

CEPF SMALL GRANT FINAL PROJECT COMPLETION REPORT

I. BASIC DATA

Organization Legal Name: Central Mindanao University (CMU)

Project Title: Participatory Biodiversity Assessment and Conservation of Mt. Hamiguitan Range, Davao Oriental and Its Environs for Development

Implementation Partners for This Project:

Bukidnon Resources Management Foundation, Inc. (BRMFI), a local NGO for the promotion and implementation of community-based resource management, biodiversity conservation and indigenous peoples rights. It manages the project fund receipts, disbursement and reporting. It directly assists the university in the actual field research, consolidation, analysis and reporting of project activities.

Department of Environment and Natural Resources (DENR), National Office for granting the Gratuitous Permit (GP) to Central Mindanao University for identification, collection and transport of flora and faunal specimens collected during the conduct of field biodiversity assessment. **Regional Office** for granting the local authorization for cooperation and coordination with the Provincial and Municipal Offices of the agency.

Local Government Units of the Municipalities of San Isidro, Mati and Governor Generoso of the Province of Davao Oriental for endorsement of the research project to the communities and facilitating the conduct of the field research.

Philippine Eagle Foundation (PEF) for assisting the training on Biodiversity Monitoring and Evaluation and faunal survey.

Project Dates: August 1, 2004-March 30, 2006

Date of Report (month/year): May 22, 2006

II. OPENING REMARKS

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

The project is a component activity of a bigger biodiversity assessment program of the Central Mindanao University (CMU) in Mt. Hamiguitan, Davao Oriental. The program encompasses:

Study 1: Inventory and conservation of endangered, endemic and economically important flora

Study 2: Conduct *ex situ* and *in vitro* conservation of endemic, endangered and economically important plants

Study 3: Inventory and conservation of mammals, birds, reptiles and amphibians

Study 4: Survey and conservation of butterflies.

Study 5: Socio-economic and demographic profiling; IEC materials production and capability building of communities on biodiversity monitoring and evaluation;

The project supported by CEPF fund focused on accomplishment of **Study 5**. It conducted field inventory and socio-economic and demographic profiling, training of community members on biodiversity monitoring and evaluation (BIOME), production of IEC materials on threatened and endemic species for public awareness, upgrading the Natural History Museum as a repository for botanical and zoological

voucher specimens, and community meetings, validation and confirmation of protected area site assessment (PASA) results.

The program aimed to inventory and conserve the endemic, endangered and economically important flora and fauna in Hamiguitan Range and its environs by involving the community.

III. NARRATIVE QUESTIONS

1. What was the initial objective of this project?

The specific objectives of the study supported by CEPF were to:

- a) Describe the vegetation types, socio-economic and demographic profile of Mt. Hamiguitan.
- b) Prepare information, education and communication (IEC) materials.
- c) Empower the community to conserve, protect and use of monitoring data on biological resources in Hamiguitan Range and its environs.
- d) Identify alternative livelihood projects in the community.
- e) Recommend conservation measures regarding protection of the flora and fauna.

2. Did the objectives of your project change during implementation? If so, please explain why and how.

The project objectives remained the same during the implementation.

3. How was your project successful in achieving the expected objectives?

The project management team successfully established coordination with the local government units (municipal, barangay levels), DENR (National, Provincial, Municipal Offices) and academic institutions. It resulted in sharing of data, information and program plan in the conservation or management of Mt. Hamiguitan as a protected area. It also led to the participation of members of community forest protection team, local tourism officers and local residents in the identification of floral species, socio-economic data gathering and other activities during the conduct of the field surveys.

In close coordination with the Northern Mindanao Institute for Science and Technology (NORMISIST), the socio-economic profile was completed using the prescribed socio-economic benchmark indicators agreed upon by CEPF and Eastern Mindanao stakeholders. The data for the benchmark indicators were gathered by the project management team and submitted to NORMISIST for further analysis and consolidation. The socio-economic profile for Mt. Hamiguitan Range Wildlife Sanctuary is shown in **Annex 1**.

The project management team has produced and distributed posters, brochures, field guides and cd materials as IEC for protection and conservation of Mt. Hamiguitan Range Wildlife Sanctuary.

A vertical type aircondition unit, a glass and a wood cabinet were purchased by the project to upgrade the Natural History Museum located in Central Mindanao University campus. The museum serves as repository of herbarium and faunal specimens collected from Mt. Hamiguitan Range Wildlife Sanctuary.

The Biodiversity Monitoring and Evaluation (BIOME) Training was conducted jointly by CMU, BRMFI, PEF and DENR-PAWD-Region 11. A BIOME Training Guide Manual (Annex 2) was produced and distributed to all stakeholders that attended the training. A total of fifty (50) participants attended and actively participated in the lectures and actual field installation of the BIOME tools in one (1) site within the Mt. Hamiguitan Range. The site will serve as permanent monitoring plot for Mt. Hamiguitan Range.

The results of the participatory field survey validated and enhanced the PASA results, i.e. the areas declared as wildlife sanctuary are habitats of endangered, endemic and economically important flora and faunal species as shown in **Annex 3**. The areas need sound management to protect and conserve the species and habitats. The results of participatory field surveys on flora are summarized as follows:

Number of Families, Genera and Species of Plants

Plant group	World	Philippines	Mt. Hamiguitan
Angiosperms	250,000 +	8,120 +	710
Gymnosperms	750 +	33	27
Ferns	} 13,015	950	91
Fern Allies		82	13
TOTAL	263,765+	9,185+	841

Conservation Status of Plants Observed in Mt. Hamiguitan

Plant Group	Conservation Status				
	Endemic	Endangered	Rare	New Record	Economic
Fern Allies	0	0	2	0	5
Ferns	2	0	11	0	26
Gymnosperms	1	0	3	0	8
Angiosperms	41	9	11	7	138
TOTAL	44	9	27	7	177

Nine (9) nationally threatened plant species

- Alocasia zebrina*
- Cinnamomum mercadoi*
- Medinilla magnifica*
- Nepenthes copelandii*
- Shorea astylosa*
- S. guiso*
- S. negrosensis*
- S. ovata*
- S. polysperma*

FLORA	Philippines	Eastern Mindanao Corridor	Mt. Hamiguitan
No. of Species	9,184	2,300	841 (30%)
Endemism	?	1,380	44 (5.2%)

The results of the project were reported to the Protected Area Management Board (PAMB), Eastern Mindanao stakeholders, local government units and the communities within the sanctuary. The PAMB and the stakeholders used the information to improve management plan and patrolling the wildlife for violation/violators.

4. Did your team experience any disappointments or failures during implementation? If so, please explain and comment on how the team addressed these disappointments and/or failures.

The project was implemented at the same time with a similar CEPF-supported biodiversity assessment on Mt. Hamiguitan. It initially created confusion and unnecessary comparison among the local stakeholders and government line agencies. The research team from the Central Mindanao University initiated dialogues to synchronize activities, agreed that the other research team (Philippine Eagle Foundation) used the Gratuitous Permit issued to CMU by DENR and agreed to sign a Memorandum of Understanding for cooperation and exchange of information.

The field surveys and transects of the area revealed that mining exploration activity took place just outside the boundary of Mt. Hamiguitan Wildlife Sanctuary. The socio-economic profiling highlighted

unregulated rattan gathering, timber cutting and **almaciga** resin tapping by the members of the community living outside the periphery of the sanctuary. The areas outside the sanctuary are classified as lowland dipterocarp forest, which contains wildlife, and habitats that need to be protected and conserved. These informations were presented to the Protected Area Management Board (PAMB) for appropriate action. The project management team strongly recommended for the expansion of sanctuary areas to include the lowland dipterocarp forest just outside the boundary of the sanctuary. The members of PAMB are now deliberating on it.

The release of complementary fund from the Commission on Higher Education (CHED) to implement the other components of the project was delayed. The project management team used prudence in spending to be able to cover the cost of the activities and achieve the objectives of the project.

5. Describe any positive or negative lessons learned from this project that would be useful to share with other organizations interested in implementing a similar project.

The implementation of the project taught us that close coordination and prompt information exchange with other organizations or institutions are very productive in terms:

- a) of coming up with a more cohesive and comprehensive analysis and profiling of the area;
- b) making appropriate and relevant decisions for more effective conservation management
- c) mobilizing support for the implementation of the management plan for conservation and protection
- d) enhancement of IEC for conservation and protection

6. Describe any follow-up activities related to this project.

The project management team intends to:

- 1) maintain the cooperation with other stakeholders and PAMB through information exchange, biodiversity monitoring and evaluation and proposal development;
- 2) assist the other municipalities around Mt. Hamiguitan to establish the BIOME sites, implement the monitoring tools by the members of the Community Monitoring Team (CMT) and assist them in data analysis and interpretation so that biodiversity trends will be determined as basis for local ordinance and policy formulation; and
- 3) assist the CMT to conduct *in situ* and *ex situ* conservation of the endangered and endemic plants in Mt. Hamiguitan.

7. Please provide any additional information to assist CEPF in understanding any other aspects of your completed project.

The completed project is part of the Eastern Mindanao Biodiversity Corridor Conservation Program. The project management team is a regular member in the stakeholders planning team that formulate the Eastern Mindanao Biodiversity Corridor Strategic Framework Plan for the next five years. The output of the project is integrated in the baseline information and strategic plan of the framework.

IV. 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
Commission on Higher Education (CHED)	Complementary Funding	PhP 1,572,831.12	This project will be implemented starting May 2006

**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 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 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.

This project should continue specifically the biodiversity monitoring, conservation and capability building activities so that the Community Monitoring Teams (CMTs) will be fully empowered to protect and conserve the remaining endangered and endemic species and their habitats in Mt. Hamiguitan. The Commission on Higher Education (CHED) and LGU's will partly fund these activities but additional funds from CEPF are welcome to ensure success of the activities.

V. ADDITIONAL COMMENTS AND RECOMMENDATIONS

We would like to share the important output of the project, as follows:

- Annex 1. Socio-economic-cultural and political profile of Mt. Hamiguitan Range Wildlife Sanctuary.**
- Annex 2. The Biodiversity Monitoring and Evaluation Training Guide Manual for Mt. Hamiguitan Stakeholders.**
- Annex 3. Field Guide of the threatened, endemic and economically important flora species of Mt. Hamiguitan Wildlife Sanctuary.**

VI. 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 xx
No _____

If yes, please also complete the following:

For more information about this project, please contact:

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ANNEX 1.

SOCIO-ECONOMIC PROFILE OF MT. HAMIGUITAN WILDLIFE SANCTUARY

Table 1. Population Distribution and according to households, 2000 and 2004

Key Biodiversity Area	Total Population		Number of Households	
	2000	2004	2000	2004
Mt. Hamiguitan	180318	192970	35707	57811
Mati	105908	113339	21293	16798
San Isidro	31705	33930	6117	33144
Gov. Generoso	42705	45701	8297	7869

Table 2. Percent Increase of Population

Key Biodiversity Area	Total Population		Growth Rate (%)
	2000	2004	
Mt. Hamiguitan	180318	192970	0.210
Mati	105908	113339	0.070
San Isidro	31705	33930	0.070
Gov. Generoso	42705	45701	0.070

Table 3. Barangay distribution, according to urban - rural classification.

Key Biodiversity Areas & Municipalities/Cities	No. Of Rural Barangays	No. of Urban Barangays	Total No. of Barangays
Mt. Hamiguitan	54	8	62
Mati	20	6	26
San Isidro	15	1	16
Gov. Generoso	19	1	20

Table 4. Distribution of Population in EMC by Sex. 2000 & 2004

Key Biodiversity Areas & Municipalities /Cities	Male		Female	
	2000	2004	2000	2004
Mt. Hamiguitan	93040		87278	
Mati	54210	no data	51698	no data
San Isidro	16553	no data	15152	no data
Gov. Generoso	22277	21353	20428	20080

Table 5. Population Density relative to total land area by KBA and Municipality, 2000 & 2004.

Key Biodiversity Areas & Municipalities/Cities	Total Land Area in has.	Total Land Area in sq.km.	Density (persons/sq.km.)	
			2000	2004
Mt. Hamiguitan	118883	1188.83	452.14	483.86
<i>Mati</i>	68180	681.80	155.34	166.23
<i>San Isidro</i>	20250	202.50	156.57	167.56
<i>Gov. Generoso</i>	30453	304.53	140.23	150.07

5b. Population :Land ratio

Key Biodiversity Areas & Municipalities/Cities	Forested Area	Density relative to forest (ha)	A & D Land Use	Density relative to A&D	2004		A & D Land Use	Density relative to A&D
					Forested Area	Density relative to forest (ha)		
Mt. Hamiguitan	6119	6.979						
<i>Mati</i>					49.36%			
<i>San Isidro</i>								
<i>Gov. Generoso</i>	6119	6.979					13651.38	

Table 6. Land and Land Classification with the Number of Urban and Rural Barangays by Key Biodiversity Areas and Component Municipalities and Cities.

Key Biodiversity Areas & Municipalities/Cities	Land Area (ha.)	A & D Land (ha.)	Forested Land (ha.)	Forested Land (ha.)		Critical Areas (ha)	Buildup Areas (ha)
				Protection Forest	Production Forest		
Mt. Hamiguitan	118995						
<i>Mati</i>	68180		49.36%				4836
<i>San Isidro</i>	20520		2007				1.87%
<i>Gov. Generoso</i>	30295	13651.38					9

Key Biodiversity Areas & Municipalities/Cities	Poverty Incidence below threshold (# of families)		Poverty Incidence above threshold (# of families)		Employment Rate (%)	Unemployment Rate (%)	
	2000	2004	2000	2004	2000	2000	2004
Mt. Hamiguitan							
<i>Mati</i>					51.32	2.49	
<i>San Isidro</i>					9874	6582	
<i>Gov. Generoso</i>	70%		30%		93%	7%	

Key Biodiversity Areas & Municipalities/Cities	Existing Threats	
	2000	2004
Mt. Hamiguitan		
<i>Mati</i>	no data	mining
<i>San Isidro</i>	illegal fishing, over fishing	
<i>Gov. Generoso</i>	mining & quarrying, upland settlements, illegal fishing, illegal cutting of trees	