technical issues and strategies to the local association partners: FIMITOVE (FIkambanana MIaro TOntolo iainana VEromanga), FIVOMA (FIkambanana VOnjisoa MAndrozo) and ZAMAMI (ZAnatany MAndrozo MItambatra) at Tambohorano, and FBM (Fikambanana Bemanevika Miraihina) and FIMAKA (FIkambanana Miaro ny Ala Ketsany Amberivery) at Bealanana. These associations will act as partners by receiving training on technical issues and strategies to accomplish their protected area status.

Conservation Impacts

Please explain/describe how your project has contributed to the implementation of the CEPF ecosystem profile.

Please summarize the overall results/impact of your project.

Planned Long-term Impacts - 3+ years (as stated in the approved proposal):

Bealanana and Tambohorano become permanent protected areas and add to Madagascar's protected area network (SAPM) as and local associations manage their natural resources sustainably and independent of the national government.

Actual Progress Toward Long-term Impacts at Completion:

The two sites received the decree for Temporary Protection status, (Ref.: Arreté interministériel n°52005/2010 portant protection temporaire globale des sites SAPM, December 2010):

- Mandrozo NPA at Tambohorano: 15,145 hectares including Mandrozo Lake, other wetlands, and surrounding habitats (forest and savanna), and

- Bemanevika NPA at Bealanana: 32,130 hectares of a mosaic ecosystem mosaic including four lakes, marshes, grasslands and rainforest).

Planned Short-term Impacts - 1 to 3 years (as stated in the approved proposal):

Local associations in Bealanana and Tambohorano sites work together in managing their resources and strive towards attaining protected status at the two sites.

Actual Progress Toward Short-term Impacts at Completion:

- The local associations (at Mandrozo: FIMITOVE, FIVOMA and ZAMAMI; at Bemanevika : FBM and FIMAKA)are the local managers of the new protected areas. They received the official GELOSE transfer (community-based natural resource management system) from the Madagascar government. This was an outstanding achievement for the associations. For example, at Mandrozo Lake the representatives from Department of Protected Area System (DSAP) and Department of Natural Resources Promotion (DVRN) and in addition the regional and local authorities were invited and attended the official GELOSE transfer ceremony for signature and handling of the contract.

At Bemanevika NPA (Bealanana) - The population size of the Madagascar Pochard (*Aythya innotata*) has increased from 9 adults in 2007 to 22 in 2009, and up to 33 at the end of year 2011.

At Mandrozo Lake NPA (Tambohorano) - The population size of Madagascar Fish Eagle (*Haliaeetus vociferoides*) of Mandrozo is stable at 9 breeding pairs during the project.

- At Mandrozo, the local communities planted 49,892 native forest trees for the reforestation program.

- Contribution to the national capacity building: 1 bachelor degree and 1 master's degrees were defended, and 3 master's degree and 1 PhD degree candidates are in the process of writing their theses and doctorate.

- The project has started to implement the Environmental and Social Safeguard Plan. Several community development activities were undertaken.

Please provide the following information where relevant:

Hectares Protected:
Bealanana : 32,130 ha
Mandrozo : 15,145 ha

Total = 47 275 ha

Species Conserved:

At Bemanevika:

- Madagascar Pochard (Aythya innotata);
- Madagascar Serpent-eagle (*Eutriorchis astur*);
- Madagascar Red Owl (*Tyto soumagnei*);
- Madagascar Marsh Harrier (*Circus macrosceles*);
- Mellar's Duck (*Anas melleri*);
- Madagascar Pond Heron (Ardeola idae)
- Lemur community: Brown lemur (Eulemur fulvus), Bamboo Lemur (*Hapalemur occidentalis*), Sambirano Woolly Lemur (Avahi unicolor), Hairy-Eared Dwarf Lemur (*Allocebus trichotis*), Greater Dwarf Lemur (*Cheirogaleus major*), Mouse Lemur (*Microcebus rufus*);
- Reptile: Hafahafa Chameleon (*Calumma hafahafa)*

Mandrozo:

- Madagascar Fish Eagle (*Haliaeetus vociferoides*);
- Sakalava rail (*Amaurornis olivieri*);
- Madagascar Heron (*Ardea humbloti*);
- Madagascar Pond Heron (*Ardeola idae*);
- Madagascar Sacred Ibis (*Threskiornis bernieri*);
- Lemur community: Decken's Sifaka (*Propithecus deckeni*), Brown Lemur (*Eulemur rufus*) and Mouse Lemur (*Microcebus rufus*);

Reptile: Neon Day Gecko (Phelsuma klemmeri)

Corridors Created:

NA

Describe the success or challenges of the project toward achieving its short-term and long-term impact objectives.

- All processes of definitive protected area creation were made. The supporting documents were submitted to the Ministry Department of Forest.

- The conservation target species of the two NPA were ensured.

- Local associations, the local and regional authorities were involved in NPA activities.

Were there any unexpected impacts (positive or negative)?

The Mandrozo Lake wetland area was proposed as a new Ramsar site. Mandrozo (the Ramsar Site Information Sheet) documents have been submitted by TPF to the Forest Department, and then passed by the Malagasy government to the Ramsar International Office.

Project Components

Project Components: *Please report on results by project component. Reporting should reference specific products/deliverables from the approved project design and other relevant information.*

Component 1 Planned:
Developing protected status for the Bealanana and Tambohorano sites.

Component 1 Actual at Completion:

Local and regional authorities were involved in the SAPM initiative at Tambohorano and Bealanana (these are continuous activities)

Local communties, local and regional authorities were represented in the management structure of the NPA at the different levels.

At Tambohorano, the Commune Council presidents from Tambohorano, Andranovao and Veromanga and the General Secretary of Melaky Region are members of the Committee of Orientation and Evaluation (COE). They participated in the first meeting on developing the SAPM process for the Mandrozo Lake new protected area (NPA) during July 2009 at Maintirano. This meeting included the mayors from the three rural communes who are members of the management platform of the (NPA) and all local and regional authorities concerning the creation of the NPA, too.

At Bealanana, the Bemanevika Protected Area (PA) Management Plan was validated by the regional and local authorities during a workshop held in July at Bealanana. All stakeholders were present including the General Secretary of the Sofia Region, a representative of the Chief of District, mayors from Antananivo-Haut, Beandrarezona and Bealanana, the Fokotany (heads of village) around the PA, the Gendarme (Military Police), the Forestry Service Officer, and the Rural Development Service Officer. Conservation priorities were identified during this workshop which identified several conservation target species including the Madagascar Pochard *Aythya innotata* and other threatened waterbirds, lemurs, the newly described and endangered chameleon *Calumma hafahafa*, the Madagascar Harrier *Circus macrosceles*, and target habitats including the rainforests, savannas, and wetlands (including the 4 lakes and several marshlands).
The management platform was formed to empower the local communities as they are the main group coming from the grassroots level. In addition, the documents defined the action plans for mitigating measures for wildfire management, ecotourism development, reforestation, apiaries and environmental education.

The Operational Plan regarding to the current project was approved by the Regional Department of Environment and Forest (DREF).

Each year, the NPA annual work plans are submitted and discussed with the Regional Environment and Forests Officers. The Mandrozo Lake activity work plan was approved by the Melaky DREF and the Bemanevika was approved by Sofia DREF.

Judicial status of the land in the Mandrozo Lake protected area was delivered by the Domain Services. The judicial status of the land in the new protected areas was not achieved. Thus, the administrative procedure is not clearly defined yet. The Ministry Department of Environment and Forests is currently working on a land tenure law regarding the case of the new Protected Areas (of the IUCN categories II, V, VI) in Madagascar.

Instead the management platform of Tambohorano/Mandrozo PA started the process for the judicial status through the demand with the Domain Services (Service des Domaines). The Topography Service of Maintirano accepted and approved the protected area sketch plan.

Description of the Delimitation of the NPA

The Department of Protected Area System is a department within the Ministry of Environment and Forestry (MEF)) (DCBSAP) and is in charge of the *Direction of Systeme des Aires Protegees* (SAPM), but it does not have the appropriate text regarding the official delimitation process for all newly protected areas, the Services of Domains (the department of the government which manages state own lands and land holdings) could not visit the Mandrozo site for determing the official on site delimitation boundries.

Consequently, Mandrozo PA delimitation limits were marked with yellow paint on trees at every 10 meters. In addition, seven display panels were installed at the main access points into the Mandrozo Lake protected area during October 2010. These panels provided information on the limit of the new PA including information on the status of the area being managed in collaboration with the local communities.

For the Bemanevika NPA, five NAP display panels were constructed and set up at 5 main access points in May 2010. Two were placed at Beandraezona commune (at Analavakivoho and Antsalovana), and 3 placed at Antananivo-Haut commune (at Ambongamarina, Andilamavo and Ansdranoasara) and all were approved by the local communties and authorities during a meeting held in June 2010.

The creation of COE in both NPA at Mandrozo and Bemanevika sites.

For Mandrozo PA, the steering committee (COE) is responsible for the Orientation and Evaluation of the Mandrozo PA activities and represents the management structure at the regional level. This COE was created in July 2009 at Maintirano. It was constituted by the regional technical services, the presidents of communal counselor from the three communes (Tambohorano, Andranovao and Veromanga), and representatives of various NGOs. As planned in its program, the first meeting focused on Terms of Reference (TOR) and establishing the Work Plan. The Work Plan was implemented in August 2009. The first and second visits to the field by the COE members were carried out in September and November 2009. The COE members made three field visits in 2010 during July, August and October, too. They validated the Annual Work Plan of the Management Platform in February 2010. In 2010, members of the COE provided training to the local communities on fire management during July and they assisted the local associations in law enforcement in October. They discussed and gave an orientation meeting to the local associations regarding the "*Cahier de Charges*" (Terms of Reference (TOC)).

For the development of the management structure of the Bemanevika NPA:
(A) AT THE LOCAL LEVEL: this project focus is on the community-based natural resource management system and the principle objective is to have the local people and communities involved and empowered to manage their local resources: (1) Two local associations (FIMAKA and FMB) were designated to be the local managers of the protected area; (2) Organizational support was provided to the two local associations in March 2010 for FIMAKA and in July 2010 for FBM; (3) The "*Cahier de Charge*" (Terms of References (TOR)) of the two associations was updated; (4) An evaluation of the two associations was conducted by DREF (Regional Department of Environment and Forest Service) which discussed the policies and orientation regarding natural resources and the protected area management; (5) The boundary limit between the community-based natural resource management areas of the two local associations was updated with local consultants in October 2010; and (6) The two associations have developed the status and regulation of the Federation in October 2010.

(B) AT THE REGIONAL LEVEL: The NPA steering committee (Comité d'Orientation et d'Evaluation (COE)) was created in May 2011. The status and the internal organization of the COE was then established and the committee was composed of 14 members, led by the DREF (Department of Environment and Forest), and includes 11 Regional Sectorial authorities plus representatives of the Bealanana Gendarme (military police) and the two mayors from Antananivo and Beandrarezona. This was one of the steps towards obtaining the PA definitive status. One of the COE's responsibilities was to support the administrative process of the PA creation. Basic information for the Environmental Impact Study (EIS) was gathered, and EIS fieldwork began and PSS workshops took place for local validation. EIS and PSS were locally approved at the Commune level.

For Mandrozo NPA, the initial work of the Environmental and Social Impact Study involved hiring three consultants to collect baseline information in the field. Information on the biological and socio-economic assessment surveys were combined with documents of the PRD Melaky region and the Tambohorano/Mandrozo Management Plan and Scheme. Before the field work took place courtesy visit was executed by the Chief of Sofia Region and DREF Melaky. The field work was from August 8th to September 7th, 2009. The final report, which was a combined document mentioned above as the Environmental and Social Management Plan (PGES) and this was in the final phase of this process.

The local validation of EIS and PSS were carried out at Andranovao on September 3rd, 2009 through a workshop. The local authorities (Mayors, Chief of Fokontany and President of Commune Council), the Womens' associations from the three rural communes, the "Lonaka" (Ray aman-dReny who is the village elder and traditional leader of the society), representatives for the fishermen, teachers from the private and public schools and representatives from the three local association's (FIMITOVE, FIVOMA and ZAMAMI) were all involved in the workshop totaling 101 participants.

The PGES was approved at the Regional level during the workshop held in Maintirano on October 20th, 2009 for Mandrozo site. The Chief of Melaky Region opened this workshop and the DREF of the Melaky Region lead the session. The Chief of the Maintirano District, all governmental technical services personnel (Fisheries, Domains, Topography and Statistics) in Maintirano, representatives of the three associations, local authorities, representatives of Gendarmerie (Military Police), a representative of the Working Group for the Regional Development (GTDR) and Platform Management board members were all involved in this workshop totaling 44 persons including 6 from TPF, 12 from the Maintirano regional government and 26 from the rural region attended this workshop. The workshop discussed the EIS and PSS results in the morning session and discussions and validations of the EIS and PSS were in the afternoon session.

At the Bealanana site, the local validation meetings were held in Bemanevika village (December 2nd, 2009) and in Beandrarezona (December 9th, 2009). In total, 77 persons from the local communities participated in these meetings. The revised document of the PGES was also discussed and approved during a regional workshop on February 4th, 2010.

Office of National Environment (ONE) approbation of PGES (Tambohorano)

PGES submission to DSAP (Tambohorano)

We contacted the National Office of Environment (ONE) for submitting the (Environment and Social Safeguard Plan) PGES documents for both Tambohorano and Bealanana, and ONE requested 20,000,000 MGA per site ($10,000) for the environmental permit processing, and this cost was unbelievable and unreasonable we thought. After hearing the cost for these permits, we contacted and discussed with Mr. Michele Andrianarisata (Conservation Internatioal co-leader of SAPM committee) and Mr. Rina (ex-head of Makira Conservation Project) for their advice on the permit costs. They both felt it exorbitant, unusually and uncharacteristically high, too. For

example, the Makira Project the fee was 1,000,000 AR ($500). So were are still in discussion of this feel and negotiating this fee with the Department of Environment and Forest.

We submitted the PGES and PAG documents directly to the DSAP in order that they will facilitate this procedure.

Protected area status of Mandrozo and Bemanevika sites

The Mandrozo and Bemanevika new protected areas are preparing their management transfer documents and decree for obtaining definitive status. However, the political situation in Madagascar has hampered most of the governmental administrative work at the ministry levels.

While the project has completed almost all the steps in the process towards permanent protected status for the two sites (Mandrozo and Bemanevika), the Ministry of Environment and Forest has just published the temporary protection (Ref.: Arreté interministériel n°52005/2010 portant protection temporaire globale des sites SAPM, December 2010).

Both, Mandrozo and Bemanevika sites have obtained the governmental order as new protected areas under the temporary protection for two year. Until then, TPF proposes to be the delegated manager of the two NPAs. After obtaining the definitive status, the local communities will become the official local resource managers. The process of getting the official management delegation for both sites is in negotiations with the Ministry of Environment and Forest (MEF). Two meetings and two workshops were held and organized by the Forest Department regarding the Management delegation for all Madagascar protected area (SAPM) sites.

The sites are decreed as official protected areas with definitive status

The SAPM (*Système d'Aires Protégées de Madagascar*) Commission's is to be the national-level validating committee for all documents pertaining to the creation of a new protected area. This committee is led by the DCBSAP (*Direction de la Conservation de la Biodiversité et du Système des Aires Protégées*, at the Forest Department). The documents for Mandrozo and Bemanevika new protected areas (NPA) have been submitted to the DCBSAP and are waiting for avalidation meeting. The documents consist of the Management Plan, Environmental and Social Safeguard document (this one includes the Environmental Impact Assessment - EIS), Business Plan document (developed in July 2010 for both areas, Bemanevika and Mandrozo Newly Protected Areas), and Public Consultation reports.

Until now, no NPA in Madagascar has been decreed for definitive status because of the current political situation. The new law called 'Code des Aires Protégées' has not been promulgated yet. At this point in time, the Forest Department cannot state the official definitive status for the two protected areas we are working, but they are in line for definitive status as soon as the government begins decreeing protected areas.

Component 2 Planned:
Strengthening local community-based resource management and capacity.

Component 2 Actual at Completion:

Implement Management Plan of the new protected areas.

GELOSE (community-based natural resource management system) with the three associations formed a committee platform as the future managers of the Mandrozo Lake Protected Area in Tambohorano which included the following activities:

- The DINA (traditional by laws) was approved by Ministry of Justice in Maintirano;
- Ecological monitoring was completed for Madagascar Fish Eagles, waterbirds and lemurs;
- Monitoring of fishing activities;
- Collection of tree seeds for nursery and forest restoration programs;
- Coconut seedlings for Tambohorano commune and orange seedlings for Veromanga commune;
- COE structure was established and is operational.

At the Bealanana site, the implementation of the protected area Management Plan (PAG) begun with the development of one of the mitigating measures. Two main measures were identified during field activities: (1) improvement of rice cultivating techniques in selected areas, and (2) establishing an apiary (bee husbandry). All discussions of the management plan and protected area took place within the local communities.

Community-based natural resource management system:
Contracts approved by the Environment and Forest Department (DEF) for the resource management transfer to the 3 associations in Mandrozo at Tambohorano and 2 associations in Bealanana at Bealanana

In Madagascar, the community-based natural resource management system is law governed by GELOSE (*Gestion Locale Securisée*). The official agreement is signed between the local manager of the target resources within the designated areas with the local associations, the Rural Communes and the Department of Environment and Forest (DEF).

The Peregrine Fund ensured financial, advisory and technical support, while the Communes and the DEF are the administrative partners. The "*Cahier de Charges*" (TOR) were established for the three associations at Mandrozo (Tambohorano) and for the two associations at Bemanevika (Bealanana).

Three contracts on community-based natural resource management were approved and officially authorized for the 3 associations: FIVOMA (5,081 ha), FIMITOVE (3,841 ha) and ZAMAMI (4,416 ha) in Tambohorano and the official ceremony of the GELOSE transfer took place on September 30th, 2009 at Andranovao. National and regional authorities including the Department of Protected Area System (DSAP), Department of Natural Resources Promotion (DVRN) representatives, the Secretary-General of Melaky Region, DAGT (Director of General Affairs and Techniques - in each region there is the Region Head overseeing this, the Departments of General Secretary (SG), the Director of Regional Development (DDR), and the DAGT of Melaky Region and the Chief of Maintirano District attended the official ceremony. All local authorities at organizational levels, fishermen, members of the three associations, the women's associations from the three rural communes and the Lonaka (village elder leader) were involved in the ceremony. This was a great accomplishment and extremely important result in such a short time period for these associations from being created in 2007 and receiving official GELOSE authorization in 2009. This was the highlight for this quarter. The managed area is composed of the Mandrozo Lake (1,807 ha) and the surrounding forest and savanna with 5,081 ha for FIVOMA, 3,841 ha for FIMITOVE, and 4,416 ha for ZAMAMI. The associations are well organized and managing the fishery activities in the lake and wood resources from the forests.

At Bemanevika area, two resource transfer contracts were evaluated and approved by the Sofia DREF. The "*Cahiers de Charge*" of the two existing associations FIMAKA (18,000 ha) and FBM (19,041 ha) were updated for consideration as a new protected area. The protected area includes wetlands (four lakes and vast array of marshes), rainforest blocks and grassland habitat. In fact, an evaluation meeting of the two associations (FIMAKA and FBM) was conducted by Regional Department of Environment and Forest Service (DREF) in October 2010. This evaluation discussed the policies and orientation regarding the community-based natural resource management and the protected area management. It was decided that the contract for FIMAKA was renewed and the first contract for FBM was established. Also, the boundary limit between the community-based natural resource management areas for both associations in the protected area

was updated with local consultants during October 2010, and the draft contracts and "*Cahier de Charge*" were updated for both associations.

Associations are functioning, and supporting documents are up to date with regard to the monitoring and evaluation of the associations' activities

TPF's supports focused on: (1) improving the association's structure, (2) developing management tool documents for the associations, (3) local capacity building through training workshops, and (4) accompanying the associations in their community projects.

For Bemanevika NAP, two version of the Management Plan (PAG) were produced, on in French for the authorities and the other in Malagasy for the local communities. In June 2010, PAG documents were submitted to the local authorities including the two associations FIMAKA and FBM, village mayors, the head of the Bealanana District, and regional authorities from Antsohihy. Afterwards, a training workshop was organized for the local associations and the village mayors on the use and objectives of the Management Plan. This two day training workshop was followed by organizing the local communities from the two communes of the NAP at Amberivery village for the Beandrarezona commune, 53 members from the FIMAKA Association were present and 49 members from the FBM Association at Bemanevika village for the Antananivo-Haut commune. In addition, both local associations held meetings to renew and restructure their local community steering committees during April 2010 for FIMAKA Association and in June 2010 for FBM Associations. The Federation of the two associations, the status and the regulation of the Federation were developed with members selected from both associations. As part of the local capacity building for the associations at Bemanevika Protected area, the President of the Association Federation participated in a national workshop on an information exchange and evaluation with a perspective on community-based natural resource management (*transfert de gestion de ressources naturelles aux communités locales*) in the capital city Antananarivo. This workshop was organized by the Environmental and Forest Ministry (MEF) during 2011. Capacity building on the community-based natural resource management system focused on training to strengthen the local associations and communities to be more involved and empowered in managing their local resources. In September 2011, the two local community associations (FIMAKA and FBM) were trained in establishing their work plans, their management objectives, rules clarifying the sustainable use of natural resources and sanctions and infractions on persons not abiding by the management policies and laws.

The local management structure at Mandrozo site was established before the officialization of the local management transfer during September 2009. An Association Platform was established from the three association members who supervised all the community activities at this site. Two meetings focused on capacity building of three associations at Tambohorano (ZAMAMI, FIMITOVE, FIVOMA) in the use of the PAG were organized. Platform board members, associations and communes representatives participated in the training as well.

The Mandrozo NPA steering Committee (COE, *Comité d'Orientation et d'Evaluation*) was created in 2009. The first COE meeting occurred during February 2010 focusing on activity plan validation and the platform activity report evaluation. The Mandrozo COE was functioning well in 2010. The COE members visited the area in August 2010 and focused on enforcement actions, and in October 2010 they focused on a survey of the associations' activities, and Antsakoamalinika an illegal camp that was established. Another COE meeting took place in Maintirano in December 2010 for validating the Associations' Platform activities report. The Regional Fisheries Department Representative completed a fisherman permit patrol from 15-18 June and signed and distributed professional fishermen ID cards for the 2010 fishing season. COE representatives organized a capacity building focusing on fire prevention, association management policies and how to use the PGES document. The targeted entities were the K3M fire committee, KOTIRA (water and forest local committee), local authorities, local associations and the management platform. The draft of the 5-year tree plantation plan was established.

Concerning the control and surveillance at Mandrozo NPA, the association members and technicians of TPF patrolled periodically and gave public awareness information on fishing regulations and resolved any unlawful fishing activities. Some breaches of the regulation were recorded and actions were taken according to the *DINA* (traditionally social norms or codes of conduct that govern relations within and between communities), which regulates the permitted and banned activities including confiscation of 10 illegal nets (which were to long with small diameter mesh), confiscation of salted fish (forbidden in the area), equipment confiscation of 3 irregular canoes, fines imposed for fishing in the core area (the nonfishing zone is a 2 km marked area with red plastic buoys), for *hatsaka* practice (cutting forests for agricultural use), and fines for allowing uncontrolled fires to spread in the sacred zone at Anosisarotsy. The money collected from these fines amounted to 240,000 Malagasy Ariary ($120) which was deposited into the association's bank account.

An association exchange took place from 28-30 July 2010 at Belitsaka to look at the tree plantation projects developed by the SAF/FJKM with the local associations. The three associations learned some valuable lessons and enhanced their knowledge in tree plantations.

Surveillance and control, fire control and prevention

- local committees in Bealanana for forest/savanna fire prevention were set up and functioning;
- the annual work plan of the committee for fire prevention was developed and implemented; and
- the fire prevention measures (wildfire awareness campaigns and meetings to reduce the area burned in forests and savannas) were setup and implemented.

Prepare and monitor of fire prevention activities

At Bemanevika, a team composed of TPF technicians, Gendarmes, and Communes were led by the Forest Service Officer of Bealanana to carry out an awareness campaign on wildfires at 10 villages around the PA in July 2010. They also conducted meetings with people in the villages where there were wildfires in the proximity. There were 421 persons recorded attending these meetings, including 104 women. The number of fires had decreased from 13 fires (2009 - 1,300 ha) to 9 fires (2010 - 900 ha) within the two communes (Antananivo-Haut and Beandrarezona) in the Bemanevika PA. This information was calculated from the data provided by the satellite-based monitoring of fire occurrences provided by the Fire Alert System. In 2010, 6 local committees were created and trained in fire control and prevention. The training was provided by the local Forest Service Officer in collaboration with The Peregrine Fund. There were 30 persons (5 from each committee) who received fire control/prevention training. All of them were equipped with uniforms (shirt, pants, beret and sandals) and 60 whistles. Periodical meetings were organized by the members of this committee. In August 2010 and 2011, the local committees conducted the awareness campaigns about wildfire control and prevention techniques to the local communities of the 12 villages surrounding the PA, and the implementation of the traditional bylaws (*DINA*). Work plans on wildfire control were developed and implemented from September to November 2011 for each village. This resulted in the decrease in wildfires in the grasslands and savannas inside the Bemanevika PA after the fire committees were functioning properly. As it is a nonpaid activity, and because of the great distance between villages and a large area to patrol, they claimed more support was needed such as for per diem and more personnel, as 30 persons were too few to handle this responsibility. In addition, there was the added responsibility of the fire awareness campaign in the local communities. At the Bemanevika site, an unexpected and surprise field visit was conducted by the Local Forest Officer (Ranger), the Gendarme and the local association representatives financed by the project in April 2011. As result, an illegal wood cutters camp was dismantled from the Bemanevika Forest, and 200 planks were confiscated. In addition, two persons were caught deforesting an area of land for agriculture use.

For Mandrozo Lake protected area, a local committees for fire prevention, called K3M (Komity Miady amin'ny Motro ao Mandrozo) were created in 2009, and functioning well. These fire prevention committees were in charge of the inspection and patrol once a week and work on

public awareness with the local population. Every year, the K3M elaborated their annual work plan. In addition, the committee has developed their 5-year work plan. Members of this fire prevention group were composed of 25 persons from the three associations (8 for ZAMAMI from Ampiliravao, Andapabe, Antranokoaky villages; 9 for FIVOMA from Ambolamena, Andeja, Matavirano, Bemokotragnasy villages; and 8 for FIMITOVE from Veromanga, Ankoakala, Amberavy villages). They received training from the Forest Service Officer of Maintirano (*Chef Cantonnement de Foret*) in July 2010 at Andranovao. At Mandrozo protected area, the fire prevention committee K3M conducted weekly patrols all around the PA including public awareness activities on fire prevention. During a ceremony lead by the DREF, the local authorities and the platform president in November 2010, and TPF provided uniforms (shirt, pants, beret, sandals and whistles) to the local associations in order to distinguish the K3M members during the implementation and public awareness. K3M members reported on each fire activity and try to determine the persons who started the fires and their offense and infraction. In 2011, for example, in addition to the periodic patrols and control of wildfires carried out by the K3M fire prevention committee members, 7 spontaneous control visits were conducted by the association members, K3M fire prevention committee members and technicians of TPF during the fishing season from April to November 2011. These visits were: (a) to give public awareness information regarding the fishing regulations; (b) to resolve any unlawful fishing activities; (c) to apply regulations against infractions or offenses against the *DINA* (bylaws, traditionally social norms or codes of conduct that govern relations within and between communities). Two fishing camps, Ambilanibe and Amberavy, were caught salting fish which is a taboo in the area, and each fishing camp was penalized one Zebu cow and 8 bottles of local spirits (alcohol) as their infraction against the lack of social respect of the traditional taboos. An amount of 400,000 MGA (~$200) was collected by the three associations from fines during the 2011 fishing season. The DREF showed his appreciation of the effort by the committee. In fact, this fire prevention committee worked perfectly and the occurrence of fires had diminished as stated by the Forest Service Officer at Maintirano.

<u>Monitoring of the fishery activities at the Tambohorano site (fish yields, number of fishermen and respect of the management rules)</u>

At Mandrozo, the "*Teabony*" celebration at Bemokotra Agnasy village of the traditional rite for opening fishing season occured usually in April each year. Fishing season is carried out during seven months until November. The "*Teabony*" had almost disappeared because of the migrants moving into the area and their lack of respect to the local traditional rules. This important event gathered more than 400 people this year inlcuding local and regional authorities, representatives of the Gendarmerie (Military Police), members of the three local associations, stakeholders, local people living around Mandrozo Lake and fishermen.

In 2009, a total of 200 fishermen at 8 camps were permitted by the platform management committee to fish at Mandrozo Lake during the 2009 fishing season with 241 tons of fish harvested. In 2010, a total of 208 tons of fish were harvested at Mandrozo Lake from 8 fishing camps with 132 registered fishermen. It was noticed during the fishing season that the fishing regulations were strictly respected compared to the 2009 fishing season, especially the length of nets and width of mesh being used. In 2011, 184 tons of fish were harvested at Mandrozo Lake.by 183 fishermen from 6 fishing camps during the fishing season. Fishermen at Ankonatsy and Antsely camps were victims of the "*Dahalo*" (organized armed robbers from the remote countryside). The attack by the "*Daholo*" forced the fishermen to leave their camps and join the Amberavy camp for security. We noticed that fresh fish product weights had decreased by about 12% compared to the recorded weights in 2010. This decrease may be explained by four assumptions: (a) a majority of the fishermen left the site three months before the end of the fishing season, (b) the fishermen didn't record their catch regularly, (c) lack of equipment such as fiberglass canoes for the fishing camp monitoring and control (one fiberglass canoe for six fishing camps) and weighing scales (one scale per fishing camp of 70 fishermen each), and (d) in 2011, the high water level in the lake made it difficult to catch fish. On average, a fisherman caught

between 6 to 80 kg of fish in one day's work with an average of 30 kg/day fresh weight. Thirty kilograms of fresh fish made about 6 kg of dried fish.

ZAMAMI association managed to establish an organized market system for dry fishery products twice a week at Andapabe (TPF research camp). This local fish market occurred twice a week and allowed a local tax to be collected on fish products. Collectors were not allowed to buy the dry fish products from the fishermen camps, but had to use this market for buying fish. The two other associations (FIMITOVE and FIVOMA) plan to set up their own dry fish markets next year.

Monitoring of the Madagascar Pochards at Bealanana (as flagship for critically endangered species)

Monthly surveys of the critically endangered, and one of the rarest birds in the world, Madagascar Pochard (*Aythya innotata*) was conducted from January-December 2010 at the four lakes of Bemanevika (Matsaborimena, Matsaborimaitso, Maramarantsalegy and Andriakanala). All the four lakes were observed the same day at the same hour in order to avoid any repeated counts on the number of individuals at each lake. The surveys were completed byTPF technicians and local community members.

The number of pochards in the wild recorded at the 4 lakes in Bemanevika ranged from 13 to 33 (17 males and 16 females) in 2010, and between 19 and 29 in 2011. Population monitoring showed that Matsaborimena Lake was the only breeding area for the pochards and this occurred from June and November. This lake is the only one bordered by emergent aquatic vegetation which appears to be suitable nesting habitat of the four lakes. The field team discovered 8 nests with 7-9 eggs per nest in 2010. At the end of the breeding season in November 2010, we observed 5 ducklings, and in 2011, we recorded 10 broods from 11 nesting attempts, with the last brood observed on October 7th, 2011. Of these 10 broods only 3 ducklings survived and were last sighted in December 2011. The analysis of the data recorded since 2007 showed that Madagascar Pochards lay 7-11 eggs per nest (averaged 8.8 eggs/nests) and the incubation period was 25-27 days. Pochards have never been observed in Maramarantsalegy Lake, one of the four lakes in the area, as this lake is the most exposed of the lakes lacking a forest around it like the other three lakes. In addition, this lake is deep and does not have aquatic vegetation which seems to be needed by the pochards for nesting, and consequently, maybe poor in food availability needed by the pochards. We also believe this lake is or has been disturbed by persons attending grazing zebu in the nearby savanna. A master's degree student completed his Masters thesis on "Bio-ecological study and quantitative assessment of the Madagascar Pochard population in Bemanevika". This student was fully supported and financed by The Peregrine Fund and he defended his thesis at the University of Antananarivo during July 2011.

The Madagascar Pochard captive breeding program is a collaborative effort among The Ministry of Environment and Forests (MEF), Wildfowl and Wetlands Trust (WWT), Durrell Wildlife Conservation Trust (DWCT), Asity Madagascar and The Peregrine Fund. Twenty-four nearly hatched eggs were collected in 2009 from three nests. All the eggs hatched in captivity, but one duckling died a few months later and two females a year later. Currently, the captive flock is at 21 adults reaching sexual maturity. Two females from the original captive flock laid 14 eggs and producing 3 ducklings in 2011. A meeting of all collaborative partners with local and regional authorities and a local workshop took place in 2010 for the development of a captive breeding facility and education center. This facility began construction in late 2011 along the main road between Antsohihy and Bealanana.

Ecological monitoring of Madagascar Fish Eagles at Tambohorano

During the Madagascar Fish Eagle breeding season 3 nest surveys were conducted: (1) during the incubation period to record the number of eggs, (2) during the nestling period to verify the number of hatchlings, and (3) during the fledgling period to document nest success.

At Mandrozo NPA, 9 Madagascar Fish Eagle *Haliaeetus vociferoides* territorial pairs were monitored in 2009, and only two pairs were successfully in fledging two young during this breeding season. Most of the failures were because of the human activities and pressures near the nesting areas: four pairs made no nesting attempt, nest trees of two pairs were cut down due to wildfires, and one nestling was taken from the nest. In 2010, 8 nesting territories of Madagascar Fish Eagle were monitored for productivity. One of the pairs, at Mahiarere, was not present during 2010. We believe this was because of disturbance by local people cutting the forest nearby and burning the felled trees for agriculture practice. We recorded 17 fish eagles forming 8 territorial pairs. Four pairs attempted nesting, but only two pairs were successful in producing one fledgling each. This productivity was comparable to the previous year (2009) when18 fish eagles successfully produced two young. In 2011, nine territories of Madagascar Fish Eagles (MFE) were surveyed to determine their productivity. We discovered two new territorial pairs, but no nests were found in their territories. We recorded 17 individuals forming 8 nesting territories and the one pair at Mahiarere had completely disappeared. One individual was localized at Andranovorimananjary, a satellite lake, and four individuals possibly making up one pair at Antsakoamalinika, located near the Mahiarere River but without a nest. Five pairs made nesting attempts and were successful in producing two fledglings.

One sub-adult fish eagle observed at Lokesa Lake (one of the satellite lakes of Mandrozo) was a banded bird from Befotaka Lake of the Manambolomaty Lakes Complex (approximately 170 km south of Mandrozo Lake). This fish eagle was banded as a nestling in 2004. This is the first information we have of a Madagascar Fish Eagles moving over 170 kilometers to find a new territory.

<u>Ecological monitoring of waterbirds and other threatened species at both sites</u>

Using Wetland International waterbird monitoring protocol, monitoring of waterbirds is conducted twice a year (January and July) by counting or estimating all the waterbirds observed during a set time period.

Observing at three sites of Mandrozo NPA and the surrounding wetland areas, the number of species varied between 35 and 38 during the two year monitoring period (2009-2011), and the number of waterbirds was a low of 4,943 in 2009 and a high of 6,347 in 2011. Seven threatened species were recorded: the Madagascar Fish Eagle (*Haliaeetus vociferoides*, CR), the Madagascar Heron (*Ardea humbloti*, EN), the Sakalava Rail (*Amaurornis olivieri*, EN), Madagascar Sacred Ibis (*Threskiornis bernieri*, EN), Madagascar Pond Heron (*Ardeola idae*, EN), Madagascar Little Grebe (*Tachybaptus pelzelnii*, VU) and Lesser Flamingo (*Phoeniconaias minor* (VU).

The same Wetland International waterbird monitoring protocol was also used for the waterbird monitoring at Bemanevika NPA. The project team recorded 9 to 20 waterbird species with 199 to 286 individuals, frm 2009 to 2011. The threatened species varied between 3 and 4: Madagascar Pochard (*Aythya innotata*, CR), Meller's Duck (*Anas melleri*, EN), Malagasy Pond Heron (*Ardeola idea*, EN), and Madagascar Little Grebe (*Tachybaptus pelzenii*, VU). The Malagasy Pond Heron is a migratory endemic species of Madagascar and is absent to the island from April to August when it migrates to mainland Africa. One interesting species, Red-knobbed Coots (*Fulica cristata*) has its northern distribution limit at Mahajanga, but it has now beenobserved at Bemanevika, 280 km further north.

In September 2011, initial surveys for two marshland birds, the Gray Emutail (*Dromaeocercus seebohmi*) and Madagascar Harrier (*Circus macrosceles*) were conducted in 7 marshes around Bemanevika: Analidrevaka, Ankosihosibe, Bedrakidraky, Ankitrobaka, Ambatomavo, Analavakivoho and Marotaolana. Seven individuals of Gray Emutail and 10 of Madagascar Harriers were recorded this year.

<u>Monitoring of threatened bird species for productivity</u>

Two threatened forest bird species were studied in the Bemanevika forest area: the Madagascar Serpent-eagle (*Eutriorchis astur*, EN)) and the Madagascar Red Owl (*Tyto soumagnei*, VU).

The field study and data collection of the Madagascar Red Owl was pursued this year by TPF technicians and not the doctoral student Juliot Ramamonjisoa. Seven individuals of Madagascar Red Owls were recorded in the Bemanevika Forest. One nesting attempt was observed during the three year study period. Six individuals were radio-tagged and followed for behavior and ranging movements. Also, 255 pellets were collected below roosting sites of the radiotagged individuals. These pellets are being analyzed by Juliot with supervision from Steven Goodman of the Vahatra Association to determine prey species taken by the red owls. Juliot is currently analyzing data and writing is doctoral dissertation.

Two adults and three juveniles of Madagascar Serpent-eagles were recorded in the northern part of the Bemanevika forest. One breeding pair and one fledgling were radio-tagged for breeding behavior and ranging movements. During the 2010 breeding season, one nest was discovered with a two-egg clutch, but unfortunately the male was found dead after an extremely strong rainstorm in October 2010. The loss of this male caused in the incubating female to abandon the nest. Another pair of Madagascar Serpent-eagles near Andrakanala Lake and the one radiotagged female in the Matsaborimena Forest were monitored during the 2011 breeding season. One nest was discovered with a two-egg clutch. The two eggs hatched, but unfortunately both nestlings were found dead two weeks after the hatchling date from an unknown cause. Detailed data was collected from nest construction through a part of nestling period and on habitat use by this pair.

At Mandrozo PA, the Sakalava Rail (*Amaurornis olivieri*, EN) is one of the conservation target species. In 2011, two censuses were conducted during July and October and four rails at three territories were observed. The count was lower in 2011 compared to 2010 when 10 individuals at four territories were recorded. We believe this was due to the high water level at Mandrozo Lake where the emergent aquatic plants are suitable habitat for Sakalava Rails was flooded. In collaboration with DBCAM (Development and Biodiversity Conservation Action for Madagascar; an association of researchers financed by Bath University), plan a census program for 2012.

TPF technicians discovered a nesting pair of Bat Hawks (*Macheiramphus alcinus*) at Mandrozo PA in July 2010. This species natural history is poorly known and having crepuscular habits makes it even more difficult to study. A nest with 2 fledglings was located at Andranovaobe (17º 35' 30.9'' S - 44º 03' 27.2'' E). A DEA (master's degree) study by a Malagasy student Stephanie Razakaratrimo on the ecology of the Bat Hawk was started in May 2011. Two pairs were observed during the study focused on habitat use, food habits and behavioral activities. Daily observation were divided in two parts: the first observation was from 4:00-11:00 a.m and the second was from 16:00 to 19:00 p.m. Nocturnal observations occurred during dark moon, half-moon and full moon nights for the two pairs between 18:00 p.m. and 06:30 a.m. A total of 450 pellets were collected during the field season. Preliminary results revealed that the Bat Hawks were eating insects, small birds and bats. Stephanie plans to continue her second field season on this unique species during this coming breeding season and use a camera trap to improve the data collection for the observation at the nest.

Monitoring of Lemur community

Ecological monitoring of lemur communities was conducted at the both Bemanevika NPA at Bealanana and Mandrozo NPA at Tambohorano.

In Bemanevika NPA, the lemur census was conducted during three consecutive days and nights. All lemur species seen or heard along three selected 2 km trails inside the rainforest habitat at Ambongohambana, Matsaboromena-Matsaborimaitso, and Andrakanala were recorded in November and December 2011. Six lemur species were recorded: one diurnal lemur species

Brown Lemur (*Eulemur fulvus*, n=111 individuals), one crepuscular species (Bamboo Lemur *Hapalemur occidentalis*) and five nocturnal species Hairy-Eared Dwarf Lemur (*Allocebus trichotis*, N=2 individuals), Greater Dwarf Lemur (*Cheirogaleus major*, n=12 individuals), Mouse Lemur (*Microcebus rufus*, n=5 individuals), Gray-backed Sportive Lemur (*Lepilemur dorsalis*) and Sambirano Woolly Lemur (*Avahi unicolor*, n=4 individuals) were recorded.

At Mandrozo PA, 8 western forest blocks were surveyed for lemur species during July, before the breeding season, and in November during which infants could be observed. The first monitoring of diurnal lemur species was conducted in October 2009. For Brown Lemur *Eulemur rufus*, seven groups were recorded made up of 78 adults and 12 young and 11 groups of Decken's Sifaka *Propithecus deckeni* composed of 42 adults and 5 young. While in 2011, a total of 177 individuals of three lemur species were recorded: Decken's Sifaka, Brown Lemur and unidentified Mouse Lemur (*Microcebus* sp.). Of these 177 lemurs, 154 were adults and 23 were infants. During the survey, we carried out public awareness and removed all traditional traps that were encountered.

Monitoring the permanent plots in the forest for vegetation and tree species at Bealanana and Tambohorano

At Bemanevika, a team carried out a fieldwork focusing on the observation of the status of the forest and savanna in 2010. Rapid evaluation of the flora and vegetation characteristics and the human-induced threats were conducted, too. Based on the collected information and data, a document on botanical monitoring was developed in 2011. The focus of this document was based on ecological aspects of the flora and to define parameters that will serve as a tool in ecological monitoring of the Bemanevika PA. This document established flagship species and bio-indicators and to implement activities for an ecological monitoring plan. This document includes compilation of existing data on flora, and it also suggested to collect data on specific fauna (lemurs, birds and chameleons) which have been selected as flagship species and indicators in assessing the health of ecosystems, to establish and develop the protocol to collect data on these species and habitats prioritized for conservation and to establish strategies in implementing the ecological monitoring. This document has concerns on deforestation, burned areas, the monitoring of selective forest trees for logging, the monitoring of the habitat and vegetation structure, the monitoring of the forest habitat health, forest tree and floristic measurement data, and the monitoring of the ecosystem through abundance of invasive plant species. Ecological indicators were identified and grouped as conservation targets as: (1) habitat types of forests, lake, and marshes, (2) vegetation structure of the habitat by canopy cover and height, (3) floristic composition and richness of each habitat, species abundance, frequency, rare species, threatened species and invasive species, (4) conservation target species for regeneration rates, area of occupancy and distribution, phenological cycles, density, demographic structure (saplings, young trees, mature and reproductive trees) and number of subpopulations, (5) human pressure from forest removal, fire and selective tree logging, and (6) six plants species proposed as species to focus on for monitoring based on their phytogeographic and floristic characteristics for the area and owing to their natural resource usage by the local communities too.

Regarding the monitoring of forest resources at Mandrozo, a draft of a memorandum of understanding (MOU) between The Peregrine Fund and the Melaky Region Forest Department (DREF) was discussed and created. This MOU focused on the evaluation of forest resources, especially of the tree species utilized by local people for construction and fire wood, and establishment of a permanent plot for monitoring trees at Mandrozo. The proposed attribution of two entities is mentioned in the terms of reference. The Peregrine Fund will be supporting financially this project and the Forest Regional Department will develop a survey method, assign the responsibility to The Peregrine Fund's technicians and to ensure in the implementation. Two environmental technicians from the Forest Regional Department will lead the monitoring activities. Until now, we are waiting for feedback from DREF.

Reforestation and forest restoration

At Mandrozo NPA, 49,892 native forest trees (five species: *Commiphora guillaumini*, *Albizzia androyensis*, *Colvillea racemosa*, *Acacia mangeum* and *Stereospermum euphoroides*) and 6,400 orange trees as an alternative source of income were planted by the local communities during two years of the project. Lead by TPF's technicians, community nurseries were prepared during October, while the sapling trees were planted in February during the rainy season. Seeds were bought from the National Forest Seed Bank in Antananarivo (*Silo National des Graines Forestières* (SNGF)). The three local associations ZAMAMI, FIVOMA and FIMITOVE and Women's Association were responsible for watering the nursery and seedling beds. During the year, especially during the dry season, from May to October, all local stakeholders (the association members, local authorities, women's association; K3M wildfire prevention committees, students from primary and secondary schools) monitor and cared for the planted sapling trees. The association members, led by the K3M conducted inspections and controls around the Mandrozo NAP during the dry season from April to mid-November. The main treats to the young trees were wildfires and Zebu cattle trampling and eating the young trees. All reforestation areas were marked with display panels indicating the Association, the tree species and the grant sources. In the reforestation plan for 2012/13 season, the local associations with the support of TPF proposed to extend the forest restoration program and area. In addition, Tambohorano and Veromanga rural communes began developing coconut and orange plantations. Their objective is to plant 2,000 coconut and 3,000 orange trees every year. Veromanga used to be known throughout Madagascar as having the best tasting oranges in the country until their orange grooves were removed several decades ago.

At Bemanevika NPA, the preliminary reforestation plan was elaborated on during 2010 in collaboration with the local forest officer (*Chef Cantonnement de l'Environnement et des Forêts*). This reforestation program aims at restoring degraded forested areas with three native tree species (Tafonomana, Telotritry and Valotra) and producing alternative trees for human use such as Eucalyptus (two species *Eucalyptus grandis* and *E. citriodora*). Ten reforestation areas were identified for the ten villages around the protected area. Tree nurseries were established at five villages around the protected area: FIMAKA association had Anolakely and Amberivery and FBM association had Bemanevika, Ambodimadiro, and Ambodivavandrika. Over 1,175 local villagers participated in planting 4,500 native trees and 3,300 Eucalyptus in approximately 7 hectares. The Eucalyptus trees were planted around villages for future firewood and house construction use. These reforestation and plantation activities expect to reduce the forest tree cutting within the protected area.

<u>Monitoring of forest resources used by local people</u>

At Mandrozo Lake, a fisherman impact survey was completed during the fishing season focusing on the quantity of trees used by fishermen for camp huts and firewood for drying fish. At the 8 fishermen camps, counts recorded up to 20 huts with an average of 11 huts per camp. Each hut was built with 157 pieces of wood from 38 tree species and palm fronds for roofs and walls were used too. In addition, there were 7 fish drying racks built per camp. Fishermen used 14 pieces of wood from 36 tree species for each fish drying rack. Fishermen collected the wood pieces from a distance of 110-2,100 meters from the lake shore. For firewood, fishermen use 12 tree species from the surrounding forest blocks.

<u>Ecotourism planning and implementation</u>

Tourism operators are becoming more interested in the Bemanevika area, and for the site promotion the project has contacted 3 national and 5 international tour operators. Bemanevika leaflets were presented by a Malagasy tourist guide at the annual forum of tourism (Indaba Travel Fair) in South Africa. To date, 13 tourist groups have visited Bemanevika PA, and the local communities have received more than $2,500. For the infrastructure development at Bealanana, 4 tent shelters and one public toilet were built at the Bemanevika community for camping.

The Ecotourism Development Plan of Bemanevika has been development by a DEA (Masters) degree Malagasy student Antsa Yannick Ramiandrasoa from the Geography Department at the University of Antananarivo. Antsa spent two field seasons conducting surveys and collect basic information in order to assist the preparation of the ecotourism plan. She investigated Bemanevika forest area and visited the local and regional authorities (mayors, district and regional department heads from DREF, and a representative of the regional tourism office), and 8 villages around the NPA by consulting approximately 20 persons per village. Basic information from these communities is now being analyzed to write her thesis and a document on the ecotourism potential for biodiversity, landscape, and cultural interests based on 47 social and economic categories for tourist interests in the area like the 14 waterfalls 14, one sacred lakes, and 8 caves, and cultural attractions (historical rites, traditional sports, and songs).

Communication, environmental education and public awareness

An awareness workshop was held in Bealanana concerning the conservation importance of the Madagascar Pochard in the wild and the role of the captive breeding program, as The Peregrine Fund is working closely with Durrell Wildlife Conservation Trust (DWCT) on the captive breeding program. This workshop brought together all stakeholders from the regional representatives of the Sofia Region, Ministry of Forestry, DREF, Bealanana District, the 3 local mayors, local communities, the two local associations, the local women's associations, and local economic operators.

For Bemanevika NPA, the five-year communication plan document was prepared in 2010. Five information panels were installed at the main access points to the Bemanevika Protected Area. These panels described and showed the boundaries of the protected area. In collaboration with Asity Madagascar, a CEPA (Communication, Education and Public Awareness) officer was recruited in 2011 and focused on the pochard captive breeding and conservation program at the local level in Bemanevika and Bealanana, and at the regional level in Antsohihy. For the local education, TPF continues providing support to local schools by providing education material and teaching tools to the seven local schools (e.g. blackboards, rulers, and protractors).

At Mandrozo, information panels were installed at each tree plantation site and at the main access to the new protected area. TPF and the three local associations of the NPA participated in the regional fair and presented posters and panels describing Mandrozo NPA during October 2010. Concerning environmental education and public awareness campaign at Mandrozo, The Peregrine Fund has developed the environmental education work plan for 2011 involving the directors of the local primary and secondary schools around the Mandrozo PA and the *Zone d'Administration Pedagogique* (teaching) (ZAP) or Pedagogic Administration Zonal Responsible. TPF supported one teacher's salary at the Andeja primary school and provided some office supplies to the three rural communes, three associations, and Gendarmerie of Tambohorano. Environmental Days events were celebrated each year during this contract, like International Wetland Day (February 2nd) and International Environmental Day (June 5th). All activities during the events were focused on public awareness for biodiversity conservation. For International Wetland Day in 2010 and 2011 additional speeches were given by the local and regional authorities, local elders, association leaders and TPF staff in front of 600 local villagers. There were also various other activities involving local stakeholders during these two international day events, like the Tambohorano primary and secondary schools used butterfly masks as recommended by Wetland International as public animation activities.

The three local associations and local students carried out reforestation campaigns, too.
On June 5th, The Peregrine Fund organized an excursion to the Tambohorano-Mandrozo New Protected Area for Andranovao secondary schools to understand and observe the Mandrozo biodiversity and enjoy the natural wetlands. The Vintsy Club (a green association for local students) was created, and a visit to the Bemaraha National Park by merited local students with their teachers was organized. In addition, TPF organized an inter-communal soccer tournament called '*Jeu de Mandrozo*' (Mandrozo Games). Both International Days were animated by various

plays such as the "*radio-crochet*" or "radio talent" debate and conference which focused on wetlands and the Ramsar Convention, on the biodiversity conservation and protected area, the "*Vakodrazana*" (traditional songs and dances) and environmental films. In addition, all events were broadcasted to local and national radio and television.

Improving the quality of fishery products (fishermen incomes increase) at Tambohorano

Although, a meeting with fishermen to discuss how to improve their fishery products took place on June 17th, 2010 at Andapabe (TPF camp). Most locals were occupied with their agriculture activities during this period and only 50 fishermen attended the meeting. Their discussion focused on improving the fish drying techniques. All participants believed that their fish products from Mandrozo Lake were being sold at a lower price because of their lesser quality. They discussed options for new techniques in order to improve the quality of their fishery products. One option was to have access to an improved fish drying oven, and to use fiberglass canoes as alternative to dugout canoes, which are constructed from local native mature trees.

Based on this meeting, a new and large public fish drying oven ('fumoir') was constructed at Antsondrondava camp in March 2011. This new oven was more energy efficient, less firewood needed to run it, making it more sustainable. This new oven cost approximately $4,500 to build with a capacity of 120 kg of fresh fish per use and was provided by TPF. We expect to diminish the quantity of firewood cut and used from the forest. A total of 38 fishermen from two camps (Antsondrodava and Antranokoaky) were the beneficiaries of this new oven. To use this infrastructure, each fisherman needs to pay annually 50,000 MGA ($25) during five years. The fishermen reported this new fish drying oven provided a better quality fish product for market and they acknowledged their gratitude to The Peregrine Fund and other donors during public meetings and presentation in the communities. ZAMAMI association has collected 380,000 MGA (~$190) from the utilization fees of this fish drying oven from the fishermen in 2011. Another important contribution to sustain the natural forest at this site is decreasing the use of dugout canoes. A dugout canoe normally lasts for two or maybe three years for a fisherman. The Peregrine Fund provided 12 fiberglass canoes (manufactured in the capital city of Antananarivo) to the three local associations during April 2011 as a way reduce the impact on mature trees being harvested for dugout canoes. These fiberglass canoes have benefitted 24 fishermen, i.e. 2 persons per canoe. To use of these canoes, the fishermen of the two associations ZAMAMI and FIVOMA contribute also $25 per year per fisherman. The associations have received nearly 400,000 MGA ($200) from the fisherman fees for using these fiberglass canoes in 2011.

In addition, ten (10) sewing machines were given by the TPF to the ALNOOR women's association at Tambohorano as a source for generating income in the community. Currently, the ALNOOR association has 47 women members and has generated 245,000 MGA ($122) in its account from the sewing products they have produced. This year, the ALNOOR association developed a partnership with the primary private and secondary schools at Tambohorano for sewing their school uniforms. With these community projects, TPF expects to contribute to the local economy by improving the local income and family welfare.

Community apiary project at Bemanevika NPA

The Peregrine Fund's Madagascar Project promoted beekeeping as an alternative economic activity for locals surrounding the Bemanevika PA. The traditional way to gather honey was very destructive to native trees, basically cutting the tree down to access the hive for honey and the forest and at times led to wildfires on the edge of the forest fragments. The use of modern beekeeeping techniques was proposed instead of traditional way of collecting honey.

An apiary (beekeeping) development and management plan was developed in 2010 for the local associations. Afterwards, scouting trips by skilled local beekeepers in Andebodatsaka and Befandriana-nord District were conducted. In June 2010, we created two beekeeper groups (one

with FIMAKA association and other one with FBM) composed of 7 members each from the two local communities around Bemanevika protected area.

A series of three field courses on beekeeping training and practices were given to the local communities. Two phases of training were provided during November and December 2010 to the local communities on the transformation of the traditional way to the modern apiculture system at Bemanevika village. TPF purchased and provided 15 beehives and 15 sets of beekeeping equipment (such as bee smoker, hive tool, manipulate frame, cappings scratcher, bottom board beetle trap, veil and clothing) to the local trained beekeepers. Twenty persons attended the trainings with practices on beekeeping from the two local associations (FIMAKA and FBM). Two trainers from "*Centre National de Formation Professionnelle des Personnes en Situation de Handicap*" were hired to provide the three training sessions. After the first session, 3 out of the 4 demonstration practices were successful in collecting a native bee hive. The third training session was done in April 2011. This session reinforced two previous sessions which focused also on honey collecting, accounting and management, the environment and to identify the best materials for collecting honey. Out of 15 beehive boxes provided to the novice beekeepers, 9 were successfully in establishing bee colonies.

Other activities on Community development

In order to reduce the quantity of firewood collected from the forest for cooking, TPF promoted a fireclay stove to local communities around the protected areas. As a start, TPF provided 8 of these stoves to the local communities at Bemanevika NPA. We are assessing feedback from the local communities for future use of these stoves for continuing this activity.

From the collaboration between TPF and other regional development organizations (such as Aga-Khan, and Rural Development Support Program PSDR), a project on agriculture (rice cultivation) technique improvement was undertaken in 2010 with several local communities. Six villages around Bemanevika NPA (Beandrarezona, Amberivery, Ambodimadiro, Manirenja-Vao, Ambodivavandrika and Antananivo-Haut) were targeted. Training and monitoring are being handled by technicians from the Aga-Khan organization. Also, we are attempting to increase the vegetable production and supplementing local income at Bemanevika, whereTPF purchased and provided tools for gardening to the local woman's association of Antananivo-Haut for their vegetable gardens during September 2010. Equipment provided were watering cans, shovels, spades and selected vegetable seeds.

Concerning the Public Health campaign on pest control (flea infestations) was carried out at 10 villages (2,451 houses) around the PA during the dry season, August and September 2011. A local nurse trained the local communities on the use of a pesticide to combat the flea infestations. Pesticide products (10 liters of Nuvan solution) and 12 spraying canisters to eliminate the fleas were provided by TPF.

Study of Sakalava traditional culture related on natural resources management in Mandrozo PA

As local traditions play important role in the natural resource management and the biodiversity conservation in the area, The Peregrine Fund undertook the study of the traditional customs of the local people and their relationship to local biodiversity conservation. TPF collaborated with the History Department at Antananarivo University and supported Harinosy, a student study from the Department of Anthropology at the University of Antananarivo, for his Bachelors degree.

Since the natural resources in Mandrozo PA are managed by three local associations based on tradition ways, the Sakalava ethnic (the autoctone group) respects their traditional cultures and taboos, but some of these traditions started to fade away because of the attitude from the migratory Malagasy population. This circumstance incited TPF to study the Sakalava traditional cultures in order to validate their natural resource sustainability. The goals are (a) to make a list and describe all traditional cultures related to natural resources management; (b) to identify

common law holders and attributions; and (c) to determine the mechanism of the transfer of ways and customs from generation to generation. The study began May 2011 at Mandrozo PA and field work was carried out in two periods: the first stage in April 2011 for one month and the second period from September to October 2011. A total of 86 persons composed of local authorities, members of the three associations, elders, the Tompon-drano (waterkeeper), fishermen, the three communes, villages and fishing camps were interviewed by Harinosy. He is currently analyzing data and preparing the final report while writing his thesis.

Were any components unrealized? If so, how has this affected the overall impact of the project?

Obtaining the definitive decree for the PA at both sites, Bealanana and Tambohorano, was not possible during this CEPF contract period due to the unstable national political situation in the Madagascar government. Instead, we negotiated with the DREF to prepare and establish a simpler agreement at the regional level in order to insure the protection of the site (future protected areas) during the interim. Unfortunately, the DREF could not decide and at the national level, the Department of Forest is working on the process of delivery of the management delegation to the NPA promoters (TPF for the two sites Mandrozo and Bemanevika) during temporary protection until the decree of definitive status will be possible.

Additionally, the new PA law called *'Code des Aires Protégées*' has not been promulgated yet. This would be one more reason the Forest Department cannot decree any NPA sites at the moment.

The acquisition of the judicial status of the land (land tenure document) in the protected area was not achieved during this CEPF contract period. According to the Domains Service, this certificate is delivered only for lands which have an official title, and not for the protected areas where the land is classified as state domain. The process of the definitive creation of a new protected area is still vague, because there is no guideline or manual which specifies the details of the process for judicial status acquisition from the Department of Protected Area System (DSAP). Nevertheless, the Service of Topography has delivered a protected area sketch plan following the demand by the platform of local associations to the Service of Domains. On site NAP limits will be checked by the agents of the Service of Domains, and the corresponding official map area has not been achieved because of this postponement by the agents of the Service of Domains and Topography.

During 2009, the first year of the CEPF contract, some Madagascar Fish Eagle nestlings (a critical endangered species) were taken as pets by local villagers from two nests at Antevamena and Mandrozo I in the Tambohorano region. Nestling poaching remains a major threat to the fish eagles in this region. In 2010, TPF reinforced the local public awareness regarding the conservation status of fish eagles and we have achieved an attitude in the locals where no more human actions are allowed of Madagascar Fish Eagles and their nesting sites.

Please describe and submit (electronically if possible) any tools, products, or methodologies that resulted from this project or contributed to the results.

NPA Management Plan :

1) Plan d'Amenagement et de Gestion (PAG) de la Nouvelle Aire Protegee de Bemanevika
2) Plan d'Amenagement et de Gestion (PAG) de la Nouvelle Aire Protegee de Mandrozo

NPA Environment and Social Safeguard Plan:

1) Etude d'Impact Environnemental et Social de la future Nouvelle Aire Protégée de Mandrozo, District de Maintirano
2) Etude d'Impact Environnemental et Social de la future Nouvelle Aire Protégée de Bemanevika, District de Bealanana, Région Sofia

NPA Business Plan

1) Plan d'affaire de la Nouvelle Aire Protégée Mandrozo. Système des Aires Protégées de Madagascar
2) Business plan de la Nouvelle Aire Protégée Bemanevika. Système des Aires Protégées de Madagascar

Community apiary, Bemanevika NPA:

1) Plan d'action de la mise en oeuvre du projet de développement de l'apiculture dans le cadre de la mise en place de la nouvelle aire protégée de Bemanevika Bealanana 2)
2) Plan de développement de la filière apiculture de la zone de Bemanevika 3)
3) Sous projet: Apiculture Bemanevika », Beneficiaire: "Groupement des apiculteurs: Membres de PAPs de la NAP de Bemanevika » Bealanana

Botanical monitoring:

1) Plan de développement du suivi écologique botanique de Bemanevika

Cahiers de charge des associations

1) Bokin'Andraikitra (Cahier de Charges) FI.VO.MA (FIkambanana VOnjisoa MAndrozo)
2) Bokin'Andraikitra (Cahier de Charges) FI.MI.TO.VE (FIkambanana MIaro TOntolo iainana VEromanga)
3) Bokin'Andraikitra (Cahier de Charges) ZA.MA.MI (ZAnan-tany MAndrozo MItambatra)
4) Bokin'Andraikitra (Cahier de Charges) FBM (Fikambanana Bemanevika Miray), Bealanana
5) Bokin'Andraikitra (Cahier de Charges) FIMAKA (Fikambanana Miaro ny Ala-Ketsany Amberivery), Bealanana

Theses

1) Rakotoson Michel (2010). '*Contribution géographique à l'étude des problèmes de dégradation du Complexe forêt-lac-marécage de Bemanevika (Région Sofia) et les solutions possibles'. Mémoire de Maîtrise. Département de Géographie, Faculté des Lettres et Sciences Humaines. Université de Toamasina.* (Bachelor degree thesis)
2) The Seing Sam (2011). '*Etude bio-écologique et évaluation quantitative de la population de Fuligule de Madagascar Aythya innotata (Salvadori, 1894) dans le Complexe lacustre de Bemanevika à Bealanana'. Mémoire de DEA. Département de Biologie Animale, Faculté des Sciences. Université d'Antananarivo*. (Masters degree thesis).

Lessons Learned

Describe any lessons learned during the design and implementation of the project, as well as any related to organizational development and capacity building. Consider lessons that would inform projects designed or implemented by your organization or others, as well as lessons that might be considered by the global conservation community.

Project Design Process: (aspects of the project design that contributed to its success/shortcomings)

Because of the restricted accessibility to these extremely remote sites, most of our activities and field work was limited to and conducted during the dry season from June to November at both sites when access and logistical could be provided and supported. Accessing these sites also led to higher travel costs due to the increasing fuel prices which affected annual budgets that were hard to estimate from year-to-year.

All stakeholders at the two sites were involved through the numerous visits, meetings, workshops, presentations and dissemination of information. Local authorities, *Lonaka* (community elders) and associations attended all local meetings and workshops. Their opinions were heard and taken for their interest and concerns. The regional technical services in Maintirano and Bealanana were involved through the many meetings, workshops and the on-site visits they made and the local community awareness was elevated when the regional authorities participated and interacted during the local and regional events at each site.

Decisions were always taken consensually involving representatives of all stakeholders during meetings, awareness events, workshops and local consultation (e.g. contents of and the installation area for the information panels, elaboration of development plan of mitigation measures for beekeeping and reforestation, also for the development of MOU, the "Cahier de Charge" (terms of reference), charter of responsibility, and *DINA* (local traditional rules and by-laws).

The affects from the national political crisis was not manageable and out of our control. This governmental situation has stagnated nearly all procedures and activities at the national ministry levels. Currently, we have been working and emphasizing intervention and involvement at the local and regional levels at both Bealanana and Tambohorano.

Project Implementation: (aspects of the project execution that contributed to its success/shortcomings)

Implementation activities were described during preparation of documents, and every stakeholder was informed of their responsibilities. Most of the time, we worked jointly with local people and authorities during all activities, (e.g. reforestation, participatory monitoring, beekeeping development, and wildfire prevention awareness). Meeting reports were provided, and copies of the meetings minutes and reports were shared with regional and local authorities and regional technical departmental services. Some examples concern the COE committee validation of association's management reports and work plan, the captive breeding of Madagascar Pochards since July 2010 with TPF counterparts. This is the same for the implementation of development plan regarding to the mitigation measures such as the beekeeping and reforestation, assessment of the *Transfer de Gestion*, Cahier de Charge, charter of responsibility, and DINA (rules and by-laws).

Most of the association members were active participates during implementation of activities, especially when there is some motivation (e.g. per diem). This would support their participation and benefit them in contributing to their income. The nonparticipation of association members might lead to warnings and punishments at Mandrozo PA. In the Terms of Reference of the COE members is to supervise the Management Platform by visiting the field site 3 times a year. From

their visits the COE members give advice and support for validating the Management Platform work plan and report. Also, the Environment and Forest Officer and the Fishery Service Officer are actually members of the COE.

As regional representatives of the Ministry Departments, the Environment and Forest and the Fishery Technical Service they have the right to inspect, to control and run public awareness, and provide law enforcement duties.

For Tambohorano, systematic controls were made and defined before, during and after the fishing season by the local associations around the lake and the surrounding forests in order to reduce tree cutting, wildfires and overfishing through the use of illegal equipment. One of the associations' goals is to connect two nearby forest blocks through a forest restoration program. Native seeds were collected from the important forest tree species, especially "*Hazomalany*". For other native tree species, seeds were bought from *Silo National des Graines Forestières* (SNGF), and used for the community nurseries.

We tried when possible to provide benefits and mitigation activities to every village around the PA.

1) For examples, 20 persons were selected from all the villages around Bemanevika protected to attend the training sessions on beekeeping in November-December 2010. Six villages were objected to the flea eradication campaign around Bemanevika NPA. 38 fishermen were beneficiaries of the new fish drying oven system at Mandrozo PA. Tree nurseries were built and established at four villages around Bemanevika PA and three villages around Mandrozo PA.
2) For Mandrozo site, transplantation of nursery tree seedlings was completed, and fishery activities at Mandrozo Lake were monitored. There were also a series of meeting and workshops for the local association members discussing how to improve the quality of the fisheries products and reduce the quantity of trees used for firewood for fish drying.
3) For Mandrozo Lake, plans were discussed with the local fishermen (members of the local associations) to become more professional and independent from the rich persons and collectors by providing them with fishing supplies like fiberglass canoes (to limit the mature tree cutting) and fishing line for construction of fishing nets.
4) At Mandrozo Lake, most local fishermen rented fishing equipment and depend on financial support from fish collectors. The Project purchased and provided 12 fiberglass canoes to help 24 fishermen so they are not dependent on renting dugout canoes from the richer fish collectors. In addition, fish nets will be provided to fishermen. The average catch is 30kg/day in fresh weight. Fishermen sell mainly dry fish to local collectors at a price of 4,000-5,000 Malagasy Ariary per kg, which is about $2.5/kg of dry fish (30 kg fresh weight provided about 6 kg dry weight).
5) The reproductive success of the Madagascar Pochard remains extremely low in the wild. This made TPF to have a permanent presence of a TPF technician at Matsaborimena Lake (the only breeding site of this species in the world) as an important aspect of preventing human-induced pressure on the pochards. In addition, collaboration with other institutions (WWT and DWCT) has led to a captive breeding program for the recovery effort of this species.

Other lessons learned relevant to conservation community:

Setting up a local management system of natural resources has enhanced the cultural value of the Sakalava ethnic group in Mandrozo Lake area at the Tambohorano site. The cultural rite "*Teabony*" (the traditional opening of the fishing season) which had been absent for many decades took place for the first time in 2009 because the local people and communities took the initiative to be in charge of managing their natural resources at Mandrozo Lake. The *Teabony*

has become a new annual event in the area, and has been accepted by all local and regional authorities.

The management of the natural resources helped develop the collaborative relationship among the three rural communes: Tambohorano, Veromanga and Andranovao. There is no more conflict about the benefits received from fishery products among the three communes.

In the past, the immigration of other Malagasys and their activities into wetlands sites with high resource interest (fishery yields) has become a persistent problem for the management and protection of wetlands and resources in Madagascar. The *GELOSE* transfer and DINA's traditional laws have empowered the local associations to control their wetland resources from influences and overuses by immigrants.

The PAG is usually elaborated in French, but having a copy of the PAG in Malagasy has motivated and facilitated its implementation by local associations at both sites, Mandrozo and Bemanevika. The associations and platforms of these associations were able to implement the PAG which made the local people feel more responsible about PA management.

For each PA site, we are always working in close collaboration with the Environment and Forestry Regional officers to make the tasks more efficient, and involving the regional and local authorities brings more conviction to the local communities and shows they are interested in this process.

A continuous monitoring effort was necessary and fundamental to have good baseline information of fishermen impact on Madagascar Fish Eagles at Mandrozo (in Tambohorano), and population status of Madagascar Pochards at Bemanevika (in Bealanana).

The meetings with local communities and the setup of the panels are an opportunity for communication and public awareness prior to the elaboration and implementation of the plan at both sites.

The public awareness campaign and the dispatching of equipment for local fire committees enhanced their responsibility and effect on reduction of wildfires around both NPA (e.g. at Bemanevika in 2009, 1,300 ha burned and in 2010, 300 ha burned, a 30.8% decrease).

The generated income from ecotourism activities has motivated the local communities in the conservation activities. We were able to discuss and develop at Bemanevika PA with the Federation of FIMAKA and FBM some infrastructure developments and micro-projects: (1) buiding a school house at Bemanevika, (2) supporting agriculture improvements; (3) supporting activities run by the association with regards to the PA management, such as meetings and patrols for fire; and (4) any social supports and so on when needed.

The participatory monitoring of Madagascar Pochards by TPF technicians and locals for collecting baseline data during the CEPF two year contract period has helped in the local capacity building on the importance of the species and the data collected will serve to establish strategies for conservation of this species.

At Tambohorano, sharing tasks with locals helps to increase the conservation motivation and involvement of the local community. TPF technicians and the Chef Cantonnement supervised the tree nursery activities, and most of the nursery tasks were shared with fishermen, womens' associations and local students at Bemokotranasy (FIVOMA), and the three association's members.

Voluntary participation of the association members were becoming more prevalent at NAP Mandrozo, such as with the K3M committee.

Primary and secondary schools, and women associations are know involved in the NPA process.

The closure of the local primary school at Andeja village was avoided as TPF took charge of the teacher's salary during the CEPF project period.

As the proposed management structure (manager) of the NPAs (the management platform of the local association for Mandrozo, and the local associations as local manager for Bemanevika) are not quite ready to take on their management responsibilities, TPF has taken on these roles of the main manager while strengthening the two local communities abilities.

Providing nondestructive techniques to local people, such as the fiberglass canoes and fish drying house, plays an important role as an alternative to the intensive use of the natural resources, and reduces pressure on forests resources and biodiversity.

Additional Funding

Provide details of any additional funding that supported this project and any funding secured for the project, organization, or the region, as a result of the CEPF investment in this project.

Donor	Type of Funding*	Amount	Notes
Little Family Foundation	grant	3,100	A
Liz Claiborne and Art Ortenberg Foundation	grant	100,000	A
CI-Madagascar	alternative mitigation grant	61,150	A
FAPBM	alternative mitigation grant	50,112	A
MacArthur Foundation	grant	60,000	A
V Howe	personal donation	2,300	A
WWT	collaborative grant	3,151	A

Additional funding should be reported using the following categories:

A *Project co-financing (Other donors or your organization contribute to the direct costs of this project)*

B *Grantee and Partner leveraging (Other donors contribute to your organization or a partner organization as a direct result of successes with this CEPF funded project.)*

C *Regional/Portfolio leveraging (Other donors make large investments in a region because of CEPF investment or successes related to this project.)*

Sustainability/Replicability

Summarize the success or challenge in achieving planned sustainability or replicability of project components or results.

Summarize any unplanned sustainability or replicability achieved.

Safeguard Policy Assessment

Provide a summary of the implementation of any required action toward the environmental and social safeguard policies within the project.

Additional Comments/Recommendations

Information Sharing and CEPF Policy

CEPF is committed to transparent operations and to helping civil society groups share experiences, lessons learned, and results. Final project completion reports are made available on our Web site, www.cepf.net, and publicized in our newsletter and other communications.

Please include your full contact details below:

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*****If your grant has an end date other than JUNE 30, please complete the tables on the following pages*****

Performance Tracking Report Addendum

CEPF Global Targets

(Enter Grant Term)

Provide a numerical amount and brief description of the results achieved by your grant.
Please respond to only those questions that are relevant to your project.

Project Results	Is this question relevant?	If yes, provide your numerical response for results achieved during the annual period.	Provide your numerical response for project from inception of CEPF support to date.	Describe the principal results achieved from July 1, 2007 to June 30, 2008. (Attach annexes if necessary)
1. Did your project strengthen management of a protected area guided by a sustainable management plan? Please indicate number of hectares improved.	Yes	52,186 ha		Please also include name of the protected area(s). If more than one, please include the number of hectares strengthened for each one. 1) TAMBOHORANO/MANDROZO LAKE – 15,145 ha 2) BEALANANA/BEMANEVIKA – 32,130 ha
2. How many hectares of new and/or expanded protected areas did your project help establish through a legal declaration or community agreement?	Yes	47,275 ha		Please also include name of the protected area. If more than one, please include the number of hectares strengthened for each one. Have temporary protected status and are awaiting for Malagasy government to decree them as permanent protected status 1) TAMBOHORANO/MANDROZO LAKE – 15,145 ha 2) BEALANANA/BEMANEVIKA – 32,130 ha
3. Did your project strengthen biodiversity conservation and/or natural resources management inside a key biodiversity area identified in the CEPF ecosystem profile? If so, please indicate how many hectares.	Yes	47,275		
4. Did your project effectively introduce or strengthen biodiversity conservation in management practices outside protected areas? If so, please indicate how many hectares.	Yes	Unknown at this moment		
5. If your project promotes the sustainable use of natural resources, how many local communities accrued tangible socioeconomic benefits? Please complete Table 1below.	Yes			

If you answered yes to question 5, please complete the following table

Table 1. Socioeconomic Benefits to Target Communities

Please complete this table if your project provided concrete socioeconomic benefits to local communities. List the name of each community in column one. In the subsequent columns under Community Characteristics and Nature of Socioeconomic Benefit, place an X in all relevant boxes. In the bottom row, provide the totals of the Xs for each column.

Name of Community	Community Characteristics								Nature of Socioeconomic Benefit											
									Increased Income due to:											
	Small landowners	Subsistence economy	Indigenous/ ethnic peoples	Pastoralists/nomadic peoples	Recent migrants	Urban communities	Communities falling below the poverty rate	Other	Adoption of sustainable natural resources management practices	Ecotourism revenues	Park management activities	Payment for environmental services	Increased food security due to the adoption of sustainable fishing, hunting, or agricultural practices	More secure access to water resources	Improved tenure in land or other natural resource due to titling, reduction of colonization, etc.	Reduced risk of natural disasters (fires, landslides, flooding, etc)	More secure sources of energy	Increased access to public services, such as education, health, or credit	Improved use of traditional knowledge for environmental management	More participatory decision-making due to strengthened civil society and governance.	Other
Bealanana/Bemanevika PA																				
Anolakely		x	x				x						x			x		x		x	
Amberivery		x	x				x			x		x	x			x		x		x	
Bemanevika,		x	x				x			x			x			x		x		x	
Ambodimadiro		x	x				x						x			x		x		x	
Ambodivavandrika		x	x				x						x			x		x		x	
Beandrarezona,		x	x				x			x			x			x		x		x	
Manirenja-Vao,		x	x				x						x			x		x		x	
Antananivo-Haut		x	x				x						x			x		x		x	
Tambohoran/Mandrozo PA																					
Amberavy		x	x				x		x				x			x			x	x	
Ankoakala		x	x				x		x				x			x			x	x	
Veromanga		x	x				x		x				x			x			x	x	
Bemokotragnasy		x	x				x		x				x			x			x	x	
Matavirano		x	x				x		x				x			x			x	x	
Andeja		x	x				x		x				x			x			x	x	
Ambolamena		x	x				x		x				x			x			x	x	

Antranokoaky		x	x				x		x				x			x			x	x	
Andapabe		x	x				x		x				x			x			x	x	
Ampiliravao		x	x				x		x				x			x			x	x	
Total		**18**	**18**				**18**		**10**	**3**		**1**	**18**			**18**		**8**	**10**	**18**	
If you marked "Other", please provide detail on the nature of the Community Characteristic and Socioeconomic Benefit:																					