CEPF FINAL PROJECT COMPLETION REPORT

I. BASIC DATA

Organization Legal Name: Philippine Eagle Conservation Program Foundation, Inc

Project Title (as stated in the grant agreement): *Project Mamboogook: Research and Conservation of Philippine Eagles in Central and Eastern Mindanao*

Implementation Partners for this Project: The Peregrine Fund, National Aviary, Department of Environment and Natural Resources (DENR) Regions IV, X, XI, and XIII; Protected Areas and Wildlife Bureau, DENR; National Power Corporation; Yakap Kalikasan Para sa Kaunlaran ng Pilipinas; University of the Philippines in Mindanao (UP Mindanao); University of Massachusetts at Amherst (UMA); Conservation International Philippines (CI Philippines); Local Government Units (LGU) of Mati City, Bislig City, Governor Generoso, Tarragona, Pantukan, Caraga, Manay, General Nakar, Norzagaray; Dona Remedios Trinidad; Sumilao; Protected Area Management Board-Mt. Kitanglad Natural Park; Jim and Joyce Grier of North Dakota State University (NDSU); Department of Education Region XI.

Project Dates (as stated in the grant agreement): January 1, 2005 – June 30, 2008

Date of Report (month/year): September, 2008

II. OPENING REMARKS

Provide any opening remarks that may assist in the review of this report.

Project MAMBOOGOOK[1] addresses both research and management needs for the conservation of the Philippine Eagle, one of world's globally threatened "king of birds" [2]. It aimed to collect scientific information on the eagle's conditions in representative habitats; what they eat, where they nest, how they behave, and the reasons why they die. By learning and understanding more about their ways and problems in the wild, we believe that the nation can do better at protecting them.

At the same time, the project implemented measures to protect the species and its habitat both at the local and the national level. At the national level, we facilitated a national workshop to develop a Philippine Eagle Species Action Plan. This plan is meant to serve as a blue print for unified actions for research, education, and habitat protection. By additionally sharing expertise with regional environment offices and national NGOs through training and extension, we aim to put into action a well-coordinated and consequently better research and management initiatives through out the country.

Locally, the project responded to direct threats to eagles and to nest sites to which they are very loyal. We did upland education and interacted with adults so eagles don't get shot or trapped. To protect nesting territories, we facilitated local legislations, did adult and school education, built local capacity, and helped set up habitat management plans.

But the management actions were research initiatives as well because while doing them, processes and outcomes were also documented. The aim was to know which actions worked and did not work and tell peers about it in conferences and through publications. By doing these, we hope to enrich not only our way of doing conservation, but hopefully those of others as well.

[1]Local "Mandaya" tribe name for a Philippine Eagle [2]English translation of its Filipino name "Haring Ibon"

But segregating eagle habitats from development is easier said than done. Eagle territories we wanted conserved are the same places most locals wanted logged, mined and farmed. Public and official opinions were also divided over whether there is more benefit to protecting them or utilizing them. The Eastern Mindanao Biodiversity Corridor (EMBC) where we did most of the habitat protection component of this project is also the government's "mining and timber corridor". The EMBC also hosts the poorest towns.

III. ACHIEVEMENT OF PROJECT PURPOSE

Project Purpose:
Management outputs:
Local government unit, with host NGO and POs, sustain the implementation of the Philippine Eagle critical habitat management plan (PECHMP). Management plan shall include community-based protection and rehabilitation of nesting sites and territories.

Research outputs:
Philippine Eagle Working Group and partners to Philippine Eagle conservation use research results as basis for developing a Philippine Eagle Species Recovery Plan.

Planned vs. Actual Performance

Indicator	Actual at Completion
Purpose-level:	
PECHMP or its components incorporated into Municipal/Barangay development plan within a year after the project	**In progress.** This indicator is the key result area of the first year of implementation for each of the 7 PECHMP.
DENR Region XI and XIII, through its Regional Eagle Watch Team, as well as PO, NGO and other collaborators implement IEC, research, and community-based habitat protection programs thereafter.	**In progress.** We are optimistic that this indicator will be our collaborator's response as an outcome of their participation to the project and to the "National Philippine Eagle Species Action Plan Workshop" held last February 2008.
Philippine Eagle Working Group meets to review and revise Integrated Species and Conservation Plan	**Accomplished.** A national Philippine Eagle Species Action Plan Workshop was held in February 2008, with majority of the Philippine Eagle Working Group members participating.

Describe the success of the project in terms of achieving its intended impact objective and performance indicators.

It's too early to tell whether the project has been successful at getting the collaborators genuinely involved with Philippine Eagle research and conservation. But there were very promising results with our local government partners. Mati City is leading the way. They were the first to enact a critical habitat ordinance, the first to mandate the implementation of the management plan and the first to allot US $ 22,000.00 for annual operations. Bislig City is quickly catching up by integrating the critical habitat plan into the City's Natural Resource Development Plan and allotting US $ 10,000 for mapping and delineating the critical habitat. As a long-term plan, Bislig City and the DENR, with funds from a congressman, are working for the declaration of the Tinuy-an Watershed as a national protected area. The proposed critical habitat is within the watershed. Our initiative serves as an interim protection, and the critical habitat will eventually be a "strict protection zone" inside the watershed once the area gets declared as a protected area. Pantukan, who is not as fund endowed, generously allotted an annual operations budget of US $ 1,100.00 for its eagle protected area. PEF is in the process of writing grant proposals to help the other municipalities with funding so they can execute their own management plans.

The project also provided the necessary push for revitalization of the government's own Philippine Eagle conservation program. Through the project, we have trained Regional Eagle Watch Team's of the DENR in five regions (Region II, XI, XII, XIII, and IV) on survey and research techniques. We are closely working with the Protected Areas and Wildlife Bureau (PAWB) to finds means to extend the training to the rest of the regions where REWTs also operate. Meanwhile, the Philippine Eagle Species Action Plan will be an important guide from which future work plans of the REWT will be based.

The project was also very successful at gathering primary and secondary data, packaging them, and mustering the right people and expertise for the National Philippine Eagle Species Action Plan, not to mention providing the funds and other important logistics to do the workshop. A new Species Action Planning is direly needed as the last action plan was published more than a decade ago. The workshop provided the needed updating of information and status and also provided the indirect benefit of renewing partner interests to eagle conservation.

One of the promising developments that came out of the project is a growing partnership between PEF and two international NGOs to sustain "critical habitat" initiatives in Mindanao. We just worked with the Conservation International Philippines (CI Philippines) and the Word Agro forestry Centre (ICRAF) on a project concept that seeks to improve community-based management of "critical habitats" using agro forestry and forest corridor techniques. This concept has been submitted to USAID for possible funding. CI Philippines and PEF also submitted a project concept to the IUCN Ecosystem Grants Program for the management of 5 critical habitats in Eastern Mindanao through community-based conservation and improved local governance. Indeed, the project sparked crucial collaborations for eagle and biodiversity conservation.

Were there any unexpected impacts (positive or negative)?

One unexpected positive impact is the on-going drafting of the plan to make the Philippine Eagle as a conservation focus for investment by a national NGO on Philippine forest conservation. Three of the board members of the Philippine Tropical Forest Conservation Foundation (PTFCF) who attended the workshop came up with a plan to use Philippine Eagle habitat requirements as a basis for approving forest protection and reforestation projects by funding applicants. PEF is currently working on a draft proposal on such plan for PTFCFs review and adoption.

IV. PROJECT OUTPUTS

***Project Outputs**: Enter the project outputs from the Logical Framework for the project*

Planned vs. Actual Performance

Indicator	Actual at Completion
Output 1: Project management structure, monitoring and evaluation in place.	
1.1. Project staff hired within 1st quarter of Year I	**Accomplished.**
1.2. Office furniture and field equipment purchased and issued to staff by the end of 1st quarter of Year I	**Accomplished.**
1.3. Activities carried out as scheduled	**Accomplished.**
1.4. Monitoring and evaluation plan implemented by the 3rd quarter of Year I	**Accomplished.**

1.5. New proposals to leverage funding submitted to other funding agencies	**Accomplished.** As of this writing, five grant proposals have been approved.
1.6. Regular reporting	**Accomplished.**
Output 2: Philippine Eagle Critical Habitat Management Plan (PECHMP) developed and implemented.	
2.1. PECHMP technical working group organized by the 2nd quarter of Year I	**Accomplished.**
2.2. Technical working group meet annually	**Accomplished.**
2.3. Interim PECHMP adopted by the EMC Eagle alliance by the 4th quarter of Year I	**Accomplished.** PECHMP incorporated into the EMBC framework.
2.4. Improved PECHMP published and circulated by the last quarter of Year III	**Accomplished.** PECHMP published for each of the proposed critical habitats
Output 3: Baseline data on the ecology and status of Philippine Eagles at EMBC, CMBC and SMBC gathered and analyzed: -breeding density, feeding ecology, behavior, movement and habitat use, juvenile movement and mortality, and local perception studies	
3.1. At least 4 breeding pairs/nesting territories studied at the end of 2nd Quarter of Year III	**Accomplished.** Diet and breeding behavior of four breeding pairs studied. Results were part of the MSc dissertation of Jayson Ibanez, the project's Coordinator.
3.2. Distribution of eagles mapped and breeding density measured by the end of 4th quarter of Year III for the EMBC and CMBC; and first quarter of Year IV for SMBC.	**Accomplished.** Occurrences of Philippine Eagle pairs in the EMBC, CMBC and SMBC mapped and density measured.
3.3. GIS archive of eagle research data completed by the end of 3rd quarter of Year III	**Accomplished.** Eagle research data archived at the UP Mindanao GIS Laboratory
3.4. Results of GIS analysis of 8 critical habitats and recommendations on zoning completed by 3rd Quarter of Year III	**Accomplished.** GIS map overlays for each proposed critical habitat submitted to DENR as part of the documentation.
3.5. Drafts of technical papers undergoing peer-review by the last quarter of Year III.	**On-going.** Draft of eagle diet and breeding behavior paper undergoing internal review. Paper on critical habitat establishment to be published as proceedings of a conference. Other papers being written up: a) local perception on Philippine Eagles in the EMBC and SMBC and b) density of Philippine Eagles in Southern Sierra Madre and the EMBC.

Output 4: Mechanisms to implement Philippine Eagle Critical Habitat Management Plan (PECHMP) in place	
4.1. Philippine Eagle critical habitat recognized as a management unit within EMBC as reflected in the EMBC conservation framework published by Year IIII	**Accomplished.** Philippine Eagle critical habitats recognized as a management unit in the Regional Physical Framework Plan (RPFP) of Region XI and the Eastern Mindanao Biodiversity Conservation Framework.
4.2. Application to declare eagle territories as critical habitats under RA 9147 submitted by the end of Year III	**Accomplished.** Documents already with DENR.
4.3. At least 6 municipalities and barangays declare eagle nesting territories as critical habitats/eagle sanctuaries by the last quarter of Year II	**Accomplished.** Two cities and five municipalities had officially declared their respective Philippine Eagle sanctuaries/protected areas.
4.4. Forms of public campaigns in place or conducted 3rd Quarter of Year I	**Accomplished.** Community and school-based education campaigns implemented in each of the seven proposed critical habitats.
Output 5: Trained research collaborators and parabiologists on raptor research and management techniques	
5.1. Preparatory meeting with project partners to identify training needs completed by the 1st quarter of Year I (concurrent to consultation with regional authorities). For the SMBC, this will be completed during the second quarter of 2006.	**Accomplished.**
5.2. Training design and modules completed by 1st quarter of Year I for the EMBC. Completed by the 2nd quarter of 2006 for the SMBC.	**Accomplished.** A training manual entitled "Raptor Research and Management Techniques Manual" was published. The English manual was also translated into the "Filipino" and "Visayan" dialects for the benefit of parabiologists in Southern Sierra Madre and Eastern Mindanao, respectively.
5.3. Training-seminar for 30 parabiologists from EMBC completed by the 3rd quarter of Year II and first quarter of 2007 for the SMBC.	**Accomplished.** Ten (10) parabiologists from eastern Mindanao were trained in 2006, 26 participants more from eastern Mindanao in 2007, and 13 parabiologists in Southern Sierra Madre in Luzon in 2008.
5.4. Training-seminar and field exposure for 30 research collaborators completed by the 2nd Quarter of Year for EMBC and 2nd quarter of	**Accomplished.** Trained 34 participants from the environmental department, local government units and a university of Region XI in 2005, and 26 participants from the local

2006 for the SMBC	government units, DENR Regional Eagle Watch Teams and an NGO from Mount Irid-Angilo-Binuang in Luzon in 2007.
5.5. Completed hands-on training of 60 research collaborators and 60 parabiologists	**Accomplished.** Trainees joined fieldwork in their respective territories.
Output 6. **Assist other organizations implement a similar project in Northern EMC and the Sierra Madre Mountains**	
6.1. Training-workshop on raptor research and conservation completed for 24 participants	**Accomplished.** In 2005, 21 biologists and conservation practitioners from member organizations of the Philippine Eagle Alliance (i.e. Conservation International Philippines, Protected Areas and Wildlife Bureau, DENR, Haribon Foundation, DENR Region XI, XII, XII, and II, WWF-Philippines, and one NGO) attended an intensive 10-day training with lectures held at the Philippine Eagle Center in Davao City, and field exercises conducted in a Philippine Eagle nesting site in Central Mindanao.
6.2. Fieldwork to assist Haribon Foundation, Kabang Kalikasan ng Pilipinas, Conservation International-Philippines with their field research completed by the 2nd quarter of Year I	**Accomplished.** Joined an expedition at Penablanca Protected Area in Northern Sierra Madre hosted by the Conservation International Philippines in March, 2005 and an expedition at General Nakar, Quezon in Southern Sierra Madre hosted by the HARIBON Foundation in May, 2005.
Output 7. **Public information and education campaigns implemented**	
7.1. Distributed/installed 3,000 posters and billboards in strategic places across the EMBC, CMBC and the SMBC	**Accomplished.**
7.2. Systematic IEC conducted among communities and localities in confirmed Philippine Eagle Territories across the EMBC, SMBC and CMBC	**Accomplished.** We implemented a school-based education campaign in elementary schools within five proposed Philippine Eagle "critical habitats" and three more grade schools close to eagle nest sites from 2007-08. A total of 1,443 students from Grades 2-5 were provided with workbooks on forest conservation and their teachers getting training on integration teaching and environmental education. In 2008, one school close to another proposed critical habitat was added, resulting to a total of 9 schools covered by the project. A total of 1,598 students benefitted for SY 08-09. For community campaigns, we have visited and interacted with at least 60 upland

	communities in Eastern Mindanao, Central Mindanao and Southern Sierra Madre.
7.3. LGU and other collaborators incorporate Philippine Eagle IEC strategy into their own IEC plan and also use materials shared to them	**Accomplished.** Partner LGUs hosted their own "Philippine Eagle Week" celebration and used project materials as education exhibits. They have committed to host eagle week celebrations each year.
Output 8. Production of and Advocacy for the EMBC Conservation Framework	
8.1. 2-day Joint Meeting of the EMBC TWG (Region XI and Caraga Region) held in February, 2008	**Activity modified.** Instead of having the joint meeting, we had each of the TWG members review the draft framework individually.
8.2. Presentation with the RDC (Region XI and Caraga Region) held in February, 2008	**To be implemented.** Framework to be formally presented to the RDC's in their upcoming meeting.
8.3. Printing of 300 copies of the EMBC framework and disseminated by March, 2008	**On going.** Framework already in press.
8.4. Presentation to get resolution of support from EMBC LGUs	**To be implemented.** PEF will continue with getting resolutions simultaneous with on going activities of other projects across eastern Mindanao.

Describe the success of the project in terms of delivering the intended outputs.

The project performed successfully. Despite the plunge in the Philippine Peso value of the US dollar (we have lost a significant amount of project money because of the drop in foreign exchange rate from 1 US $ to Php 56.00 when the project started to as low as Php 44.00), the project team made best use of available funds and satisfactorily delivered its targeted outputs. For Output 2 for example, we aimed for six proposed critical habitats, but ended up delivering 7 sites.

Local government participation to critical habitat work was also remarkable and very promising. Mati City, Bislig City, Tarragona and Governor Generoso led the group as they responded relatively fast to completing the legal and documentary requirements. A big boost to the initiative was also provided by the provincial government of Davao Oriental when the legislative council issued a resolution requesting the DENR Secretary to fast track the declaration of all of the five proposed critical habitats in the province.

For OUTPUT 3, increased field efforts to study and monitor Philippine Eagle ecology has greatly improved our knowledge on proximate factors that limit numbers in the wild. The influx of new information from our field crew has calibrated our strategies and actions on public education, habitat protection, and species restoration. For example, as a result of a four-year study of eagle breeding success, behavior, and longevity, it appears that prey availability and poor breeding success are not the major causes of recent decline. However, it appears that increasing survival rates in adult birds is very critical, and should be a priority. As a result, our plans for the next five

years were fine tuned to include more investment on adult education, with a focus on communities living near eagle nest sites.

Our studies of birds with satellite and radio-transmitters also underscore the importance of education. One of two young eagles we have been tracking at Mt Kitanglad was shot and killed by a hunter inside the protected area. Tracking of these birds are well publicized and education campaigns in communities within 5 km radius of the research site were done. Unfortunately, these efforts were not enough to save the bird from a single hunter who shot the bird and ate it. This incident suggests a disturbing possibility. Eagles in protected areas remain vulnerable and birds in unprotected areas all the more so.

As a result of our diet studies, feeding of Philippine Eagles on domestic animals and pets such as chicken, cats and dogs was finally confirmed. This has great implications as predation on domestic animals will most likely result to the animal owner shooting or trapping the eagles to alleviate his losses. Effective education and forms of conservation incentives are crucial in places where people and eagle conflicts are tense.

We have also begun our advocacy with the DENR to re-focus the efforts of its Regional Eagle Watch Teams (REWT) to adult education as well, with an end objective of preventing shooting, trapping and other forms of persecution of breeding pairs and their young. DENR fund allocation to eagle monitoring is minimal and can only sustain short term visits (e.g. maximum of five days). Education (e.g. community lectures, theatrical presentations, one day exhibits) requires minimal investment and can yield measurable results even if executed only for a few days.

For efforts at Southern Sierra Madre, finding eagle nests and mapping them was more challenging than in Mindanao. One reason is the different weather regime there. Typhoons and heavy rains went in the way of fieldwork. Unlike in Mindanao where fieldwork is possible almost through out the year, rains and strong winds in the mountains of Southern Luzon is erratic. The only opportunity for fieldwork is narrow, lasting only four months at the most. Some areas had insurgents as well. In one survey site, rebels confiscated our field equipment and the stuff was never returned. We could not also depend on indigenous peoples for finding nests. Because of myths that eagles feed on people, the indigenous “Agtas” fear and avoid the eagles. Thus, no one is helpful with finding nests. In contrast, many of our known nests in Mindanao were located by local villagers.

But despite these challenges, we executed field surveys and narrowed down on areas with possible nesting pairs. Using historical records, sightings by the field crew and evidences of occupancy such as feathers and account by local people of accidental encounters with the birds, we came up with a preliminary map of eagle distribution. Philippine eagles were rarely encountered during the survey and interviews with villagers suggested that the eagles were uncommon. A few investigators believe that eagles in Luzon have lower densities compared to Mindanao. Based on this anecdotal information, it seems that such suspicion is true.

The project provided the opportunity to start work on the northern range (Luzon Island) of the species. The first two years of a new conservation project is often the most difficult. But we made it though this crucial stage in Southern Luzon, and we just received follow through funding that allowed us to build on the promising results with CEPF.

Popularizing the “critical habitat” initiative and developing public awareness and appreciation of the use of Philippine Eagles as a flagship for nature conservation were the general aims of OUTPUT 4. We worked with various groups and across the hierarchy of governance. We are happy to report that the public’s response was generally positive. In Davao Oriental for example, the provincial legislative council was apparently convinced about the merits of using the Philippine Eagle as a flagship for conserving the province’s forest so that they issued a resolution requesting the DENR Secretary to expedite the declaration of five nesting territories as critical habitats.

But there were setbacks as well. In Manay, for example, the town's legislative council was divided over whether to protect the eagle nesting territory or relegate it to mining. Apparently, this unresolved debate slowed down the council's compliance to application requirements. The same case is true for Caraga. Although there were similar council debates in the other towns, strong endorsements by the Mayors and Vice-Mayors were instrumental in arriving at a consensus. In contrast, the LGUs of Caraga and Manay were not as fired up as the others.

The capacity-building component of this project (OUTPUT 5) was very successful as well. We got more than 90 % response to training invitations for LGUs, DENR Regional Staff, NGOs and Local Universities. A total of 60 collaborators and 39 parabiologists were trained. The feedbacks we got after the training were also very positive. Everyone appreciated our efforts at sharing techniques and experiences. In Region IV, for example, one participant remarked that it was only after undergoing the training that she made sense of her role as a member of the Regional Eagle Watch Team. Several also claimed that the training was very comprehensive and practical and has effectively covered what techniques and tools an eagle conservation practitioner must know and practice to become effective.

The training we did and assistance extended to the members of the Philippine Eagle Alliance (OUTPUT 6) were our commitment to building the capacity of alliance members on eagle research. This output was part of an alliance work plan that spans the duration of CEPF investment in the country. Because the activity was based on an alliance consensus, implementation was not a problem. The representatives were very cooperative. But noteworthy is CI Philippines' decision to invest further on Philippine eagle research in Northern Sierra Madre for the long haul.

Output 7, the project's public education component, is both a management and a research endeavor. Management, in the sense that campaigns attempted to change public attitudes hoping it would result to greater public participation to conservation. And research, because we also profiled and summarized adult perceptions and used these data as basis for campaign designs. For school-based education, we did pre- and post-test analyses of students' learning to measure learning gains and quantify how effective our education methods and our resource book were. There were no major problems implementing activities for this output as respondents were very cooperative. We think that of all the conservation strategies, education is the least controversial (i.e. not as controversial as establishing critical habitats), but has the greatest measurable short-term impacts.

Achieving OUTPUT 8 was also challenging. Getting the framework to press took more time than expected. The Project Coordinator took on the task of putting together workshop results and writing the introductory sections. There were no more funds available to hire a full time writer so there was no other recourse but to turn to project staff. Unfortunately, the Coordinator also had other critical project tasks on his hand, so that work on the framework was only on a part time basis. Thus, it took a while to finish the final draft. The framework though was finally put to press in August 2008, after a long review by a technical working group.

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

All outputs were realized.

V. SAFEGUARD POLICY ASSESSMENTS

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

Not Applicable.

VI. LESSONS LEARNED FROM THE PROJECT

Describe any lessons learned during the various phases of the project. Consider lessons both for future projects, as well as for CEPF's future performance.

a. **LGU as a potent leader in conservation at the local and regional level.** This lesson has been cited in our final report for the Biodiversity Archiving Project, but is worth re-echoing in the context of the eagle project. The project gained milestones in ecological governance with the local government units. Citing the case of Mati City in particular, the political will demonstrated by its chief executives and its legislative council were exemplary. Mati City is host to a mining exploration close to the critical habitat. There were political pressures to forgo the critical habitat initiative as the eagle nesting territory in Cabuaya is also a mineral interest. But the local government stood their ground and sealed the security of the eagle pair and the territory through resolutions, ordinances and by allotting annual funding. Bislig City also made a similar stance. The proposed critical habitat is within a logging concession. But because of the eagle nesting site's importance as a watershed and a wildlife sanctuary, the city defied the pressures and moved forward with excluding the site from development.

   The local government of General Nakar in Quezon Province, Luzon, also resists commercial logging. With the town officials of adjacent towns Infanta and Real where a few hundred people died during tragic landslides in 2004, officials of General Nakar met with the President and called for the cancellation of logging in Quezon. They wanted the eagle nesting sites found so their forests are totally exempted from logging. These actions reflect good governance which is a rare feat in the national government.

b. **More investment on forms of local conservation incentives whose value is comparable to, if not greater than, the incentives derived from destructive land uses (e.g. mining, illegal logging, etc.)**. Conservation initiatives in the uplands of Eastern Mindanao is losing out to mining, commercial logging, illegal logging, and agricultural expansion simply because local people do not directly receive income and services that meet basic needs from conservation. In contrast, logging and mining gives outright benefits in the form of roads, royalties, jobs, and infrastructures, which poor upland people have always longed for. During a public hearing on logging in Surigao del Sur for example, the company boasted about community incentives if logging is approved. Community folks were mesmerized, and the company got loud claps and cheers from the crowd. Logging started a few months later. Indeed, unless it directly meets basic needs at the minimum, conservation will always be sidelined in favor of destructive, but more lucrative, land uses.

c. Finding local conservation champions and implementing long-term conservation programs with them. We define local conservation champions as either local personalities (e.g. politicians) or organizations (e.g. LGU, NGO, Community) that implement best conservation practices. CEPF's investment in the Philippines, aside from making direct conservation impacts, also provided the opportunity for conservation champions to shine. In Eastern Mindanao for example, the chief executives and legislatives of Mati City, Bislig City, Tarragona and Governor Generoso and their respective host communities have clearly emerged as the top conservation champions. The LGU of San Isidro also in Eastern Mindanao signed a resolution supporting the expansion of the coverage of the Mt. Hamiguitan Protected Area to the dismay of mining prospectors. In Southern Luzon, that champion is the local government of General Nakar while in Central Mindanao, the local government of Sumilao and the host community of Lupiagan. We therefore believe that in planning for follow-through projects, including plans for increased investment on community-based conservation, these local champions who have great potentials for a consistent track record must be the top choices as long-term partners.

d. **Investment on conservation science.** CEPF's investment in the Philippines, which included funds for basic biodiversity and threatened species research by local NGOs, revolutionized the way conservation is done locally. By providing both research and management funds to NGOs, the gap between information and conservation practice has been bridged. Information no longer sits on the shelf or stay in the hard drives of computers, but is translated into conservation actions without delays. Investment on conservation science should not stop and local NGOs that adopt holistic approaches, including sound conservation science and community-based conservation, should be the priority partners for facilitating local conservation initiatives.

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

The fact that the project had both research and management components contributed to success. The flow of results from research provided immediate inputs for management. For example, three different but complementary studies (i.e. breeding success and longevity studies, diet studies and telemetry research) pointed out the importance of education to prevent death of eagles due to human persecution. As a result, we have refined our activities for OUTPUT 7 to address the problems of eagle persecution by people. Rather than continuing a "shot-gun" approach for education, we focused on adults in communities near eagle habitats and their children (through the "school for nature" initiative) mid-way into project implementation.

The use of the "critical habitat" initiative, a government prescribed management regime for species and forest conservation, was very effective. Critical habitats are mandated by the law (i.e. Republic Act 9147) with guidelines and steps clearly defined (Department Memorandum Circular No. 02-2007). Thus, what the project had to do was just to comply with each step. A local government-led establishment of critical habitats was also very appropriate. As a result of the enactment of the Local Government Code (RA 7160), the political and public atmosphere is ripe for local governments to take the lead in forest and species conservation.

The breadth of project scope helped with maximizing project impacts. At the national level, investment on a revitalized Philippine Eagle Species Action Plan was timely. Local and regional efforts, including those implemented by the project, found their rightful places in the national eagle conservation agenda. Investments to build the capacity of conservation practitioners on eagle research methods were also important to build local expertise. It can aid in the sustainability of research and monitoring efforts as well. The education component reinforced habitat protection and facilitated community approval to scientific researches that required community consents. The outputs were designed and executed in such a way that one complements the other, and that made the project very effective.

Project Execution: (aspects of the project execution that contributed to its success/failure)

Tapping into international and local experts for each of the project's components ensured that design of activities and the results were sound. UP Mindanao and geographers from UMA took the lead in the GIS work for the critical habitats, while CI Philippines provided assistance. Senior scientists of the Peregrine Fund and the National Aviary provided technical guidance and assistance with ecological research. Professional educators of Dep Ed of Region XI helped with teachers training and lesson plan development for the environmental workbooks. Educators with NDSU designed the student pre- and post-tests and analyzed data on learning gains for SY 07-08 and pre-test results for SY 2008-09. Resource persons from UP Mindanao School of Management, UP Diliman, and DENR guided the activities for the critical habitat establishment. A few more experts were mustered for the project and their engagement helped a great deal in project implementation.

VII. ADDITIONAL FUNDING

Provide details of any additional donors who supported this project and any funding secured for the project as a result of the CEPF grant or success of the project.

Donor	Type of Funding*	Amount	Notes
The Peregrine Fund	A	$ 10,000.00	Funds for telemetry fieldwork
Marubeni Energy Services	A	$ 10,000.00	Funds for telemetry fieldwork
National Geographic Magazine	C	$ 3,000.00	Funds for eagle behavior and diet studies
Ocean Park Conservation Fund	C	$ 28,000.00	Funds for research and education in Southern Sierra Madre, Luzon
Sea World and Busch Garden	C	$ 10,000.00	Funds to replicate survey and education work in Samar and Leyte islands
Wildlife Conservation Society	C	$ 15,000.00	Funds to continue satellite telemetry work on adult eagles
North Star Science and Technology	C	$ 6,000.00	Satellite transmitter grant
University of Massachusetts at Amherst	A	$US 11,000.00	In kind, calculated in terms of licensed software, GPS, laptop and books donated, resource use and time spent on the project, travel expenses of resource persons to and from the US, etc.
University of the Philippines in Mindanao	A	$US 3,428.00	In kind, electricity, room use and security provision for the GIS laboratory for the whole project duration
Upland Development Programme (UDP)	C	$US 20,000.00	UDP engaged PEF to coach 5 local government units in Davao Oriental to delineate, profile and protect community forest areas
American Express (AMEX)	C	$ 11,904.00	AMEX donated funds for the construction of a grade school building to support biodiversity education in one community within Mount Hamiguitan Range

****Additional funding should be reported using the following categories:***

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

B *Complementary funding (Other donors contribute to partner organizations that are working on a project linked with this CEPF funded project)*

C *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.)*

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

Provide details of whether this project will continue in the future and if so, how any additional funding already secured or fundraising plans will help ensure its sustainability.

Management of the critical habitats in Mati City, Bislig City and Pantukan will be sustained by fund allotment from the LGU. To build on what has been achieved with CEPF in five critical habitats, PEF and CI Philippines submitted a concept proposal to the Ecosystem Grants Programme of the IUCN. The proposed project aims to strengthen management of the critical habitats through community based conservation and improved land use planning by the host LGUs. PEF, CI Philippines and ICRAF also submitted a project concept that aims to implement agro forestry techniques in developing a forest corridor along Eastern Mindanao to USAID.

For adult and school-based education, the Peregrine Fund provided funding to sustain efforts in critical habitats in Eastern Mindanao and 3 more nesting sites in Central Mindanao until the school year ends in 2009. To sustain education in these sites for the next three years, PEF and Jim and Joyce Grier of NDSU are currently working on a grant proposal. Meanwhile, education work has expanded to Southern Sierra Madre after an additional grant was received for research and education in July 2008 from the Ocean Park Conservation Fund (OPCF). OPCF provides long-term funding and we hope to sustain education work in Southern Sierra Madre with them.

Telemetry work on eagles in Mindanao and Southern Sierra Madre is supported by the Peregrine Fund (TPF). We just received fresh funds from them to continue tagging and tracking adult and juvenile eagles. North Star Science and Technology also gave free satellite transmitters while the Wildlife Conservation Society through its Research Fellowship Program (RFP) will be providing additional funding this year. OPCF provide funding to do telemetry studies of eagles in Southern Sierra Madre. We will develop grant proposals continuously to sustain telemetry studies in Mindanao and Southern Sierra Madre at least for the next five years.

VIII. ADDITIONAL COMMENTS AND RECOMMENDATIONS

The country's conservation flagship, the Philippine Eagle *Pithecophaga jefferyi,* is undoubtedly a world celebrity. The famous aviator Charles Lindbergh called it the "world's noblest flyer" to catch global notice to its troubles. In 2000, famed scientist E.O. Wilson listed the Philippine Eagle to the "Hundred Heart Beat Club" - animals likely to get extinct in a couple of years. Dubbed "King of Birds", this top forest predator is unrivaled by any Philippine wildlife in terms of publicity, gracing features even by global media like the National Geographic, BBC, and CNN.

But even fame and publicity has not saved the species from endangerment. Its population status remains precarious. Recent estimates suggest that there could be no more than 400 pairs all over the archipelago. But it is likely there are less of them than we think. In the face of the Philippines' rush to development, often at the expense of wildlife and their habitats, knowing which conservation actions must be prioritized to save the majestic Philippine Eagle from extinction is key.

Based on the results of and experiences with Project MAMBOOGOOK, we recommend the following follow through actions:

Research:

a. **Adult home range and habitat use through satellite telemetry.** Home range and territorial requirements of the Philippine Eagle and how it uses its forest territory are important baseline information for the establishment of "eagle protected areas".

b. Long term monitoring of breeding success and mortality rates. Measuring changes in population through time is important to know if numbers are declining or not. This is also important to know if conservation actions are indeed helping the species. For a wide ranging species like the Philippine Eagle, it is difficult to cover the whole range. But by focusing on a few sub-populations (e.g. all breeding pairs in two or three large ad isolated mountain ranges), we can have enough representation of population dynamics for the species.

c. Identifying suitable habitats for Philippine Eagles. This can be achieved through mapping and modeling methods using Geographic Information System (GIS). After enough samples of suitable nest and foraging sites have been characterized, we can use GIS techniques to identify suitable eagle habitats across the country and do surveys to find eagle breeding pairs there and work for their protection.

d. Test release of captive-bred birds and assisted dispersal of wild young birds to suitable vacant habitats. A few mountains, particularly in Luzon Island, are suspected to have lost its eagle population. If confirmed, one conservation option to increase population numbers is to seed these vacant habitats with potential eagle breeders from suitably-reared captive breeding stocks and wild young birds from other islands until a self-sustaining population gets established. Called inter-active management, this method is pretty standard for conserving critically endangered species.

e. Genetic study to know if there is no significant difference between eagles in Luzon and Leyte, Samar and Mindanao. Translocation of wild and captive-bred animals between islands is put on hold until a genetic study is implemented.

Management:

a. Conservation education to prevent forms of eagle persecution by humans. Populations of large, long-lived, slow reproducing birds of prey, like the Philippine Eagle, are quickly devastated by the untimely death of adult birds. Shooting and other kinds of human persecution affect the survival of these species even before their forest habitat is lost to clearing. We believe that the single most important conservation action to save these species is public education to change human attitudes toward these birds which are often based on fear and myth. Developing pride of guardianship of a rare, national bird can go a long way towards resolving this kind of abuse.

b. Maintaining the ecological integrity of nesting sites and excluding them from harmful developments. Remarkably, the eagles are very loyal to nesting sites. They use them repeatedly, making these sites critical for reproduction. It also during the nesting stages when they spend more time in the nest and its vicinity taking care and feeding their young that they become very vulnerable to persecution. Education and community-based habitat protection should be implemented, particularly in nest sites close to people.

c. Providing forms of conservation incentives to communities living close to nesting territories. Important nest and foraging sites are the same places that people wanted logged, farmed or mined. Providing alternative sources of income and forms of incentives are important to get local people involved with species and habitat conservation.

VIII. INFORMATION SHARING

CEPF aims to increase sharing of experiences, lessons learned and results among our grant recipients and the wider conservation and donor communities. One way we do this is by making the text of final project completion reports available on our Web site, www.cepf.net, and by marketing these reports in our newsletter and other communications. Please indicate whether you would agree to publicly sharing your final project report with others in this way.
Yes ___**X**___
No _____

If yes, please also complete the following:

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