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**REPORT OF THE STAP SELECTIVE REVIEW OF
“PHILIPPINES: CONSERVATION OF PRIORITY
PROTECTED AREAS PROJECT”**

(Prepared by the Scientific and Technical Advisory Panel)

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STAP Selective Review of
"Philippines: Conservation of Priority
Protected Areas Project"**

*Prepared by
The Scientific and Technical Advisory Panel (STAP)
of the Global Environment Facility (GEF)*

November, 2001

**STAP Secretariat
United Nations Environment Programme**

Preface

It is a pleasure to present the final report of the STAP Selective Review on the “*Philippines: Conservation of Priority Protected Area Project*”. The Selective Review was undertaken as an integral part of the Programme Studies co-ordinated by the Monitoring and Evaluation Unit of the GEF Secretariat.

The STAP Review Team that visited the project sites would like to thank the staff of the project and of UNDP in Philippines for their assistance in undertaking the review.

This report was prepared by Drs. Maris Mangahas and Porfirio Alino of the University of the Philippines and myself.

Madhav Gadgil
STAP Chairman

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List of Acronyms

AD - Ancestral Domain
ADMP - Ancestral Domain Management Plan
BMS - Biodiversity Monitoring Systems
BNC - Bataan NGO Consortium
BNP - Subic-Bataan Natural Park
CBFPB - Community-Based Forest Protection Brigade
CBFMA – Community Based Forest Management A(?)
CO - Community Organisers
CoE - Council of Elders
CPPA - Conservation of Priority Protected Areas
CPPAP - Conservation of Priority Protected Areas Project
CRMP - Community-Based Resource Management Plan
DAR - Department of Agrarian Reform
DENR - Department of Environment and Natural Resources
DOT - Department of Tourism
GEF – Global Environment Facility
ICC - indigenous cultural communities
IEC – information-education-communication
IK - indigenous knowledge
IP - indigenous people
IPAF - Integrated Protected Areas Fund
IPO – organizations of indigenous peoples
IPRA – Indigenous People’s Rights Act (?)
IRA – Internal Revenue Allocation
KIN - Kitanglad Integrated NGOs
LGU - local government unit
M & E – Monitoring and Evaluation
NGO – Non Government Organization
NIPAS - National Integrated Protected Areas Systems
PAMB - Protected Area Management Board
PAMP – Protected Area Management Plan
PCU - Project Coordinating Unit
PIU - Project Implementing Unit
PNOC - Philippine National Oil Company
PO – People's Organizations
S & T - Science and Technology
SALT - Sloping Agricultural Land Technology
SS - Social Sciences
STAP - Science and Technology Advisory Panel
TA - Technical Advisors
TEKW - Traditional Ecological Knowledge and Wisdom
TOR - terms of reference
UNDP – United Nations Development Programme

Executive Summary

The Conservation of Priority Protected Areas – Philippines (CPPA) is a path-breaking experiment in organising conservation of biodiversity as a participatory endeavour involving a number of stakeholders; the national government represented through its Department of Environment and Natural Resources, the local governmental units at the Barangay and Municipal levels, a group of national NGOs active in fields of environment and development, local host NGOs primarily involved with rural development, People's Organizations representing various user groups such as fishers, and organizations of indigenous peoples.

Much has been accomplished through this pioneering experiment. There are in place significant institutional innovations such as the Protected Areas Management Boards (PAMB) that bring together multiple stakeholders to set policy and oversee implementation. The Biodiversity Monitoring Systems are functional, generating periodic assessments of the efficacy of the system, providing important feedback to the managers and PAMBs. There are, however, certain difficulties, especially in the resolution of issues relating to tenure and elaboration of sustainable livelihood projects so vital to participation of local communities. This whole range of issues is being dealt with through a review spearheaded by Drs. Volonte and Hough. The Science and Technology Advisory Panel (STAP) of GEF worked hand-in-hand with this overall review to focus on issues pertinent to its own specific mandate, namely, on what has been attempted and what broader lessons can be drawn in relation to: (a) providing Science and Technology (S & T) including Social Sciences (SS) as well as Traditional Ecological Knowledge and Wisdom (TEKW) inputs to the design, implementation and monitoring of the project; (b) developing S & T, SS and TEKW capacities in conjunction with implementation of the project to address global environmental challenges; and (c) designing S & T, SS and TEKW institutions in conjunction with implementation of the project to build up capabilities to address global environmental challenges.

With these objectives in view the STAP team comprising STAP Chairman, Prof. Madhav Gadgil, and two Philippine consultants familiar with the ground realities, Dr. Maria Managhas, an anthropologist and Dr. Porfirio Alino, an ecologist, both with the University of Philippines developed a set of terms of reference (TOR). The TORs focussed on four themes, namely, participation of S & T, including SS community; deploying TEKW and sustainable use practices of local communities; putting to use an understanding of stakeholder behaviour and learning through doing.

Good beginnings have been made in involving S & T community in the prioritisation phase and in designing the biodiversity monitoring systems. It is however important that strong links be established amongst science-technology/social science/traditional ecological knowledge streams; links that are largely absent today. It is then necessary to develop these knowledge enterprise communities to constitute advisory groups to work with PAMBs, and to assume a major responsibility for monitoring and evaluation that can provide inputs for adaptive management practices. It would be worthwhile examining these possibilities to develop a sound project under the upcoming GEF Capacity Development Initiative.

While there is considerable awareness of ecological knowledge and wisdom available especially with the indigenous people, there is still much scope to systematically document and link this to protected area management and benefit sharing. As stressed above, it is also important to build bridges amongst the anthropological community focussing on TEKW, other social scientists and the S & T community and protected area managers.

CPPA represents a pioneering effort to confront the challenge of meaningfully involving a whole range of stakeholders in the endeavour to protect biodiversity. Only a limited understanding of the complex interactions is so far available and it would be worthwhile promoting a targeted research project to document the experience. Such research would provide important lessons for developing the GEF portfolio in conservation and sustainable use of biodiversity.

This innovative project has in place some of the more important elements relevant to adaptive management, in particular, a biodiversity monitoring system generating management oriented inputs for the Protected Area Management Board. It would now be worthwhile to take the next step and put in place carefully thought out mechanisms to consciously implement a regime of adaptive management.

SECTION 1: INTRODUCTION AND BACKGROUND

1.1 Introduction

As part of the preparations for the Second GEF Overall Performance Study (OPS2), the GEF Monitoring and Evaluation Unit co-ordinated a number of programme studies in climate change, biodiversity and international waters. STAP was requested to participate in these studies, especially for the review of selected features of projects which are oriented towards scientific and technical objectives. One such project selected by the Monitoring and Evaluation Unit for analysis, through a selective review was “*Philippines: Conservation of Priority Protected Areas.*”

1.2 Overview of the Project

CPPA is a path-breaking experiment in organising conservation of biodiversity as a participatory endeavour involving a number of stakeholders; the national government represented through its Department of Environment and Natural Resources (DENR), the local governmental units (LGU) at the Barangay and Municipal levels, a group of national NGOs active in fields of environment and development, local host NGOs primarily involved with rural development, People's Organizations (PO) representing various user groups such as fishers, and organizations of indigenous peoples (IPO). This pioneering experiment was triggered by Philippine's return to democracy through an exercise of people's power. This constituted a watershed; leading to a realization of the very positive role of the civil society in nation building efforts. This coincided with the global realization of the environmental crisis culminating in the Earth Summit and the elaboration of the Convention on Biological Diversity, with its recognition of the need to respect the knowledge and sustainable use practices of indigenous communities. All these tendencies came together to mould the National Integrated Protected Areas Systems (NIPAS) legislation which set up this significant experiment in conservation as a broad-based participatory process. A set of ten priority protected areas out of over three hundred initially considered were sought to be managed as a GEF - funded project, Conservation of Priority Protected Areas (CPPA) as a follow up of the NIPAS act. CPPA, Philippines therefore represents an important case study for issues relating to participation.

1.3 Selective Review

Much has been accomplished through this pioneering experiment. There are in place significant institutional innovations such as the Protected Areas Management Boards (PAMB) that bring together the multiple stakeholders to set policy and oversee implementation. The Biodiversity Monitoring Systems (BMS) are functional, generating periodic assessments of the efficacy of the system, providing important feedback to the managers and PAMBs. There are, however, certain difficulties, especially in the resolution of issues relating to tenure and elaboration of sustainable livelihood projects so vital to participation of local communities. This whole range of issues is being dealt with through a review spearheaded by Dr. Claudio Volonte of M & E Unit of GEF Secretariat, and Dr. John Hough of UNDP-GEF cell. The Science and Technology Advisory Panel (STAP) of GEF worked hand-in-hand with this overall review to focus on issues pertinent to its own specific mandate, namely, on what has been attempted and what broader lessons can be drawn in relation to: (a) providing Science and Technology (S & T) including Social Sciences (SS) as well as Traditional Ecological Knowledge and Wisdom (TEKW) inputs to the design, implementation and monitoring of the project; (b) developing scientific and technical, social science and TEKW capacities in conjunction with implementation of the project to address global environmental challenges; and (c) designing S & T, SS and TEKW institutions in conjunction

with implementation of the project to build up capabilities to address global environmental challenges.

With these objectives in view the STAP team comprising STAP Chair, Prof. Madhav Gadgil, and two Philippine consultants familiar with the ground realities, Dr. Maria Managhas, an anthropologist and Dr. Porfirio Alino, an ecologist, both with the University of Philippines developed a set of terms of reference (TOR) for the selective review.

A number of steps were undertaken in carrying out the selective review, namely, a comprehensive overview of the documentation on the project with an emphasis on scientific and technical issues; consultations with a wide cross-section of stakeholders involved in and/or associated with the project and site visits to locations where the project is being implemented (See Annex 1).

SECTION 2: ANALYSIS AND OBSERVATIONS

2.1 Introduction

The Terms of Reference for the Selective Review focussed on four themes, namely, participation of scientific and technical community, including social science community; deploying TEKW and sustainable use practices of local communities; putting to use an understanding of stakeholder behaviour and learning through doing. The observations of the STAP Team on the four themes as elaborated below.

2.2 Analysis on Observations

In addressing the main themes as identified in the Terms of Reference for the Selective Reviews a number of critical questions were highlighted which provided the basis for analysis by the Team. These are summarised in the following sections of this chapter.

2.3 Participation of Scientific and Technological Community

- In what ways have members of S & T community been involved in the various components of the CPPA project?
- How far has their scientific understanding contributed towards project effectiveness?
- How far has the involvement with this project helped build the capacity of the S & T community to engage positively in other programmes that promote global environmental objectives?

2.3.1 In particular what has been the involvement of the scientific and technical community in: Preparatory phase of prioritization of potential conservation areas. Assessment of conservation value of various localities.

The Conservation Biology community has made substantial advances in elaborating the methodology for prioritisation of potential conservation sites primarily based on biophysical parameters. A group of Philippine biologists participated vigorously in the initial prioritisation phase of the project employing this methodology on the ground; a good example of a north-south collaboration in the field of science and technology. Unfortunately there has been inadequate attention paid to social-economic-political criteria to be applied in such a prioritisation process to complement the biophysical criteria. This was reflected in the inadequate inputs received from the Philippine social science group to feed into the prioritisation exercise. As a consequence the initial selection was almost totally based on biophysical criteria. In particular, there was inadequate level of participation of the local communities in this exercise of selection of protected area sites. In fact, the indigenous peoples in one of the sites initially selected for the project refused to participate, so that the site had to be deleted from the project at a relatively late stage.

2.3.2 Selection and functioning of the Protected Area Management Boards (PAMB)

The PAMBs are primarily composed of officials elected to local government units and their designated representatives such as municipal planning and development officer, representatives of People's Organisations and nominees of DENR. There is little involvement of scientific and technical community and social science - TEKW communities in selection and functioning of PAMBs. In particular, there has been no thinking so far towards taking the advice of or inducting as members, people from the academic institutions of the locality. PAMBs therefore receive inadequate levels of technical inputs in their functioning.

2.3.3 Preparation of management plans, monitoring the consequences of management actions, modification of management plans in light of experience

The project co-ordination unit provides technical inputs into the preparation of management plans by making available services of consultants to provide technical advice. However there is no broader participation of scientific and technical and social science communities, such as through involvement of academics from local educational institutions in this process.

The Biodiversity Monitoring Systems (BMS) are a very positive feature of the CPPA project. There has been substantial scientific input into designing of the system, partly due to the contribution from the NORDECO programme, another excellent example of north-south collaboration. BMS also brings in TEKW through involvement of the local knowledgeable individuals. There is welcome evidence that BMS exercises are providing useful inputs to the deliberations of PAMBs. However there has been inadequate time to assess the role that BMS in particular and scientific and technical and social science communities in general may play in adaptive modification of the management plans.

2.3.4 Resolution of tenure and ancestral domain issues

The tenure and ancestral domain issues and the attendant conflict resolution processes are viewed largely as political - economic concerns with minimal need for scientific and technical community and social science inputs. There is a need to examine in greater depth the objective and technical bases for the resolution of these issues with scientific and technical community and social science involvement.

2.3.5 Understanding and resolution of conflicts between livelihood and protection needs

In this context, there is a serious lacuna in the inadequate levels of scientific and technical community and social science inputs.

2.3.6 Planning for alternative sustainable livelihood activities

This very significant component of the project has made little headway. There have been inadequate technical inputs into planning for the alternatives, and it would be worthwhile involving scientific and technical and social science communities in addressing this important challenge. The Community Organisers (CO) working with the host NGOs play an important role in developing the livelihood projects. The scientific and technical community could assist in their training for specific projects such as mud-crab fattening. More importantly, the scientific and technical community and social science communities should help assess the broader implications of livelihood activities for the biodiversity conservation objectives.

2.3.7 Ecological research, involving monitoring and formulation of adaptive management policies in light of experience

Technical Advisors (TA) brought in to help design the monitoring system techniques and activities have provided extensive inputs to develop this component of ecological research. However, this input has failed to progress to the further stage of ecological research to address the broader issues of achievement of biodiversity conservation objectives. It may be of great value to ensure that TAs could come to view M & E in this larger context of overall CPPA objectives. It would also be of value if M & E is developed as a tool to assess hypotheses regarding the

implications of the apparent best available management interventions in absence of adequate scientific information. This would enable M & E activities to promote adaptive management policies.

2.3.8 Establishment of new forms of institutions that would enable scientific and technical community to play a more positive role in taking good care of environment

Schools, colleges and their teacher-student communities possess much potential for bringing in the scientific and technical and social science communities' inputs to the project. Currently their involvement is either lacking or limited as in SIPLAS to information-education-communication (IEC) activities during one single science week per year. Such involvement could be extended with support from the Commission on Higher Education to promote a scientific and technical support network. Credit may also be given by TESDA for technical apprenticeship work with communities.

Systematic attempts could be initiated to build scientific and technical and social science communities' capabilities at the PAMB, PCU and NGO levels, possibly with Local Government Academies conducting courses on biodiversity conservation and natural resource management that can be credited with civil service rating upgrades or other informal incentive schemes.

The Ecosystem Research wing of DENR has at present no role in CPPAP. It could become productively involved.

PAMBs could try and develop mechanisms to link or establish complementary arrangements in using internal revenue allocation (IRA) funds and Integrated Protected Areas Fund (IPAF) to sustain M & E helping promote adaptive management.

The system of awards for good practices could be extended to local and regional settings in the context of biodiversity conservation, for instance, through giving recognition for outstanding conservation-oriented good practices during fiestas. S & T community could also work with mass media, for instance, in developing radio talk shows on practical ways of approaching day to day issues relating to protected areas.

2.3.9 Conclusions

Good beginnings have been made in involving S & T community in prioritisation phase and in designing the biodiversity monitoring systems. It is however important to create good links amongst science-technology/social science/ traditional ecological knowledge streams; links that are largely absent today. It is then necessary to develop these knowledge enterprise communities to constitute advisory groups to work with PAMBs, and assuming major responsibility for monitoring and evaluation that can provide inputs for adaptive management practices. It would be worthwhile examining these possibilities to develop a good project under the upcoming GEF Capacity Development Initiative.

2.4 Deploying traditional ecological knowledge and sustainable use practices of local communities.

Traditional ecological knowledge and wisdom (TEKW) in the Philippines today is more often spoken of as IK or indigenous knowledge that belongs to the 'indigenous peoples' or IP's. There have been landmark studies on ecological knowledge and sustainable practice, such as on the system of *kaingin* or swidden farming,¹ and on knowledge of plants, especially those with

medicinal value.² Ethnolinguistic studies on the extensive or 'encyclopedic' knowledge of natural history in some groups,³ and a range of material concerning traditional regulation of use and of access to resources (or 'management') among indigenous communities in the Philippines⁴ exist. In recent years there has been increased interest in indigenous forestry or farming or fishing knowledge and issues of gender and ecology. However indigenous knowledge and IP participation in protected area management is a new aspect in this field. In general, the extent to which TEKW and even simply local knowledge are utilized in PA management will depend greatly on the quality of participation of local communities.

The best example of the potential for deploying TEKW in Protected Areas Management would be the Mt. Kitanglad site (see Box 2.1), also because this is a site with a strong IP organization. The Kitanglad Integrated NGOs publishes a newsletter in which they have been discussing several issues like: indigenous resource management and farming technology and whether kaingin or slash and burn farming is still viable; the 'IP- or culture-based organizing strategy' which aims to revive and strengthen cultural integrity in order to mobilize communities for protection of the PA; drawing on the traditional class of 'warriors' or headmen (datus and baes) to act as forest guards; community mapping and cultural zoning; penalizing and requiring cleansing rituals for those caught in illegal activities. On Nov. 3, 1999, the IPs proclaimed ownership of all medicinal plants and resources in the mountain range, this was preceded by a documentation of the uses of all these plants. The declaration was also featured in the national papers.⁵

The Mt. Kitanglad Range Natural Park (MKRNP) on the north-central portion of Bukidnon encompasses 40,176 has. and is a major watershed in Northern Mindanao for parts of the provinces of Bukidnon, Misamis Oriental, and Cotabato. The range has more than a dozen peaks which are also among the highest in the Philippines. It is the first of the CPPAP sites to be enacted in law; Republic Act No. 8978 was passed by Congress on Nov. 9, 2000.

The MKRNP incorporates 28 barangays, and 47 sitios. According to the PIU, IPs comprise 90 percent of the population: 60.1 % are Talaandig, 23.5% Higaonon, 7.7 % Bukidnon and less than 9 % immigrants, but there is a mixed ethnicity among their children. The Kitanglad Integrated NGOs (KIN), the host-NGO, adopted a 'culture-based organizing strategy'. Among the aims of this approach is support of the institutionalization of the Council of Elders (CoE) and strengthening their ancestral domain claim. A unified claim among all the IP groups was made in 1995 for the entire mountain range and its adjoining areas. This claim is still pending with the National Commission on Indigenous Peoples (NCIP), although it is being disputed by municipal governments and the PAMB. The entire Mt. Kitanglad Range Natural Park and its boundaries therefore would potentially have a dual status as a Protected Area and an Ancestral Domain. Influential leaders involved in the protected area project envision the IPs to be real partners, via the CoE (Council of Elders) as managers of ancestral domain vis-à-vis the PAMB and its control over the protected area. The Ancestral Domain Management Plan would "demonstrate the tribe's resource management capability anchored on traditional knowledge on the land, as well as, enhance the authority of the CoE in local governance and decision-making".

"Only then will they be able to negotiate or dialogue with the PAMB and other sectors. And only then will they have a clear basis to demand that NIPAS-prescribed management zones be more responsive to their interests. The underlying premise is that effective PA management is not only a product of technical or scientific expertise... It boils down to the nature of power relations among different stakeholders. The IPs, therefore, as direct stakeholders, should have a substantial role in PA management. This role must go beyond mere participation, meaning it must reach the level of authoritative decision-making. This means ensuring that traditional governance is recognized in PA management, while seeing to it that accountability for decision-making over natural resources or the AD/PA itself is verifiable and evident." (Talamdan 5(3) Sept 2000).

The rationale for harmonizing the CPPAP project with the ancestral domain management plan is that biodiversity conservation is necessary for IP survival. Moreover, it was recognized that the Indigenous People's Rights Act vested IPs with a powerful mandate:

"Under the IPRA, ancestral domains shall be managed and developed in accordance with the customs, traditions, beliefs and practices of the indigenous cultural communities concerned. This issue is alarming to the PAMB which regulates the full management of the protected area because the single provision of IPRA on Free and Prior Informed Consent (FPIC) is a sufficient legal mechanism for the tribe to regulate entry to the protected area even without their Certificate of Ancestral Domain Title (CADT) as security of tenure. These conflicting concerns, indeed, are serious challenges to the management of protected areas." (Saway p.6)

According to KIN, the IP organizing process has involved, among other matters, the identification and profiling of cultural experts or simply, practitioners of IP culture; reviving indigenous structures of governance and community life—economy, defense, education, arts, music, history, literature, health, belief system/religion; revival of the tribe's defense system (the guards underwent cultural reorientation with the cultural experts as the resource persons) and their mobilization for forest protection; and a review of indigenous resource management practices like swidden-based agriculture. KIN also encouraged the holding of rituals for various purposes. It is not clear however to what extent these practices are shared between the different IP groups.

The CoE has set entry requirements for Mt. Kitanglad visitors and researchers in addition to the rules approved by the PAMB. In 1995, the tribal guards had confiscated 15 sacks of botanical specimens taken by a National Museum team without first asking permission of the CoE and which had no permit from PAMB either. On Nov. 3, 1999, following a documentation workshop, IPs proclaimed ownership of all medicinal plants and resources in Mt. Kitanglad range.

Recently, KIN has been conducting cultural zoning workshops aiming to delineate traditional boundaries of customary land use and natural resource management systems (as expressed in cultural zones). Types of

zones that were elicited include 'sacred areas', livelihood areas (e.g. 'for hunting wild pigs using dogs', 'wild pig sanctuary', 'granary', 'for hunting with traps', 'farmlots', 'for honey collection', and bodies of water), 'resource use areas' (for rattan and for timber extraction), 'dangerous areas' which are havens of bad spirits; areas for tribal guards ('checkpoints' and 'headquarters'); and natural areas (i.e. water source, spring, falls, cave, forest). The details of history, land use, and resource use are to be fed into a 3D map of the entire territory. This activity hopes to reconcile PA management priorities and strategies between IPs and the government.

Box 2.1: Mt. Kitanglad Range Natural Park (MKRNP) (see reference 6-11 at the end of the document)^{6, 7, 8, 9, 10, 11}

2.4.1 What do we understand of the prevalence of traditional ecological knowledge and wisdom (TEKW) amongst different local communities in Philippines? Was this taken into account in prioritization of conservation areas?

Some of the 10 priority protected areas had also been sites of ethnographic and ethnoscience studies, which touch on or specifically focus on knowledge and environment or on aspects of the protected areas project (e.g. Batanes¹²). However, in choosing the sites for the CPPAP, prioritization was based primarily on biophysical considerations. Nevertheless, nearly all of the CPPAP sites (except for Siargao which is populated by migrants, and for the Apo Reef which is uninhabited), have significant populations of indigenous peoples. In fact, apart from being among the few remaining areas of diverse endemic flora and fauna, historically (from colonial times to the present) many of the Protected Areas have also served as places of refuge of various communities of people resistant to dominant political structures (this includes the indigenous cultural communities). At the same time, being more sparsely inhabited, the protected areas have also historically been seen as ‘frontiers’ for colonization of migrants from other parts of the Philippines (this was systematically encouraged by the national government in some areas in the past e.g. Mindanao sites).

Local communities had not been involved in direct project planning for the CPPAP (for this reason the Mindoro site Aglit-Baco (see Wiens) declined to be part of the project). The NGO planners however have managed to draw local participation in implementation of the CPPAP since the project began. From the local point of view the project presents opportunities for the recognition of indigenous identity and for enhancing negotiation with government structures, although the situation is quite complex. Diversity in populations, including among the migrants and natives, and mixing between them, points up the need for developing systems and strategies for protected area management, tenure, and livelihood, that are specific to each site. The sites may have several IP populations possessing different languages and modes of life. On the other hand, in many of the sites the IPs are in the minority vis-a-vis migrants that have come to reside in the area (e.g. Mt. Kanlaon, Bataan). Many of the IPs are becoming more acculturated and some are distancing themselves from traditional modes of livelihood and culture. Meanwhile, IPs also wish to be treated as and to exercise the rights and privileges of regular citizens of the Philippines. Yet their status as IPs also lends particular privileges. Some IPs may seek to enjoy the freedom to invoke a duality of identity—‘indigenous person’/‘Filipino’.

Among the sites with significant IP populations, there are some that stand out for having particularly assertive IP communities and for being at the same time potentially rich in TEKW (e.g. Mt. Kitanglad and Sierra Madre).

2.4.2 Has the project helped develop methodologies of documentation and long term maintenance of traditional ecological knowledge, wisdom and practices of conservation and traditional use? Has it helped develop methodologies of assessing contribution of such knowledge and practices to value added products of biodiversity based enterprises? In what ways has the project helped develop ways and means of equitable sharing of benefits of use of traditional ecological knowledge and practices in commercial enterprises?

The Biodiversity Monitoring Systems do pay attention to the documentation of resource utilization and conservation practices of local communities. In particular: resource inventories, focus-group discussions, the making of activity calendars and of resource use maps can elicit

¹ Mangahas 1994

local knowledge and resource use patterns. Ethnographic studies have been conducted for some of the sites. There have also been workshops to transfer skills to local communities for researching their own culture. Some sites engaged in the systematic documentation and later declaration of ownership of knowledge of particular plants (Mt. Kitanglad).

The only way in which local people and IPs have actually come to share benefits is through acting as local guides and being paid for it. There are proposals to collect fees from resource users, but as yet no formulas for benefit sharing have been spelt out. The Philippines has also promulgated an act to regulate and charge for bioprospecting. However no mechanism for linking TEKW to bioprospecting activities and for sharing benefits have as yet been worked out.

On the other hand, initiatives have been made in some sites to restrict access by specimen collectors or potential bioprospectors (notably in Mt. Kitanglad), and to lay down specific penalties for transgressions. These cases are uniquely anchored on the revitalization of strong tribal organization and leadership (and the formal declaration of ownership of diverse species by indigenous communities in the site) and in successful cases complemented by a supportive LGU (e.g. via municipal ordinance that specimen collectors must first seek permission from the IPs based on the standard of prior and informed consent), making it possible to deal with such cases in both traditional and 'modern' fashions such that authority is matched in a 'complementary' manner by both political structures.

2.4.2 What kinds of efforts have gone into identifying individuals and groups with high levels of TEKW in the project area? Have attempts been made to ensure representation of such individuals and groups on the PAMBs?

Inroads have been made in identifying crucial personalities who have TEKW. In some sites those identified are people who occupy specialized social niches as ritualists, historians and healers. But in some cases these are made in the context of these personalities' overall leadership or respected position in the community rather than for their specific TEKW. In communities with less dependence on their resource utilization, the practical knowledge may relate to tourism interests (e.g. SIPLAS and SBNP) and even sometimes as a curiosity or as a historical anecdote. Identification of specialists and to what extent their knowledge is useful for park area management is for some a serendipitous process, i.e. needs for information and local knowhow surfacing out of the problems on the site.

In order to maximize participation in resource management planning by indigenous communities, great sensitivity to cultural issues among site managers is necessary. In particular, the PA structure preserves the local hierarchy of power through the barangay and the local government units and there are occasions where this is at variance with the IP perspective on representation. Especially for some semi-nomadic groups, smaller units like the settlement or band, rather than the barangay, may be the relevant decision-making unit (e.g. among Agta in Sierra Madre). Moreover, IP political organization and networks may transcend local government boundaries (e.g. as reflected in ancestral domain claims spanning several municipalities or provinces).

Numerically (in terms of proportion of the population), IPs are well-represented as one of the stakeholders in the PAMB. To enhance IP participation some PAMBs have expanded membership and created special committees for the IPs. In cases where IPs assert their own framework for community empowerment, this may clash with government, but it is also feasible that the two sides be seen as complementary. Given different frameworks, it is important to explore the ways by which traditional structures of authority and state structures, including civil society and the PA management can complement each other.

2.4.4 What attempts have gone into incorporating TEKW into design of the management plans? How has TEKW contributed to the resolution of tenure and ancestral domain issues? How has TEKW been used to resolve the conflicts between livelihood and protection needs? How far has TEKW contributed towards developing alternative, sustainable livelihoods?

Attempts have been made to incorporate TEKW through the BMS activities. These attempts to incorporate TEKW have yet to be well internalized and imbibed as a common practice in the design of management plans. For both site managers and local people, there exists some discomfort with regard to the value of traditional beliefs and associated practices in the present situation of ‘modernity’. Initiatives for translation into both the language of local community (for example of popular versions of management plans) and of managers (for example of the rationale behind traditional practice) could have a useful impact.

Perhaps the initial perceived conflicts with the traditional and modern approaches may be seen either as a divisive or deterrent factor to overall effective PA management. Thus while in some areas TEKW have been utilized to help resolve conflicts, in other areas these have been the basic contentious issue e.g. the basic divergence in perspectives of how the NIPAs and IPRA law can be implemented. On a more tactical concern, TEKW surely is important to PA management especially in the livelihood concerns of the community (e.g. fishing practices and mariculture adjacent fish sanctuaries). In the light of increasing market demands (e.g. logs and tourism) there will be a persistent concern and challenge on how to match the appropriate scale of how to implement the TEKW context in a fast changing and incipient globalizing push.

On issues of tenure, site managers have relied on on-call Technical Assistants to help resolve these. It is in IP interests to claim for ancestral domain under IPRA, however in the past administration DENR has tended to favor CBFMAs. Harmonizing Ancestral Domain Management Plans and Protected Area Management Plans presents the next challenge for the PAs. It would be useful to understand the patterns of pioneer approaches in a defined ‘frontier situation’ (more useful than appreciating forest or marine zones as being simply in situations of ‘open access’). CRMPs/ADMPs have to be incorporated into PAMP and local development plans.

TEKW has not yet been maximized for livelihood projects. Ecotourism emerges as one of the main ‘non-destructive livelihood alternatives’ and in which the IP’s themselves are sometimes also a selling point.

2.4.5 Have there been successful attempts to build new or strengthen old institutions which would take advantage of TEKW to promote environmental objectives?

There have been initial successes in some areas to modify the concept of representation (which might be alien to some aspects of TEKW) to elicit the participation of the various stakeholders through the PAMB. The idea of communal stewardship of resources and intergenerational responsibilities of communities varies in different areas and thus these concepts require appropriate needs assessment on a case to case basis. Since these concerns (i.e. “representation and decision-making”, tenure and stewardship roles) are not well understood then perhaps confidence can be fostered by trying to work together and understanding towards a shared vision or sharing the possibility of how the process of understanding can be undertaken through an adaptive management approach.

2.4.6 Conclusions

While there is considerable awareness of ecological knowledge and wisdom available especially with the indigenous people, there is still much scope to systematically document and link this to protected area management and benefit sharing. As stressed above, it is also important to build bridges amongst the anthropological community focussing on TEKW, other social scientists and the S & T community and protected area managers.

5 Stakeholder behaviour analysis

2.5.1 What is the nature of current understanding of who are the different stakeholders shaping patterns of resource use and levels of protection achieved in relation to the protected area? What are the goods and services obtained from the protected area by the different stakeholders such as industry, bureaucracy, NGOs (international, national, local), various local community groups with different livelihood strategies? Has there been an adequate scientific analysis of the different categories of stakeholders and their links to the protected area?

It seems that attempts to understand stakeholder behavior are based on the evaluation of the structural profile of the stakeholders and not yet a great appreciation of their functional relationships.

The focus discussion groups to some extent provide some understanding of the linkage of stakeholders behavior vis-à-vis a resource user but it is not very explicit how the resource use is linked to protected area management; Only seminal forms are seen where the resource utilization standpoint are being transformed into principles of sustained use and equity towards harmonizing the ecosystems resilience and “carrying capacity”.

2.5.2 Which categories of stakeholders are represented on PAMBs? Which stakeholders with a significant influence on the protected area are not represented in PAMBs? Which stakeholders play a significant role in development of the management plans, and which stakeholders have no such role? Which stakeholders have a significant influence on ways in which (i) tenure and ancestral domain issues are sought to be resolved, (ii) conflicts between livelihood and protection needs are attempted to be resolved, (iii) projects for supporting alternative sustainable livelihoods are developed, (iv) old institutions for management are strengthened, or new institutions designed; and which categories of stakeholders have no role to play in these matters?

The political elite primarily are members of the PAMB but areas of opportunity are open (e.g. greater memberships of IP s and other interest groups). The PASU have some technical skills, though this (i.e. as primarily foresters) may not be appropriate in answering the needs of protected area management. The NGOs have a significant role in protected area management in the sites and yet their skills and experience may be limited and constrained by preset outlooks which may not yet be fully attuned with protected area management.

Institutional arrangements can be enhanced to improve the arena of engagements for more effective conflict resolution mechanisms.

Efforts would be needed to minimize repeating mistakes with changes of personnel and institutions and to clarify the vision and objectives so that strategy and tactics (livelihood development) are relevant and consistent to biodiversity conservation. After careful evaluation of

information from the M&E and related experiences, it would be appropriate to develop new ways of doing and viewing things institutionally, individually and as a community. The aim would be to find the right complementation of resource users, managers and institutions and harnessing their efforts toward common goals and objectives, shared visions for biodiversity conservation and sustainable development.

2.5.3 Conclusions

CPPA represents a pioneering effort to confront the challenge of meaningfully involving a whole range of stakeholders in the endeavour to protect biodiversity. Only a limited understanding of the complex interactions is so far available and it would be worthwhile promoting a targeted research project to document the experience. Such research would provide important lessons for developing the GEF portfolio in conservation and sustainable use of biodiversity.

6 Learning through doing

2.6.1 What kinds of mechanisms are available to actively monitor the situation on ground, to learn the lessons thrown up in the course of project implementation, to ensure that these lessons are internalised and that the project is managed in an adaptive fashion? In particular what kinds of adaptive mechanisms exist in relation to development and implementation of (i) management plans, (ii) resolution of conflicts between livelihood and protection needs, (iii) development of alternative, sustainable livelihoods.

At present, various workshops and assessment mechanisms are being undertaken by the project and these can be a venue towards internalizing lessons learned from the project. One of the common questions which may be asked is : if one had another chance to do the project again, what aspect could have been done better and how would one do this better? Did the management planning process need to take that long considering the stakeholders who participated? Which aspects of protection are “must have” features (e.g. fish sanctuaries in SIPLAS and which aspects (e.g. local communities doing UW line-intercept transects) would not necessarily be needed?

Adaptive management is not yet internalized in the livelihood and protection needs.

2.6.2 Has the ecological research been so designed as to support the process of learning through doing in the design and execution of the project?

There are initial attempts in this direction but these initiatives can be improved e.g. feedback cycle should be enhanced;

Improvements can be undertaken so that M&E data and information are linked to the timely and effective response and adaptive system needs to be clarified and to strengthen institutional memory (data base, decision support and popularization) to sustain learning beyond project lifetime.

2.6.3 Conclusions

This innovative project has in place some of the important elements in particular, a biodiversity monitoring system generating management oriented inputs for the Protected Area Management Board, relevant to adaptive management. It would now be worthwhile taking the next step and put in place carefully thought out mechanisms to consciously implement adaptive management.

SCHEDULE OF ACTIVITIES AND NOTES

An initial informal get together for dinner was arranged on 28th January 2001 between Madhav Gadgil (Chairman, STAP) and Claudio Volonte (WB-GEF) with Edgardo D. Gomez, Helen T. Yap, Maria Mangahas, and Porfirio M. Aliño. After dinner, a short meeting at Dr. Claudio Volonte's room at the Linden Suites provided an initial overview of how the team may work together on various aspects of the GEF study of CPPAP. Some revisions on the proposed schedules and site visit itinerary were suggested to Ms. Marie Paynor for discussion with the Philippine host institutions (DENR and NIPA).

1. Entry meeting : 29 January 2000, 0900 – 1400 hours

Venue: Conference Room, Foreign Assisted Projects Office (FASPO), Manila

In attendance:

NAME	OFFICE
1. Angelita P. Meniado	CPPAP-DENR
2. Wilbur Dee	CPPAP-NIPA Inc.
3. Maria Mangahas	UP Anthropology
4. Porfirio Aliño	UP Marine Science
5. Annette J. Menez	UP Marine Science
6. Ernie Guiyang	WB
7. Ma. Socorro Mallari	FASPO, DWRN
8. Mundita S. Lim	PAWB, DWRN
9. Pilar Llosa Bolok	DENR, FASPO
10. Rosiella Cervantes	DENR, CPPAP
11. Jury Ladisla	PAWB, DENR
12. Lourdes Ferrer	FASPO, DENR
13. Esperanza Santos	CPPAP, NIPA Inc.
14. Rafael Senga	CPPAP, PCW
15. Usec Mario S. Roño	OSEC., DENR
16. Roger Birosel	NIPA, Board Member
17. Madhav Gadgil	STAP
18. Claudio Volonte	GEF-SEC
19. Richard Anson	WB

The schedule and program for the GEF review was given and some revisions made especially in relation to the departure time for Bataan and Cebu. Adjustments were made so that the SIPLAS GEF review team would stay overnight in Cebu and that the Bataan would delay their departure towards the evening. Welcome remarks were made by the Unsecretary Roño. The TOR and review objectives for the GEF-STAP and WB-GEF were discussed.

Dr. Ernie Guiyang gave an initial background of the various WB reviews and some issues and concerns relating to institutional concerns like the IPRA and the NIPAS laws and their respective institutional mandates, the concerns of the project disbursement on the livelihood components, their targets and how these are to be linked with biodiversity conservation.

Mr. Wilbur Dee provided an overview of the project framework and its components. Some historical background on some of the constraints being experienced by the relationship of the project implementation was also shared. This related to some shortcomings in the earlier administrative arrangements between WB and the implementing agencies, e.g. the absence of WB-Philippine office and other adjustments needed to facilitate better operational activities between WB, NIPA and DENR.

Mr. Roger Birosel also pointed out the NIPA boards question on the reduction of \$ 2M from the livelihood monies.

The group adjourned at around 2.00 pm so that arrangements could be made for the GEF review team meeting at the World Bank – Philippine Office at the Ortigas Center, Pasig.

Background materials distributed were:

WB Office Memorandum addressed to Gregorio Magdaraog, 21 November 1997;
WB Office Memorandum to Geoffrey B. Fox from Richard Anson, 30 June 2000;
WB Office Memorandum to Mark Wilson, from Richard Anson, 28 December 2000;
Letter of Mr. Gregorio Ll. Magdaraog on the livelihood projects beyond P3 M (relating to Subic Bay Marine Exploratorium [SBME]), Apo Reef Conservancy, Inc. and the Bataan Bulk Water Company (BBWC).

2. Meeting at the World Bank-Philippine Office, 29 January 2000, ~1600-1735 hours

Present:

1. Ernie Guiyang (World Bank-Philippines)
2. Richard Anson part of the time
3. Claudio Volonte
4. Madhav Gadgil
5. John Hough, UNDP-GEF
6. Maria Mangahas
7. Porfirio M. Aliño

Dr. John Hough of the UNDP-GEF was briefed on what transpired in the earlier meeting at the DENR. He was also briefed by Madhav Gadgil and Claudio Volonte on each of the respective objectives of their reviews. A reiteration of the tasks for each group was made where Claudio, Ernie and Maria would be visiting the Subic Bataan Natural Park and Mt. Kanlaon Natural Park and Madhav, John and Perry would visit the Siargao Protected Landscape and Seascape.

The management plans of these areas were distributed.

Angie Mediano, Odette, John Hough, Mahdav Gadgil, Porfirio M. Aliño depart for Cebu ~ 1945 – 2100 (as transit point for Surigao); Layover at the Waterfront Hotel, Cebu City.

30 January 2000 (Tuesday)

*Travel from Cebu City to Surigao City (0830 – 1300) vis SuperCat
and then Siargao Island Protected Landscape and Seascape (SIPLAS) (Arrival ~1630)*

Angie Mediano, Odette, Madhav Gadgil, John Hough, Perry Aliño joined by Roger Birosel and Dodoy (Mr. Rolando Soncuya, Treasurer of NIPA) at the Cebu Pier.

Aboard the Supercat Mr. Madhav Gadgil made a short briefing for the group on the STAP – terms of reference (TOR).

Upon arrival the group was met by Coree Alvarez (PCU) and Dwight Zaballa (Surigao Economic Development Foundation [SEDF], host NGO Community Organizing CO-supervisor) and Mr. Leonel Santos, President of SEDF.

At Dapa, Siargao Island, the group met at the PASU office and had a short meeting with PASU/CENRO Mr. Crisanto Estabillo

Notes on the meeting:

- Briefing of the group on PASU staff composition and PAMB relationship with PASU
- Introductions of the group to the PASU staff

After the PASU meeting the group proceeded to a community livelihood project site (mudcrab fattening in a mangrove reforestation site, Sitio Pangí).

3. Mudcrab Fattening Project

SAMAHANG BANTAY BAKHAW WG SITIO PANGI (SABABASIPA)
SITIO PANGI, ANTIPOLLO, DELCARMEN, SURLGAO DEL NORTE

In attendance :

1. Roman	Cariaga	President
2. Gertrudes	Sulapas	Vice – President
3. Carmelito	Gonzales	Secretary
4. Dulcesima	Galgo	Treasurer
5. Mateldi	Ticmon	Auditor
6. Roberto	Elopre	PIO
7. Hertelito	Galavia	Member
8. Antonio	Teraytay	Peace Officer
9. Adriano	Morales	Member
10. Bonifacio	Gultian	Member
11. Santi	Bausing	Member
12. Rosaleo	Lanzon	Member
13. Gil	Sulapas	PIO
14. Marissa	Cabigon	Member

The PO (Samahan ng Bantay Bakaw sa Sitio Pangí [SaBaBaSiPa], ~ Association of Mangrove Guards of Sitio [community] Pangí) was introduced and were briefed about the GEF review team’s visit objectives. Though they were familiar on how to raise the mudcrabs [*Scylla serrata*], there seems to be a need to enhance their capabilities on the monitoring and evaluation of their livelihood initiative (e.g. in terms of the performance of the crabs and the interaction of their

livelihood activities to biodiversity conservation, i.e. mangrove reforestation and enhancement of habitat to show more fish abundance and diverse associated assemblage). The group had also asked the assistance of the Department of Agriculture – Bureau of Fisheries and Aquatic Resources (DA-BFAR). They were trained by DA-BFAR and had an exposure trip to the Southeast Asian Fisheries Development Center (SEAFDEC) in Iloilo, Western Visayas.

The group proceeded to General Luna to check-in at the Cabuntog resort (arrival ~ 7:30 pm) and have dinner. Entry conference was initiated at around 9:00pm and discussion was made regarding the SIPLAS community organizing and community development initiatives, livelihood programs and bio-monitoring system etc.

A Volunteer Service Organization (VSO) Korean volunteer talked about the Marine Fish Sanctuaries that he assisted in establishing. This initiative is also in collaboration with another WB and Dept. of Finance Project on Coastal Resource Management (CRMP).

It was noted that it is important that the BMS should not only be designed to be doable in a participatory manner but that the information should be linked to a management response and feedback cycle. Since the BMS has only been recently put in place, it is not very clear for the community and the host NGO, how the M&E information is linked to adaptive management mechanisms. Areas of opportunity can be seen in the participatory BMS techniques wherein activity calendars and resource maps are elicited from the PO and Focus Discussion Groups (FDG). The problems and issues in the area have also been pointed out, such as delays in release of funds and the generation of maps for the site management plans. In addition, the limitations of the PASU, host NGOs (PIU) and PAMB's in financial and technical capabilities (e.g. taxonomic skills and reference materials) have also been raised.

Additional resource materials distributed in the evening entry meeting:
CPPAP – SIPLAS 2000 Highlights of Accomplishments; SIPLAS PROFILE

31 January 2001, Cabuntog Beach Resort, General Luna

At around 9 – 10 am.

Since the meeting with PAMB execom was delayed, some discussion was initiated with Ms. Coree Alvarez and Pie (PASU Staff) relating to the S&T communities' role in SIPLAS. Both opined that additional support by the S&T community would truly enhance the capabilities of SIPLAS. Unfortunately, there are no local tertiary institutions in Siargao or even in Surigao Province which they deem can provide sufficient technical support. It was also mentioned though that IEC and BMS training have been initiated with the local schools in Siargao but only in a one week period of the year, i.e. Science and Environment week.

Aliño suggested that perhaps a local regional and national S&T network could be organized for SIPLAS and even other protected areas in the country. They were very keen to explore this further and we set further meetings in Manila to pursue this concern.

Meeting with PAMB Execom (10:08 am)

4. General Luna : PAMB-1

January 31, 2001

NAME	ADDRESS	POSITION
1. For. Crisanto E. Estabillo	CENRO, DAPA, SDN	CENRO/ PASU
2. For. Celsa G. Espaderd	CENRO, DAPA, SDN	EMS-II/ Asst. PASU Chief EMS
3. For. Virginia C. Ubilas	PASU Office, DEL CARMEN SDN	Forester III
4. For. Bebie Emmanuel C. Flores	- do-	Ecosystems Mgt. Specialist (EMS)-I (Presentation on BMS Terrestrial)
5. Milafe T. Salimbangon	-do-	Ecosystems Mgt. Specialist (EMS)-I (Presentation on BMS Marine)
6. Dwight F. Zabala	Surigao Economic Dev't Found., Ortiz St., Surigao City	Project Coordinator
7. Vivencio D. Apatan	-do-	Community Organizing Supervisor (Presentation on CRMP process)
8. Herminio G. Garcia	-do-	Livelihood Officer (Presentation on Livelihood)
9. Inocencio M. Constante	-do-	Livelihood Asst.
10. Benitd D. Comon	-do-	Resource Mgt. Specialist
11. Jessie F. Roculas	-do-	Community Organizer
12. Victorio E. Navales, Jr.	-do-	-do-
13. Marcelitd C. Sulapas	-do-	-do-
14. Airen I. Sindy	-do-	-do-
15. Ailyn M. Orejas	-do-	-do-
16. Felix B. Conales	-do-	-do-
17. Jong Yong Park	Marine Biologist	VSO Volunteer
18. Domingo P. Iligan	SEDF	Executive Director
19. Edito Bosito	-do-	Utility/ Driver
20. Renante C. Lauras	Del Carmen, SDN	President - Del Carmen Samahan NG Malilit NA Mangingisda (Delcasamama)
21. Rodrigo C. Eliot	Paku, Gen. Luna, SDN	President – Dakh Environmental

22. Paquito P. Bato	Mahayahay, Del Carmen, SDN	Enthusiast Protectors Auditor-Mahayahay (Deep), Farmers Asso. (MAFA)
23. Hon. Cecilia L. Rusillon	Gen. Luna, SDN	Mayor
24. Carmelito E. Gonzales	Pangi, Antipold, Del Carmen	Secretary-Samahan NG Bantay Bakhaw Sitio Rangi (SABA- BASIPA)
25. Peoro N. Condolon	DAPA, SDN	Municipal Agrarian Reform Officer (MARO)

5. PAMB-2 : January 31, 2001

NAME	ADDRESS	POSITION
1. Antonio J. Aoapon	DAPA, SDN	Municipal Planning Dev't Coordinator
2. Angie Mediodo	CPPAP-DENR	Project Co-director
3. Lourdes Ferrer	FASPO-DENR	
4. Coree Alvarez	CPPAP-PCU	Project Officer
5. Rolando Sancuya Treasurer	NIPA	Board Member,
6. Roger Birisel	NIPA	Board Secretary

Briefing with PAMB on the review committees objectives

Each of those present had some short background about their role in the PAMB.

Important to note were the PO representatives comment about the effect of their increased environmental awareness and how they have stopped doing illegal and destructive activities (e.g. blast fishing). The former Mayor of GL (General Luna) said that it was also important that strict enforcement was undertaken (e.g. have 50 caliber machinegun mounted on a patrol boat). He also challenged the Marine Science Institute to figure out a way that they may be able to support Siargao (e.g. deploy a marine biologist) in identifying priority fish sanctuaries in the area and improving their monitoring and regulatory activities. They also, reiterated their pride as not only the surfing capital in the Philippines but also of its international reputation. In addition to surfing, the caves and marine lakes in Socorro have also been pointed out. The concern of how to resolve the user fees and sharing of benefits from the Sohotan Caves have also been highlighted. It seems the handling of Ecotourism and Biodiversity conservation has not yet fully been fleshed out. Enlightened S&T inputs (which includes the participation and active involvement of the community) in this regard surely would help. Strategically linking the goals of ecotourism and biodiversity conservation can go a long way towards the sustainability of management and biodiversity conservation.

After a quick lunch, the group proceeded to del Carmen where the SEDF holds office. Additional source materials were given: Biological Prospecting leaflet; Two introductory CPPAP primers for SIPLAS and SIPLAS Terrestrial BMS results for 2000; Marine reserve map and guidelines

with financial plan of Maribojoc Fish Sanctuary. At around 3:00 the group proceeded on two small pumpboats to San Benito (Maribojoc) Marine Sanctuary.

6. On the way Madhav and Perry interviewed Renante (a fishers organization leader from del Carmen). He recounted that before he used to be a cutter (mangrove cutter for firewood) and that his parents fished and also cut mangroves. He said that he observed that with more people cutting the mangrove trees, there were more incidence of crocodile attacks around del Carmen. They think that either the people are competing with the crocodiles for fish or there are just more incidence with more people in the area. He said that the PO have facilitated in mapping the areas where the crocodiles live among the mangrove areas in del Carmen. Upon arrival at the Marine Fish Sanctuary, the village council and the PO welcomed us and briefed us about why they wanted to establish the sanctuary.

7. Marine Sanctuary : January 31, 2000, 1600 hours

BARANGAY and MCCEPA (PO) Officials Maribojoc, Son Benito, Surigao del Norte

In attendance :

1. Helen C. Toldo	Barangay Captian/ MCCEPA BOD
2. Elvirita C. Lito	Barangay Council/ MCCEPA President
3. Jocelyn Billona	Barangay Treasurer/ MCCEPA BOD
4. Jaime Rivag	Barangay Council/ MCCEPa BOD
5. Orencio Sulapas	MCCEPA BOD
6. Edwin Riyas	MCCEPA Member
7. Juvy Rivas	Barangay Secretary
8. Rosita Sulapar	MCCEPA Member
9. Yayang Riuas	-do-
10. Alfredo Espiel	-do-
11. Santos Miranday	Barangay Council/ MCCEPA Member
12. Dailinda Bual	-do-
13. Marivic Bual	-do-
14. Wenceslao Comandante	-do-

Municipal LGH of San Benito
(San Benito, Surigao del norte)

1. Hon. Eunito Pacador	Vice Mayor
2. Rustica Roculas	Municipal Budget Officer
	Municipal Tourism Officer (Designate)
3. Bebie Sulapas	
4. Ninong Sulapas	

MCCEPA – Maribojoc Concerned Citizens for Environmental Protection Association
LGU – Local Government Unit

Airen I. Sindy
Community Organizer
IPAS – CPPAP, SIPLAS
Del Carmen, Surigao del norte

The PO officers (who were mostly women) said that they were encouraged after two of their members recounted their experience from an exposure trip to Apo Island, Negros Oriental which was facilitated by SEDF. Mr. Hung Park the Korean VSO volunteer said that he assisted in the mapping of the Sanctuary and together with PO they agreed on the sanctuaries' boundaries. San Benito municipality have initially drafted a resolution to establish the Marine Sanctuary through a municipal ordinance, with the sanctuary's management guidelines proposed by the PO. They perceive that despite only 8 months after the sanctuary establishment, they seem to observe and catch more fish adjacent the no-take sanctuary area (i.e. near the guardhouse). They are also encouraged to do this because other livelihood opportunities (e.g. seaweed culture of "guso" *Kappaphycus alvarezii* or *Eucheuma* spp.) can be availed through the project. They have also a system of keeping track of their accounts and the performance of their seaweed pilot farms. They also recounted that even pilot tested which areas seemed to have better growth and survival for the seaweed. Although they narrated their knowledge of when they perceive the fish spawn and where, this has not been well utilized into the planning and management of the marine sanctuary. Since the seaweed culture was introduced to the area by the DA-BFAR people, they have not been able to elicit the optimization of the fishers practical knowledge of the area. In the case of San Benito, most (if not all) of the people (~900) are fishers or engaged in fishing related activities (e.g. women market the fish). The PO treated the group with sumptuous "snack" of grilled fish and boiled crabs, rice, Coke and Tanduay Rhum. At around 6:00 pm we headed back for del Carmen under a pale quarter moon. We took a "short cut" route through shallow mangrove stands and for while we though we'd get lost and would have a long night in crocodile home waters. After around an hour of boat ride we saw a shimmer of lights in the coastal horizon and were relieved that we headed in the right direction.

We arrived at the resort at around 9:00 pm and had dinner. After a sleepy discussion and exit meeting we finished at around 11:30 pm. Much of the meeting was to primarily to thank our hosts and to summarize the main lessons we perceived can be drawn from the visit. These were mainly in the areas of: 1) how to enhance the linkage between ecotourism and biodiversity conservation; 2) how to improve BMS and its links to management responses; 3) how to enhance the capabilities of the various stakeholders including the PAMBs, PASUs and the host NGOs; and 4) how to facilitate the learning process and draw lessons from the activities based on how effectively these have reached the objectives and goals; and 5) how people perceived what the issues and problems are and how to deal with these in an adaptive management approach.

On Feb. 1, the group headed via a pumpboat for Surigao (6:00 am) and from Surigao proceeded by land to Butuan City, Agusan Province. At Butuan City, the group had a short courtesy call at the regional DENR office (1130 – 1230) and left for Manila at 1:30 pm.

8. February 1, 1600 hours :

MG : Visit to CPPA Project Co-ordination Unit office and to World Bank Technical Assistance to Biodiversity Conservation – Philippines office : Discussed BMS activities with Dr. Arne Erik Jensen.

9. Visit to Subic-Bataan National Park (BNP) 30 January, 2001.

[**C. Volonte, E. Guiang (of the WB) and M. Mangahas traveled to Subic by car in the evening of 29 January, stayed over at the Subic International Hotel, and drove to the BNP PASu Office in Abucay, Bataan early in the morning of 30 January. At the PASu office we met initially the

PASu Superintendent and PCU staff, the COs, the RED, the PENRO, and some other PAMB members. Project coordinator R. Dacanay and others of the host-NGO Bataan NGO Consortium arrived later in the morning. At around 11 am. M.Mangahas and E. Guiang and the COs went to the nearby Aeta Settlement and met with the Brgy. Captain, the tribal chieftainess, members of a CBFPB (Community-Based Forest Protection Brigade), and several other Aeta residents. Then in the afternoon with C. Volonte and the PASu staff and other visitors we traveled by car to the BNP Ranger Station/Nature Center in Tala, Orani, Bataan which is the starting point for trekkers hiking to the peak of Mt. Natib and met with barangay officials and members of the local PO, who are migrants engaged in coffee growing. The team returned to Manila after 5 pm.]

Subic-Bataan National Park (BNP)

The Subic-Bataan Natural Park (BNP) replaced the Mindoro site (Agilit Baco) where the local communities had declined to join the integrated protected areas program (see Wiens p.106-7). The BNP merged two natural parks (Subic and Bataan), and it covers 7 municipalities. The population is dominated by migrants and out of the 25 barangays only five have indigenous peoples (Aetas). Only 1 of the barangay captains is an IP, while there are 5 'tribal chieftains'. A section of the park and adjoining areas are designated Aeta reservations.

The site has been reviewed before as greatly disappointing Aetas who have actively participated in the implementation of the project, in particular their frustration with the delay in release of livelihood funds (Rovillos 2000). The livelihood projects that have already been initiated in the BNP include projects for watershed rehabilitation and demo farms for contour brushing and SALT technology. For various reasons, so far no livelihood projects are given to the 'kulots' (curly-haired) or Aeta IPs. The Aetas today have more or less given up the nomadic life and are settled in specific barangays. They make a living from cutting *buho*, a species of bamboo, and farming, but they also complained (during our site visit) that many areas where they used to farm, and trees that they had planted, have been taken over by absentee lowlanders. Many of the lands in the multi-use zone are communally held but are to be divided up for individuals to own. The local communities are not as yet aware of the zones and the management plan for the park which has still be to presented to them for validation and which is open for possible modification (in terms of the zones).

The BNP is seen to have been through an especially long 'learning process' (Dacanay 2001). It took a long time to finalize planning tools and frameworks, operating procedures, systems and policies. From the point of view of the host NGO, a heavy-handed NIPA board reviewed and made changes in BNC's work and financial plans using a generic approach. The difficulty in coordination between and among implementors BNC, PCU and NIPA is related to their each having their own sets of frameworks and principles. Aside from this there are apparent gaps in coordination, communication, and involvement of different stakeholders. Some of these we remarked on during the site visit.

The PASu Office is located in the BNP beside the Bataan National State College. This academic institution awards certificates in Forestry and Agriculture, and its faculty also reside within the Park. It would seem to be a convenient local source of technical expertise for the PA, however the State College has no role in the PA. There are also apparent tensions between the College and the local community. The Aetas who were once settled at the site of the State College claim that when they were relocated they were assured that their children would be allowed to study at the high school and college for free. However, the document on which this agreement is said to have been delineated is now misplaced and so Aetas have not been able to avail of the promised free schooling.

Also absent in the PAMB are members of the private sector. Highly interested resource users include the PNOC (Philippine National Oil Co.) and bottled water companies. At one point the host NGO had also asked the Land Bank to sit in the PAMB but it turned out that this would be against the NIPAS Act. The NIPAS Act is silent on the participation of some stakeholders. With the commercially developed Subic Bay Area nearby, it is apparent that in this site the private sector has much potential for providing financial resources and can contribute substantially to the operations of the protected area. The Subic Bay Marine Exploratorium, one of the projects partially supported by the CPPAP has already commenced setting up, but there is controversy as to how this will link up directly to conservation and protection, and also how profits are to be shared with local communities. Much of the orientation of park managers is toward Subic. Thus far the PAMB has passed a resolution banning the hunting of bats which are a tourist attraction in Subic but which feed in the Bataan side of the park. Holders of TEKW are not formally part of the PAMB, (but they are informally identified locally; it was observed that generally the Aetas 'know how to catch things' better as compared with the *unat*).

Members of the local community have been participating in Community-Based Forest Protection Brigades or CBFPBs that are also at the same time PO/Beneficiaries for livelihood grants. Some POs had existed even before the CPPAP. The CBFPBs joined together the IPs and the tenured migrants. Thus far, 105 forest protectors have been deputized in the Park. These comprise five volunteers per barangay aged 18 + plus the Barangay Police or Tanod who together make up CBFPBs. Members of the barangay council, the religious sector, farmers, women, youth are represented in the Brigades. Most of these deputized foresters are also conducting the quarterly BMS or biodiversity monitoring survey. According to them the BMS raised issues in protection, and since they began patrolling there have been no increases in documented illegal activities. However radios are needed so they can quickly report illegal activities such as logging.

Dacanay, Randolph (Project Coordinator for CPPAP, Bataan NGO Consortium). 2001. The Call of Bataan: CPPAP should look back to where it's been to chart better where it's going. *PA Monitor*. Special Issue 02/2001

Rovillos, Raymundo D. 2000. The World Bank Policy on Indigenous Peoples: The Conservation of Priority Protected Areas System Project (CPPAP) in Bataan, Philippines. (With Aida Cadiogan and Wilfredo Alangui, Tebteba Foundation, Inc. [Indigenous Peoples International Center for Policy Research and Education]) Discussion Document at the *Workshop on Indigenous Peoples, Forests and the World Bank: Policies and Practice*, 9-10 May 2000, Washington, D.C.. Forest Peoples Programme, Bank Information Centre

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10. Visit to the Mt. Kanlaon Natural Park (MKNP) 31 January 2001.

C. Volonte, M. Mangahas, R. Senga (PCU), Rochelle (PCU), and Soc (FASPO-DENR) took the 5 am flight to Bacolod on 31 January. We checked into local hotels before traveling to the MKNP PASu Office at Calapnagan, La Castellana. There we had a discussion with the PAMB and PIU-RED, PASu, development officers of the municipal and provincial governments, the barangay captain. After the meeting we also met with members of the KGB--Kanlaon Green Brigade, after lunch we walked to the site of a honey livelihood project and met with members of the PO, then rode to sitio Fabrica where we met with other leaders and members of two other PO's (SOFPAD and MEA). We returned to Bacolod by 7 pm. At 6:30 am on 1 February we traveled to

Guintubdan, La Carlota City where we met with local government officials including the Mayor and were shown their newly built facilities for promoting ecotourism. We later walked to a viewing place of the water falls and on the way were accompanied by officers of the local PO. C. Volonte and R. Senga then caught the 11.25 flight back to Manila. M. Mangahas with Rochelle and Soc visited Balay Negrense in Silay City and the Provincial Capitol Museum in the afternoon before catching the 6 pm flight back to Manila.

Ethnographic literature: Kanlaon as place of refuge. The Bukidnon.

Meeting at the PASu office:

problem of PNO. The bill not passed by congress had less 1,000 hectares and which is where primary forest are.

Meeting with the KGB: they are former loggers. They looked thin. They plant bananas and rootcrops and vegetables. Sell. Farmgate prices.

Meeting with the POs and their livelihood projects: still waiting for funds
honey and cows and bisol and bananas, banana and rootcrops plantation, (SOFPAD, MEA)

Visit to Gintubdan

Stakeholders: the mountaineers on the one hand and the mystics who usually come in droves in Holy Week in quest of medicinal barks. Both of them can be quite destructive. Case of shutting down the mountain for two years because of el nino and forest fires. Was vigorously protested by the mountaineers. Mystics came out with a newspaper ad that it should in fact be closed for 7 years. In 1996, several British and Belgian climbers were killed when the mountain gave forth some explosive materials. There are only three families involved in game-cock raising. Local place names immediate to where they are are based on the owners of the roosters. Migrated there from Panay (sa tabuk). Nobody can build a house anymore. Lgu rep spoke of making sure that the children get educated so that they will go out. Spoke with the leader of the PO. Estelosa, Salomon, engaged in selling of plants. Not everyone is a member of the PO. Leaders of the PO are also leaders of the purok. Tourism projects and the involvement of the LGU.

11. The Siargao group met with the group who went to Kanlaon at Linden Suites (at around 7:00pm). The group had a short assessment where Claudio facilitated and served for which as the informal rapporteur. It was agreed that he would prepare an initial draft of the wrap-up report and that the group would add on our comments during the discussions.

12. Exit Meeting : 2 February 2001, DENR – FASPO Conference Room, 9:00 am

Aside from the GEF team, John, Madhav, Claudio, Maria, Ernie, & Perry, together PCU people (Wilbur and Angie) and Raffy Senga and Coree Alvarez, Mundita Lim (PAWB- Asst. Director), Usec Roño, NIPA board members (Roger Birosel) and NIPA board chair Karen Tañada; NORDECO Danny Balete and Virgilio Palaganas.

Some of the observations that Claudio pointed out were the concern on how to assure sustainability and how to enhance the capability of the project to optimize not only the project's financial resources but also to achieve the goals of the project. It was also important to explore how to improve the enabling environment where the good partnerships on-site have been in place.

Discussions on the IPRA and NIPAS act were again noted. Also, it was explored how to strengthen the DENR capabilities, e.g. how to use tenure and access arrangements that are adapted towards livelihood and sustained resource utilization which can be consistent with protection and conservation. Capability building efforts also need to be done in coordinating the PAMB through the PASU especially how to share benefits and leverage finances for the Integrated Protected Area Fund (IPAF).

Mechanisms can be explored on how to share outlooks, visions together (e.g. the DENR and the NIPA) despite the personal linkages between the two, the institutionalization of a way of doing things together for these partnerships to achieve a more effective process in achieving conservation and sustainable development. Next steps could be to see whether a no-cost extension can still be explored or whether a phase II is a more effective option. It was reiterated that the S&T community is also an important component to increase the likelihood of success, especially in learning the lessons from the project and facilitating an adaptive management approach in biodiversity conservation.

The meeting adjourned at 1:30 pm

13. Minutes of the CPPAP Meeting at MSI to discuss the CPPAP and the role of the S&T community (February 2, 2001): Background material was distributed relating to the monitoring of marine sanctuaries with the involvement of fisher's groups (Uychiaoco et al. 1998) and a metaanalysis of various MPAs in the world (Uychiaoco and Aliño, manuscript in prep.).

The meeting started at 2:20 PM. It was attended by the following people from various sectors:

Name	Office
Carmelita Villamor	ERDB
Bibiano Raves	ERDB
Maria Mangahas	UP- Anthropology
Nestor T. Castro	UP-Anthropology
Helen T. Yap	UP-MSI
Pamela Palma	CPPAP-PCU
Coree Alvares	CPPAP-PCU
Rafael G. Senga	CPPAP-PCU
Danilo S. Balete	NORDECO WB-TABC
Porfirio Aliño	UPMSI
Roger Borosel	ESM/NIPA
Angel Alcala	SU
Wilfredo Licuanan	DLSU
Madhav Gadgil	GEF
Perry S. Ong	UP-IB/CI-Philippines
Ver Palaganas	NORDECO/TABC
Norma M. Molinyawe	PAWB
Janette L. Garcia	PAWB

.. and assisted by Marilou Sison (rapporteur), Andre Uychiaoco (logistics) and Hazel Arceo.

The meeting was opened with an introductory note from Dr. Madhav Gadgil, chairman of the Global Environment Facility Science and Technology Advisory Panel. After the introduction of each member, each section of the meeting agenda was tackled.

I. Participation and Technological Community

1. Dr. Alcala has emphasized that publication of results is very good technology input and should be done by PAMB. This can be used as references by others. He wondered why the PAMB has no scientific advisers, and suggested the inclusion of a scientific group in PAMB.
2. In relation to the matter, Dr. Al Licuanan suggested that while it is good that local universities are tapped to work inside the MPAs, a national group should also be involved in complementary scientific work inside the MPAs for there to be uniformity of results especially in the area of taxonomy or identification of organisms. He also added that access to the MPA areas for scientific studies should be made available or open to these institutional scientific groups.
3. Mr. Danilo Baletes suggested that scientific findings should be translated in a way that local people could understand it.
4. Dr. Gadgil mentioned that in order to facilitate and organize effectively such information, it should be made available and accessible in electronic form.
5. Dr. Licuanan again suggested that the jurisdiction of the DENR/NGOs/PAMB and the role of the scientists should be defined. He also added that there are cases when access permits to work in the protected area is made difficult even though the management group would benefit from the information to be collected.
6. In response to Dr. Licuanan's statement, Mr. Rafael Senga of CPPAP-PCU clarified that their group is willing to engage or facilitate others' access in their project area.
7. Mr. Uychiaoco pointed out that managers should be clear on what they need when asking for technical help from the scientific group. This was seconded by Dr. Licuanan and Dr. Ong wherein both added that there is low recognition of the research community by CPPAP and that there is no active participation of scientists when designing policies for MPA management.
8. Mr. Roger Birosel, on the other hand, responded that environmental management is the work of CPPAP and that scientists should not take charge. Further, research output in MPAs should be made accessible and translated at the management level.
9. Mr. Danilo Baletes urged for the creation of scientific advisory boards at the regional level so as to lessen the dependence of services that usually comes from Manila. Dr. Alcala agreed on this creation of regional scientific advisory boards.
10. Mr. Rafael Senga said that perhaps the institutional involvement and scientific recognition issues can be brought up again in the meeting next week.

II. Deploying traditional ecological knowledge and sustainable use practices of local communities

1. On the the role of indigenous peoples (IP), Mr. Danilo Baletes stated that IPs are the best sources of information when preparing management schemes for livelihood and areas for protection as these people have traditional practices that would agree with such schemes.
2. Ms. Coree Alvares suggested that building the capacity of the local community to use and contribute to the management plans should also be taken into consideration.
3. Dr. Alcala stated that local people should be part of the management of marine reserves.
4. Mr. Danilo Balete mentioned that IPs have various traditional zonations that should be recognized when doing management plans. He also mentioned that there are more problems with the marine environment because ancestral use is not defined for the area.

5. According to his ethnographic studies, Dr. Castro found out that the PA management plans and the ancestral domain approach do not meet, and this gave rise to some conflicts in aspects of the implementation of the NIPA vis-à-vis IPRA. He also added that MPA management plan should be sensitive to cultural use.
6. Mr. Rafael Senga said that local communities are being involved in every step of the way. The management plans are popularized, translated and presented to the communities every time.
7. Dr. Gadgil requested for the possible documentation of the inclusion of traditional management practices to the overall management MPA plans so that funding can be made available to the local level in the management plan.
8. Dr. Nestor Castro said that IPs are underrepresented in the PAMB and representation is not in-line with the culture of IPs. Rather IPs favor consensus. Also, there could be a subcommittee of IPs so they could bargain better during meetings.
9. Dr. Maria Mangahas asked if there should be an advocacy group for IPs and Dr. Ong and Mr. Danilo Balete answered that things should just be facilitated for IPs.
10. On the issue of strengthening old institutions to achieve environmental objectives, Dr. Licuanan asked that the protected area management plans try to incorporate mechanisms by which NGOs and the academe can give inputs to DENR and the PAMB.
11. Dr. Gadgil answered that Dr. Mangahas should include the question of conflict of interest when putting up a project so they could devise ways on how to solve them.

III. Stakeholder behavior analysis

1. Dr. Castro was asked to think about looking into the identify of the stakeholders, their involvement and representation in the management boards and how they interacted with each other.
2. It was also noted that sometimes traditional or indigenous practices are not always compatible with biological conservation.

IV. Learning through doing

1. Dr. Gadgil asked for comments about the section.
2. Mr. Rafael Senga mentioned about participatory monitoring system and that project implementation should be brought up to the decision makers. The monitoring of project implementations needs to be evaluated also.
3. Mr. Danilo Balete suggested that feedback from PAMB should be enhanced.
4. Mr. Roger Birosel said that NIPA and DENR will manage the project reviews.
5. Dr. Aliño stated that they will tackle the redesigning of monitoring evaluations, if needed, in their upcoming meeting.

The meeting was adjourned at 4:50 PM.5 February 2001

14. NIPA Board Members Rebecca Tanada, Rosalinda Roy and Roger Birosel met John Hough, Claudio Volonte, Perry Alino and Madhav Gadgil over dinner and discussed at length the role and experiences of NIPA involvement in CPPAP.

15. February 5, 2001 : 10:00 – 12:00 Follow up meeting at UPMSI to discuss on how to enhance S&T Community Participation in Biodiversity conservation:

with Danny Balete, Raffy Senga, Coree Alvarez together with Maria Mangahas, Wilfredo Licuanan, Andre Uychiaoco and Porfirio M. Aliño.

1. The group discussed the possible reasons why there has been little participation by the S&T community in the CPPAP.
2. It has been suggested that perhaps there was a historical baggage that affected a swing from a considerable participation in the beginning to a diminished role in the implementation phase.
3. Despite the problems it was agreed that the group can initiate activities either formally or informally to enhance the interaction of this participation.
4. The venue could be through the Wildlife Conservation Society of the Philippines or through the proposed Biodiversity Conservation Information Network.
5. An initial discussion group was proposed to continue on February 23, 2001 at the PCU office where PMA can share some historical insights and other people can discuss how CPPAP and other PA management activities have been approached.

March 27, 2001

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