

# **Baseline Assessment: Management Effectiveness Tracking Tool (METT)**

Philippines Biodiversity and Watersheds Improved for Stronger Economy and Ecosystem Resilience (B+WISER)

30 January 2015

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- Fauna and Flora International (FFI)
- Haribon Foundation
- World Agroforestry Center (ICRAF)

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### Baseline Assessment: Management Effectiveness Tracking Tool (METT)

### Philippines Biodiversity and Watersheds Improved for Stronger Economy and Ecosystem Resilience (B+WISER) Program

### Implemented with:

Department of Environment and Natural Resources Other National Government Agencies Local Government Units and Agencies

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# ACRONYMS

ADSDPPAncestral DomainBDBantay DagatBFARBureau of Fisheries and Aquatic ResourcesBGBantay GubatBLETBarangay Local Government UnitBMSBiodiversity Monitoring SystemBPATBarangay Peace Keeping Action TeamCADCCertificate of Ancestral Domain ClaimCADTCertificate of Ancestral Domain TitleCCClimate ChangeCCAClimate Change AdaptationCDSComprehensive Development Cooperation StrategyCDPComprehensive Development PlanCENROCommunity Resource Management FrameworkCSOCivil society organizationsDENRDepartment of TourismDRRDisaster Risk ReductionDWCCDivine Word College of CalapanEAAFEast Asian-Australasian Flyway PartnershipELEEnvironment and Natural Resources OfficerDOMExecutive OrderEXCOMExecutive OrderExecutive OrderEscutive OrderEXCOMExecutive CommitteeFARMCFisheries and Aquatic Resources Management CouncilFFIFauna and Flora InternationalGPSGlobal Positioning SystemHHHouseholdIBInfartry BattalionIECInformation, Education and CommunicationIKSPIndigenous PeoplesIPAFIntegrated Protected Area FundIPAFIntegrated Protected Area FundIPAFIntegrated Social ForestryISUIsabela State UniversityK	A & D	Alienable and Disposable
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LCCAP Local Climate Change Action Plan		
C		•
LGU Local Government Unit		
	LGU	Local Government Unit

MANP	Mount Apo Natural Park
MBCFI	Mindoro Biodiversity Conservation Foundation, Inc.
MENRO	Municipal Environment and Natural Resources Office/r
METT	Management Effectiveness Tracking Tool
MFI	Malampaya Foundation, Inc.
MinSCAT	Mindoro State College of Agriculture and Technology
MIS	Management Information System
MLET	Multisectoral Environmental Law Enforcement Team ()
MLGU	Municipal Local Government Unit
MOA	Memorandum of Agreement
MPA	Marine Protected Area
MUZ	Multiple Use Zone
MVNP	Mayon Volcano National Park
NCIP	National Commission on Indigenous Peoples
NGA	National Government Agency
NGO	Non Government Orgnizations
NGP	National Greening Program
NIPAS	National Integrated Protected Areas System
NLNP	Naujan Lake National Park
NNNP	Northern Negros Natural Park
NSMNP	Northern Sierra Madre Natural Park
PA	Protected Area
PACBRMA	Protected Area Community Based Resource Management Agreement
PAMB	PAMB Protected Area Management Board
PAME	Protected Area Management Enhancement
PASu	Protected Area Superintendent
PAWCZMS	Protected Areas, Wildlife and Coastal Zone Management Services
PD	Presidential Decree
PDRF	Philippine Disaster Recovery Foundation
PENRO	Provincial Environmental and Natural Resources Office/r
PNP	Philippine National Police
PO	Peoples Organization
PP	Presidential Proclamation
PPP	Public-Private Partneship
PWCZMS	Protected Area Wildlife Coastal Zone and Management Services
QAW	Quinali "A" Watershed
RA	Republic Act
RED	Regional Executive Director
REECS	Resources, Environment and Economics Center for Studies
SAF	Special Action Force
SALT	Sloping Agriculture Land Technology
SAPA	Social Assessment of Protected Areas
SUA	Sustainable Use Agreements
SB	Sangguniang Bayan
SCPW	Society for the Conservation of Wetlands, Inc.
SLF	Sanitary Landfill
SMART	Spatial Monitoring and Reporting Tool
SP	Sanguniang Panalalawigan
SPZ	Strict Protection Zone
SRPAO	Survey and Registration of Protected Area Occupants
	Sustainable Development Protection Plan

SWM	Solid Waste Management
ТА	Technical Assistance
TWG	Technical Working Group
UMRBPL	Upper Marikina River Basin Protected Landscape
USAID	United States Agency for International Development
W&FP	Work and Financial Plan
WEO	Wildlife Enforcement Officer

# **EXECUTIVE SUMMARY**

The Biodiversity and Watershed Improved for Stronger Economy and Ecosystem Resilience (B+WISER) Program facilitated the conduct of the baseline Management Effectiveness Tracking Tool (METT) assessment in ten protected areas located within the seven Program sites. METT evaluates how well a protected area (PA) is being managed or protecting its values and achieving its goals and objectives.

The METT design is based on the framework that good protected area management follows a process that has six distinct stages or elements which starts with understanding first the context of existing values and threats, followed by planning and allocation of resources (inputs) and conduct of management actions (processes) to produce products and services (outputs) that eventually result in desired impacts or outcomes (Stolton et al. 2007). Weaknesses, issues and gaps in each element are identified and adaptive management actions decided upon by the local PA manager METT respondents to address them to enhance the effectiveness of management of the protected area.

The activity also covered an assessment of threats to the protected area's various biodiversity, ecological and socioeconomic and cultural values under twelve broad categories of threats in accordance with the Conservation Measures Partnership (CMP) threats hierarchy, as part of understanding the context for effective PA management.

The threats assessment shows that the PAs are experiencing various types of threats in varying degrees of seriousness. The most common high threats across the seven sites are the following 1) residential and commercial development, 2) agriculture, 3) pollution, 4) biological resource use and harm from hunting, killing and collecting terrestrial animals, gathering terrestrial non-timber plants or plant products and wood harvesting/cutting mostly for charcoal and fuelwood production, and 5) climate and weather related risks and geological events such as storms and flooding, volcanic eruption, droughts and landslides. It appeared that the most highly threatened PAs based on the number of high threat ratings they garnered are the following: Upper Marikina River Basin Protected Landscape (UMRBP), Naujan Lake National Park (NLNP), Kaliwa Watershed Forest Reserve (KWFR), and Mt. Apo Natural Park (MANP). Northern Sierra Madre Natural Park (NSMNP), Mt. Kitanglad Range Natural Park (MKRNP) with large intact forest cover and rich biodiversity and Mt. Masaraga Watershed Forest Reserve (MMWFR) with fast regenerating forest cover appeared the least threatened with no high threats identified and almost all threats rated low in significance.

The baseline management effectiveness evaluation shows that the top performing PAs are MKRNP, Mt. Kanlaon Natural Park (MKNP), and NSMNP. MANP and UMRBPL were medium performers, while the rest of the PAs: Northern Negros Natural Park (NNNP), Mt. Mayon Natural Park (MVNP), MMWFR, NLNP and KWFR registered low baseline performance based on the indicative level of management effectiveness categorization set by B+WISER.

The ten sites generally scored well in terms of context (legal basis) and in planning elements of management effectiveness. Among the sub-elements of planning, the planning for adjacent land and water use appeared the weakest, as the PA plan has not been integrated with the development plan of most of the LGUs and the plan of other land and water users along the boundaries of the PA. The PAs mostly underperformed in terms of inputs, which means the resources and activities

needed to implement the management plan are mostly deficient or missing. Law enforcement capability appeared weak in all sites, except for MKRNP. The PAs have also generally underperformed in terms of the process element, which includes PA boundary delineation and demarcation, protection systems, research, resource management, equipment maintenance, budget management, education and awareness, indigenous peoples, and monitoring and evaluation as criteria for evaluation. All PAs also generally undeperformed in terms of the elements of outputs and outcomes, an observation which seems to reflect the generally low scores in inputs or the resources available as well as the process required for effective management. Low rating in outcomes element means the PA is weak in terms of providing economic benefits for local communities as well as in maintaining or improving its biological, ecological, economic and socio-cultural values, which are the two criteria assessed under this element.

The training needs assessment (TNA) conducted revealed the areas where the PA managers (Protected Area Management Board or PAMB, Protected Area Superintended or PASU, PA staff) need training assistance to improve their competence in PA management. Some of the key training needs are: biodiversity assessment, conservation financing, climate change vulnerability assessment, environmental impact assessment, conflict management, and development of sustainable livelihood/enterprises.

The key informant interviews conducted provided supplemental information that helped deepen/enhanced understanding of the issues, challenges and constraints that each PA and the women and IP members of the PAMB are facing, including the identification of possible solutions.

Based on the assessment results, the following are recommended for B+WISER interventions:

- 1) Conduct a follow on meeting with the PAMB Technical Working Group (TWG) or PAMB ExeCom, if not the PAMB en banc to revisit the METT action plans produced to further prioritize (and formally approve) them, particularly in view of new developments on the site and new information from various technical assessments conducted by B+WISER. The strategic menu of cost-effective actions that would result in multiple and greater impacts and that which are aligned with Program deliverables and Theory of Change (TOC) should be prioritized for B+WISER assistance in each of the PA sites. These would include the: a) establishment of the Integrated Protected Areas Fund (IPAF) in sites that still do not have this fund (e.g., KWFR, NLNP, MMWFR), assistance in accessing IPAF, and revenue generation through Payment for Ecosystem Services (PES) and other mechanisms to enhance the availability of funding for the PAs, b) strengthening environmental law enforcement, including the formulation of support PAMB regulations and LGU support ordinances to address threats to the PA c) forest restoration activities, d) strengthening the PAMB as a management and governing body, and improving its external linkages, including partnership with the private sector, e.g., tapping their corporate social responsibility program, and increasing collaboration and partnership with local communities and tenure holders, e) biodiversity monitoring (SMART and LAWIN) linked to law enforcement, f) PA plan updating/enhancement and integration with local development and land use plans, and g) IEC and biodiversity campaign support.
- 2) Closely monitor the status of implementation of the METT action plan in all ten PAs.

- Design and implement training activities based on the results of the TNA and link training prioritization with closely related program deliverables such as increased economic benefits and enhanced ecosystems resilience.
- 4) Document and share best practices in PA management including on how key issues like massive in-migration and PA encroachment, illegal structures, environmental law enforcement, and PES are addressed and promote cross-learning among the ten PA site or expose them to other PAs in other regions that are performing well.
- 5) Share METT assessment results with DENR, including the national policy and action implications and recommendations from these results.

## **1. INTRODUCTION**

The Philippines Biodiversity and Watersheds Improved for Stronger Economy and Ecosystem Resilience (B+WISER) Program broadly contributes to the Government of the Philippines (GPH)-U.S. Partnership for Growth (PFG) and United States Agency for International Development (USAID) Country Development Cooperation Strategy (CDCS) for the Philippines by focusing on inclusive and broad-based economic growth and sustainable ecosystem services.

The B+WISER Program prioritizes four intermediate results (IR) to improve natural resources and environmental services that complement and support the GPH in implementing environmental policies and programs and complement the CDCS development objective three: Environmental resilience improved. These IRs include: Conservation of biodiversity in forest areas; Reduction of forest degradation in priority watersheds; Enhanced capacity to conserve biodiversity, manage forests, and monitor low emissions development; and, increased capacity for disaster management in highly vulnerable areas.

To support the achievement of above results, B+WISER seeks to improve the management and governance capacity of local management institutions. In the case of the ten protected areas (PA) situated within the seven Program sites, this involves building the management effectiveness of the local PA managers- the Protected Area Management Board (PAMB)<sup>1</sup> and the Protected Area Superintendent (PASU) and other PA staff. Management effectiveness is a measure of how well the protected area is being managed or the extent to which it is protecting values and achieving goals and objectives (Hockings et al., 2006). Improving management effectiveness, therefore, will help the local PA managers address/reduce threats to forest and biodiversity within the PAs to promote ecosystems resilience, which in turn will help sustain the ecosystems services ecosystems provide, in line with +WISER objectives.

B+WISER has adopted with some enhancements the Management Effectiveness Tracking Tool (METT)<sup>2</sup> recommended by the Biodiversity Management Bureau (BMB) to be used as a tool for measuring the progress toward improving the management effectiveness of the ten PAs. Measurement will gauge Program progress in relation to Performance Indicator 9a (increases in METT scores of PA). Serving the function of both a score card and an adaptive management tool, the conduct of METT will enable the local PA managers identify the strength and weaknesses in their management effectiveness as a basis for identifying adaptive management

<sup>&</sup>lt;sup>1</sup> Based on Sec. 12.1.1-12.18 of the NIPAS Act, the PAMB shall decide the allocations for budget, approve proposals for funding, and decide matters relating to planning, peripheral protection and general administration of the area in accordance with the general management strategy (NIPAS Act, sec 11). The revised NIPAS Act Implementing Rules and Regulations (IRR) provides eight functions of the PAMB (Sec.12.1.1-12.1.8, DAO 2008-26). The PASU is accountable for the implementation of the Management Plan and operations of the protected area (Sec. 11.7) and leads the day-to-day management, protection, and administration of the PA (sec 11.8 of DAO 2008-26). The duties and responsibilities of the PASU are found in Section 1 1.7.1- 11.7.11.

<sup>&</sup>lt;sup>2</sup>The METT tool was originally designed by the World Bank and the World Wildlife Fund (WWF) Alliance for Forest Conservation and Sustainable Use based on a framework set by the World Commission on Protected Areas (WCPA) for assessing and harmonising the assessment of management effectiveness of both protected areas and protected area systems around the world. The BMB has adopted and enhanced this tool for use by PAMBs. The Protected Area Management Effectiveness Project (PAME) and the NEWCAPP Project have used this tool to measure the performance of more than 70 PAs across the country.

actions to improve their performance. An increase in the METT score will mean the PA is being more effectively managed and therefore achieving its goals and objectives.

This report discusses salient findings from the baseline METT and two supplementary surveys: rapid learning needs assessment (RLNA) and key informants interview (KII). It also provides recommendations for B+WISER interventions going forward.

# 2. THE METT QUESTIONNAIRE AND METHOD<sup>3</sup>

### 2.1 OVERVIEW OF THE QUESTIONNAIRES AND METHOD

The METT design is based on the framework that good protected area management follows a process that has six distinct stages or elements which starts with understanding first the context of existing values and threats, followed by planning and allocation of resources (inputs) and conduct of management actions (processes) to produce products and services (outputs) that eventually result in desired impacts or outcomes (Stolton et al. 2007). Weaknesses, issues and gaps in each element are identified and adaptive management actions decided upon by the local PA manager METT respondents to address them to enhance the effectiveness of management of the protected area.

The METT questionnaire has three parts: 1) Data Sheet 1 which asks key information about the PA, 2) Protected Area Data Sheet 2 which is the threats assessment part, and 3) Assessment Form which is the main form for assessing management effectiveness. The whole process consists of a preparatory phase, assessment proper during which the questionnaire is administered by a team of facilitators from B+WISER, and post-assessment, which includes analysis, report writing and action planning.

The core participants are the members of the Protected Area Management Board (PAMB) and the protected area staff, including the PASU. A quorum (50% + 1 of the members are present) is required. Additional persons (e.g., representatives of research institutions and technical experts) who have working knowledge of the PA may be invited to participate. Total of 271 participants took part in the METT orientation and baseline assessment workshops in the program sites, NSMNP (37), NLNP (27), KWFR (19), UMRBPL (28), NNNP (21), MKNP (34), QAW (36), MKRNP (34) and MANP (35) as presented in Annex 1.

Conduct of Key Informant Interviews (KII) the results of which are presented in Section 4.5 provides supplemental information and insights. The KII questionnaire is also presented as Annex 3. Supporting documents such as the PA management plan, financial and technical reports, maps, are collected, reviewed and made available during the assessment to serve as references for the participants.

The assessment proper is a two-day activity. The first day program includes a brief update on the PA by the PAMB Chair or Protected Area Superintended (PASu). The presentation covers key information about the PA, its legal status, accomplishments vis-à-vis the management plan and program, funding, issues and gaps. The purpose is to enable the participants have uniform information about the PA which can help provide a more solid basis for their individual assessment of its management effectiveness. B+WISER then conducts a detailed orientation/ leveling off on the METT in order for the participants to have a common understanding of the purpose, questions and indicators, rating system, and procedure of the METT. This also aims to train them on the application of the METT so that in the future they themselves will be wholly

<sup>&</sup>lt;sup>3</sup> Prepared by Dr. Maria ZitaToribio, Policy and Governance Specialist, BWISER; Ms. Joyce Molina, Planning and Development Associate, BWISER and Ms. Desiree Donceras, Program Associate, BWISER

responsible for its conduct. After the conduct of these preliminaries the actual conduct of METT begins.

The following is the basic procedure in the METT assessment proper implemented by B+WISER:

- 1. The PASu and other PA staff are asked to answer Data Sheet 1. Data Sheet 2 (Threats Assessment) is administered on the first day and the Assessment Form on the second day.
- 2. For both assessments, the facilitator reads and thoroughly explains each question one by one and makes sure that the participants clearly understood the question and the basis for providing the assessment rating before they are asked to provide their answer.
- 3. The facilitator also calls resource persons and key informants knowledgeable about the topic being assessed to share key information useful for the assessment. Since the rating is individual and not consensus- based, the participants are reminded not to be influenced by the assessment or viewpoint of others but to carefully weigh what accurate rating to give.
- 4. The participants are then asked to write down their individual rating on a sheet of paper bearing their assigned participant number which is immediately collected for encoding in an excel database prepared by B+WISER to facilitate computations.
- 5. The participants are also asked to document their answers on the METT questionnaire which is collected after the assessment to crosscheck the answers. This procedure is followed until all questions have been answered. Ice breakers may be provided to break the monotony of the process.
- 6. While tallying of ratings is immediately done by the facilitator's staff after each question, the results are only made known at the end of the assessment to prevent trending of answers.
- 7. Key informants interview using a survey instrument is done either before or after the METT assessment proper. B+WISER also conducts rapid learning needs assessment for individual participants using a survey questionnaire while the results of the METT assessment are being computed.
- 8. The METT assessment is followed by an action planning on a separate the date agreed upon with the PAMB.
- 9. The results of the assessment and the draft action plan are then presented to the PAMB enbanc or ExeCom (depending on the agreement) for their review and formal approval. The PASu is then expected to integrate the action plan in the preparation of the PA's annual work plan which the PAMB approves, to facilitate its implementation, with the PASu as the lead.

More detailed information about the threats assessment and the management effectiveness assessments including the method for rating, computing and processing the answers are discussed in the succeeding sections.

The METT assessment is done every two years by PAMB upon the instructions of BMB but there is a general observation that the assessment is usually half hazardly done. B+WISER will support the conduct of this assessment over two periods: baseline at Program start and at the ending year in 2017.

### 2.2 METT LIMITATIONS

The METT has the following limitations according to Stolton et. al (2007). It is a useful tool for providing a quick overview of management effectiveness of a protected area and for tracking its progress or improvement over time. While care has been taken to ensure that the results of the assessment are reliable and objective (see the B+WISER enhancements below), the method being a qualitative assessment does not replace more thorough or rigorous methods of assessment. As such, the results of the assessment are recommended not to be used as sole basis for adaptive management and should be substantiated with other studies. Moreover, the scores are most useful for tracking progress over time in one site or a closely related group of sites (e.g., PAs within the same biophysical, economic, sociological and political mileu) in view of site specificity of context. Another limitation is that the tool does not allow detailed evaluation of outcomes. Additional studies or research should be used for this purpose.

### 2.3 B+WISER ENHANCEMENTS

BWISER made enhancements to both the METT questionnaire (Annex 2) and procedure. These changes were presented to the PAWB staff in-charge of METT as well as discussed with the lead for the GIZ- funded Protected Area Management Enhancement (PAME) project, in order to be considered in the enhancement of the existing standard protocol being followed locally. B+WISER also recommended these enhancements at the Asian Regional Workshop on the Management of Wetlands and East Asian - Australasian Flyway Sites" in 2013 in Makati City during a workshop that aimed at enhancing the METT questionnaires and procedure as a tool for improving management capacity of wetlands of international importance.

B+WISER did not change the configuration of the questions in both the threats assessment and METT assessment forms on account of the tool being a global standard tool. Enhancements have been made only to improve the clarity of the questions and their applicability to the local condition and to enhance the objectivity of the results. The following are the enhancements made to the METT questionnaires:

- Further refined the latest draft of the METT Threats Assessment Form recommended by BMB to further improve the clarity of he questions and objectivity of the assessment by providing additional explanations, qualifiers, examples, and definition of highly technical terms like'edge effect'. The latest draft sent by BMB is already an enhanced version used by the PAME.
- 2) An explanation on the factors that should be considered in rating the significance of threats (for example: type and nature of impacts, location and timing of activities, presence of mitigative measures) are included in the assessment form and and made an integral part of the assessment considerations. These are also explained by the Facilitator during the assessment and a copy prominently displayed at the assessment room.

3) An indicative qualitative and conservative system for categorising the level of significance of over-all threat to the protected area based on over-all score is devised as follows:

Low= 0-33%; Medium = 34%-67%; and High = 68% - 100%. These changes were presented to and agreed with PAWB staff in-charge of METT as well as discussed with the lead for the GIZ- funded Protected Area Management Enhancement (PAME) project

While the above is indicative, its usefulness lies in communicating in easily understandable term the qualitative significance of the overall threat as opposed to merely providing percentage rating.

- 4) The following are the B+WISER enhancements to the METT procedure. B+WISER also refined the procedure for the conduct of the METT to enhance its objectivity as well as more or less standardise the process across the Program sites. These refinements include:
  - a) A presentation on background information, salient features of the PA's management plan including the vision, objectives and targets, and accomplishments, and if the PA has this document, a presentation on the PA's manual of operations to enable participants come up with more informed assessment;
  - b) Orientation on the background, purpose, procedure, questionnaires, and objective bases for assessment using a standard PowerPoint presentation;
  - c) More extensive use of documentary and validated anecdotal evidences to guide the participants to come up with more informed answers;
  - d) More rigid facilitation and use of additional standard probing questions (whole METT takes two days instead of the usual only a few hours;
  - e) Use of an external facilitator (instead of the PASu or local DENR) to enable the PASu to participate in the assessment and to remove possible bias if the facilitation was conducted internally by any of the PA staff or PAMB member;
  - f) Inclusion of other support staff- documentor, assistants who help translate the questionnaire or write the answer (for participants who could not read nor write), and a resource person who helps in clarifying technical issues that arise during the assessment;
  - g) Improving the spatial dimension of the threats assessment. Question on the location of threats is incorporated in the form as well as asked during the threats assessment. The results are spatially presented on a map. In the case of NSMNP, google earth map was used in locating the threats;
  - h) Inclusion of a quick plenary session for further processing and validating of threats which were rated high and medium to get more information that can be used for action planning;
  - i) Use of a template excel database prepared by B+WISER to enable quick encoding and processing of the answers (Annex 4).
  - j) An indicative qualitative system for categorising the over-all management effectiveness of the protected area based on over-all score is devised as follows:

Low= 0-33% Medium = 34%-67% High = 68% - 100%

While the above is indicative, its usefulness lies in communicating in easily understandable term the qualitative meaning of the METT scores as opposed to merely providing percentage rating

- k) Integration of METT results with science-based information such as the B+WISER's derived from B ecological and socioeconomic assessments and available recent secondary information for more informed action planning.
- B+WISER also improved the supplementary key informant interview questionnaire (KII) being used by PAME by gathering other pertinent information about the key informants and adding several more questions that will help validate and gain more insights into the management effectiveness of the PA as well as enable the collection of gender and IP-related concerns. Annex 3 contains this enhanced KII instrument.

These enhancements will later be promoted for consideration by BMB.

### 2.4 PROTECTED AREA THREATS ASSESSMENT

#### A. Categories of Threat

Assessment is made on the following twelve broad categories of threats based on the Conservation Measures Partnership (CMP) threats hierarchy as contained in data sheet 1 of the METT (**Error! Reference source not found.**). These broad categories are further subdivided into total of 56 specific threats (e.g., under broad category 2. Agriculture and aquaculture within a PA, a sub-category is livestock farming). The participants determine the specific threats under each applicable broad category (e.g., shifting cultivation under agriculture) and these are all documented.

# Table 1. The twelve broad threats categories based on the Conservation Measures Partnership Threats Hierarchy

	Threats
1.	Residential and commercial development within a protected area: Threats from human settlements or other nonagricultural land uses with a substantial footprint
2.	Agriculture and aquaculture within a protected area: Threats from farming and grazing as a result of agricultural expansion and intensification (use of inorganic inputs), including silviculture, mariculture and aquaculture
3.	Energy production and mining within or outside a protected area: Threats from production of non-biological resources
4.	Transportation and service corridors within a protected area: Threats from long narrow transport corridors and the vehicles that use them including associated wildlife mortality
5.	Biological resource use and harm within a protected area: Threats from consumptive use of "wild" biological resources including both deliberate and unintentional harvesting effects; also persecution or control of specific species (note this includes hunting and killing of animals)
6.	Human intrusions and disturbance within a protected area: Threats from human activities (e.g., mass tourism) that alter, destroy or disturb habitats and species associated with non- consumptive uses of biological resources
7.	Natural system modifications: Threats from other actions that convert or degrade habitat or change the way the ecosystem functions (e.g., deforestation, fire, dams, etc.)
8.	Invasive and other problematic species and genes: Threats from terrestrial and aquatic non-native and native plants, animals, pathogens/microbes or genetic materials that have or are predicted to have harmful effects on biodiversity following introduction, spread and/or increase
9.	Pollution entering or generated within protected area: Threats from introduction of exotic and/or excess materials or energy from point and non-point sources
10.	Geological events: Geological events (e.g., earthquake, volcanic eruption, tsunami, landslides, erosion and siltation) may be part of natural disturbance regimes in many ecosystems. But they can be a threat if a species or habitat is damaged and has lost its resilience and is vulnerable to disturbance. Management capacity to respond to some of

	Threats
	these changes may be limited
11.	Climate change and severe weather: Threats from long-term climatic changes which may be linked to global warming and other severe climatic/weather events outside of the natural range of variation (e.g., prolonged droughts, temperature extremes, rainfall extremes)
12.	Specific cultural and social threats: Threats from loss of cultural links, traditional knowledge and/or management practices; natural deterioration of important cultural site values; destruction of cultural heritage buildings, gardens, sites etc.; effect of influence groups on IP values and freedom to decide; loss of support to communities and projects due to changes in political leadership.

#### B. Rating of Threats

The existing threats are rated as either of high, medium or low significance in terms of their impacts on protected area values - high if seriously degrading PA values, medium if negative impacts is less serious or medium, and low if not seriously or have low negative effect on PA values. Not applicable (N/A) answer is given when the threat is not present or not applicable in the protected area. No data answer is given when there is no available information to rank threats.

To help refine the ranking of threats, the method proposed by Biodiversity Management Bureau (BMB) of identifying pertinent markers per threat such as percentage (%) of area covered, % of PA household population engaged in the threatening activity and ranking the specific threat based on the following cut-off of percentages was considered:

RANKING	Percentages based on markers identified per threat, e.g., % of area, % of households engaged in activity
High	>10% to 100%
Medium	>5% to 10%
Low	>0%- <5%
N/A	Not present or applicable to site
No Data	No Idea if present or absent or threat is known to exist but no quantification is possible (i.e., data deficient, needs more information)

### Table 2. Rating of Threats

B+WISER further refined the threats assessment procedure by integrating the following considerations in the assessment of the threats. The facilitator carefully explains each consideration in relation to the specific threat being assessed as shown below.

- Nature of threat- different activities can result in different levels of threats, or risks, some can have more serious impact than others (mining vs. agriculture, hook and line fishing vs. trawl fishing), some can be persistent or not easily addressed, temporary or permanent/irreversible negative impact). Whether the activities are allowed and consistent with the PA management plan and regulations is also asked to put the the threats into proper context as well as aid in PAMB decision-making.
- **Timing/Duration/Frequency/Trend and specific location of threat -** for example, the impact of hunting will be greater during mating or breeding season; encroachment in the strict protection zone could pose greater threat than when done in the multiple use zone; question on whether the threat is increasing or decreasing in trend.
- **Magnitude/scale of threat-** includes size (e.g., of area deforested), volume (e.g., of pollutants produced, timber cutting vs. illegal logging, subsistence vs. commercial), level of toxicity (e.g., of pesticides), see space-based qualifier below
- **Cumulative nature of threat-** impacts of threat can accumulate over time, or synergize with each other to result in greater amount of threat (1 threat +1 threat=>2 threats)
- **Exposure and sensitivity/vulnerability** of the affected system (vulnerability of the system particularly in relation to climate change, e.g., deforestation along high slopes may have greater impact than on level land, critically denuded watershed more prone to flooding than healthy watershed, issue of ecosystems resilience to threats)
- **Remedies/management actions already in place** to address the threats and the effectiveness of these actions (e.g., existence of mitigating measures to ameliorate the effects of the threats or to abate/avoid these threats)

#### C. Calculation of over-all threats rating

The over-all rating for each threat is determined using this procedure.

- a. The threat rating is assigned an equivalent point as follows: High = 3 points, Medium = 2 points and Low = 1 point.
- b. The total maximum score (TMS) is calculated by multiplying the highest possible score/points with the total number of assessment participants. To illustrate: TMS = 3 (highest possible rating) x 10 (participants) = 30
- c. The total score (TS) is computed by aggregating the number of points each threat gets from all participants. To illustrate:
  - Agriculture (through kaingin) TS = 20 points (from 10 participants)
- d. The percentage score (PS) of the threat is computed based on the following formula: PS = TS/TMS x 100% =  $20/30 \times 100\% = 67\%$
- e. The Indicative Qualitative Rating is assigned based on the following range of PS: High = 68-100% Medium = 34-67% Low = 0-33%

The summary results are presented in plenary as well as the results of previous year's threats assessments, if any. The presentation is followed by an open discussion to enable the participants to process further the threats rated as medium and high. All explanations and issues are documented and serve as inputs to the action planning part conducted later. Further analysis and prioritization of threats are made during the post-assessment action planning part.

### 2.5 ASSESSMENT FORM

Table 3Table 3 below shows the elements of evaluation of PA management effectiveness covered by METT. The evaluation encompasses a total of 30 issues in PA management under all six elements; most (40%) are related to the process or assessment of the manner by which management is conducted.

			MENTS OF EVA			
	Context	Planning	Inputs	Process	Outputs	Outcomes
	Where are we now?	Where do we want to be and how do we get there?	What do we need (already have)?	How do we go about our work? (mgt. actions)	What products and services did we generate?	What did we achieve?
Explanation	Assessment of importance, threats and policy environment	Assessment of protected area design and planning	Assessment of resources needed to carry out management	Assessment of the way by which management is conducted	Assessment of the Implementation of Management programs and actions; delivery of products and services	Assessment of the outcomes and the extent to which they achieved objectives
Criteria that are being Assessed	Significance Threats Vulnerability National context Partners	Protected area legislation and policy Protected area system design Reserve design Management planning	Resourcing of agency Resourcing of site	Suitability of management processes	Results of management actions Services and products	Impacts: effects of management in relation to objectives
Focus of Evaluation	Status	Appropriateness	Resources	Efficiency and appropriateness	Effectiveness	Effectiveness and Appropriateness
Issues Evaluated	Legal status	<ul> <li>Protected area regulations</li> <li>PA Objectives</li> <li>PA Design</li> <li>PA boundary Demarcation</li> <li>Management Plan</li> <li>Regular workplan (Annual WFP)</li> <li>Planning for adjacent land and water use</li> </ul>	<ul> <li>Law enforcement</li> <li>Resource Inventory</li> <li>Staff Numbers</li> <li>Staff Training</li> <li>Current budget</li> <li>Security of budget</li> <li>Equipment</li> <li>Fees</li> </ul>	<ul> <li>Protection systems</li> <li>Research</li> <li>Resource management</li> <li>Tenurial instrument</li> <li>Budget mgt</li> <li>Maintenance of equipment</li> <li>IEC</li> <li>State/ commercial neighbors</li> <li>IPs</li> <li>Local communities</li> <li>M&amp;E</li> <li>Commercial operators</li> </ul>	<ul> <li>Economic Benefits</li> <li>Visitor Facilities</li> </ul>	Condition of values

Table 3.	The six elements of evaluation of protected area management effectiveness

#### A. Rating Procedure

For each issue evaluated, individual participants select from a series of four alternative conditions that reflect the degree of management effectiveness, each with equivalent points, as follows:

- a) 0 no or negligible progress
- b) 1 some progress
- c) 2 quite good but has room for improvement
- d) 3 approaching optimum situation

Supplementary questions which elaborate on key themes in the previous issue and provide additional information and enable the garnering of additional points are also asked. Where questions are not relevant to the protected area, they are left out and scoring is adjusted accordingly. The participants are also asked to provide comments/explanation for qualitative judgments including why a question is not answered on the column intended for this purpose

The answers are collated and inputted in the excel database created by B+WISER that enables automatic calculation of scores. The scores are then presented in plenary (alongside previous METT assessment results, if any), including the collated explanations and recommended next steps of the participants. An open forum then follows to further process the answers.

#### B. Calculation of Management Effectiveness Rating

The management effectiveness rating by issue, by element and overall is calculated using the following steps:

- a) The total maximum score (TMS) is calculated by multiplying the highest possible score/points with the total number of questions asked and with the total number of assessment participants. To illustrate:
- b) TMS Planning = 3 (highest possible rating) x 7 (total questions) x 16 (participants) = 336
- c) The total score (TS) is computed by aggregating the number of points each issue gets from all participants. To illustrate:
- d) TS = 168 points (from 16 participants)
- e) The percentage score (PS) is computed based on the following formula:
- f)  $PS = TS/TMS \times 100\% = 168/336 \times 100\% = 50\%$
- g) The Indicative Qualitative Rating is assigned based on the following range of PS:

High = 68-100% Medium = 34-67% Low = 0-33%

### 2.6 ACTION PLANNING

During the action/adaptive management planning phase, the METT assessment results, including the training needs assessment and key informant interview results are presented, validated and further refined with the PAMB, PASU, and DENR field unit staff participants. To enhance the technical basis of the action planning, the information as well from available integrated assessments conducted by the B+WISER technical team are presented. At the time the action planning sessions were conducted for eight PA sites, the available assessment results were only from the land use and forest cover change analysis from 2003-2010. Nonetheless, as additional scientific information becomes available, the PAMB was made to understand that their adaptive management strategies can be further enhanced/adjusted.

For the MKRNP and MKNP action planning, the HCVA map prepared by B+WISER was presented. The results of the threats/pressure analysis conducted by the Regional Working Groups were also presented to complement/strengthen the METT threats assessment. The action planning is in the form of a facilitated workshop during which the PAMB determines and agrees on the management strategies that it will adapt to improve the management effectiveness of the protected area. In NSMNP, the METT action plan was readily deliberated upon and formally approved for adoption by the PAMB ExeCom right after the action planning. In the other Program sites, however, either there was no time to do this or there was no quorum and the PAMB Chair was not present. For these sites, the agreement was that the action plan will be further reviewed, refined, and formally approved by the PAMB ExeCom or PAMB en banc in one of their meetings and will form part of the PA's annual workplan and PA management plan enhancement. The draft action plans are found in Annex 5.

# 3. PROFILE OF THE PROTECTED AREA

Table 4 summarizes the profile of the ten PAs covered by METT. The information presented does not include yet information on the important biophysical/ecological resources of the sites pending the formal acceptance of the results of the ecological assessments conducted by B+WISER. This latter information is very important as context for PA management and will be used in the updating/enhancement of the individual PA METT action plan and PA management plan as part of the PAMB's adaptive management process. Some of the PA sites are recognized internationally because of their unique and outstanding biodiversity, ecological and cultural values. For instance, MANP and MKRNP are both Asean Heritage Parks on account of their biodiversity importance and extreme uniqueness. NINP is a RAMSAR site meaning it is a wetland with international importance. It is also an Asean Flyway being an important international migration pathway of birds.

Because the profile is already presented by site in Table 4, only the key observations across the sites are presented below:

- PA sizes varied widely with NSMP as the largest with total size of 359,486 has and MMWFR as the smallest with only 810 ha.
- Information on the size of the buffer zone is available only for three sites (NSMNP, MKRNP and MANP). The very limited information on the state of buffer zones and on effects of buffer zone management strategies in protecting biodiversity in a PA in the Philippines has been pointed out by Caleda (2013) and Catibog-Sinha and Heaney (2006).
- Four of the PAs (MKRNP, MANP, MKNP, NSMNP) have their own specific governing laws and effecting their land classification as national parks. Two PAs (NLNP and KWFR) are initial components of the National Integrated Protected Area System (NIPAS) being both a proclaimed watershed forest reserve which means they can still be disestablished or delisted from NIPAS. The rest of the PAs have been already established under the NIPAS through a Presidential Proclamation. Having their own specific laws will help these PAs to address specific requirements to help them govern and manage better PA resources.
- The proclaimed or legislated PAs belong to only two types of categories of protected area: natural park or protected landscape. Categories of PAs are set based on three criteria: natural features, management objectives, and allowable human activities. Majority (six or 60% of total) are natural parks which means they possess the following characteristics defined under the NIPAS Act: 'relatively large area not materially altered by human activity where extractive resource uses are not allowed and maintained to protect outstanding natural biodiversity and scenic areas of national or international significance for scientific, education and recreational use.
- All PAs serve watershed services function. NSMNP and MANP contain the highest number of watersheds of 14 and 11, respectively. NLNP has 4 and MKRNP has 3. All the rest only have one watershed within the PA site.

- All the PAs are situated within one province only, except for MANP which belongs to two. All PAs contain at least one city and a number of municipalities. The PAs within QAW contain the most number of barangays which total 235. Having more LGUs means the PAMB has more LGU members which present both a challenge and an opportunity in terms of collaboration and cooperation. Having more LGUs as PAMB members would mean more potential partners in the management of the PA as LGUs can potentially readily move LGU resources to manage the parts of the PA that belong to their territorial and political jurisdiction. However, very large PAMBs can pose a problem in terms of getting quorum and consensus as explained below.
- NNNP (76), MKRNP (60) and MANP (67) have the largest PAMB sizes while MMWFR has the smallest (18). Other things being equal, the larger the size of the PAMB the more challenging it would be to obtain quorum and consensus. However, it might also present an opportunity in terms of greater number of warm bodies who can be assigned with different management and governance responsibilities to carry on the overall vision, goals and objectives of the PA, once these are clarified, clearly delineated and formally agreed upon. MANP encompasses two distinct DENR regional offices, Region XI and XII, the latter is the larger one and from where the DENR Regional Director Chair of the PAMB comes from. There is one PAMB based in Region XI and a sub-PAMB in North Cotabato. There are currently two PASus, one PASU is the concurrent PENRO of Davao Sur in Region XI, the other PASu which assists the sub-PAMB in Region XII will later be designated as Deputy PASU by the current RC (personal communication with Mr. Gregory Luz, Field Manager of B+WISER, January 30). This set-up coupled with the huge PA territory, while providing a means for more decentralized management responsibility and efficiency can prove problematic in terms of achieving quorum during PAMB en banc meeting. Very important, in the absence of a clear and proper communication, coordination, working relationship and reporting mechanism between the two PAMBs and PASus, and within each PAMB, clear delineation and clarification of roles and responsibilities and system for exacting accountabilities, having two PAMBs and PASus could pose huge challenge also to achieve coherent overall direction for PA management despite the presence of a recently approved management plan. There will also be a need for more effort to improve the compatibility and coherence of policies, projects and actions including for conservation financing at the level of the whole MANP.
- Estimated annual budgets for PA operations which range from only PHP 0.30 per ha in NNNP to PhP 74 per ha for MMWF (size is only 810 ha, hence the high ratio per ha) is too low considering the size of the area that needs to be protected and the vast biological and other resources found therein. The budget represents mainly DENR regional office appropriations for the PA and not PA generated funds. The LGUs are able to augment resources for implementation of PA activities within their localities by providing own allocations from their own internal sources or limited leveraging activities. B+WISER tried to request data from the field on actual PA expenditures in all sites as this reflects the actual amount of funding a PA has (i.e., budget may be set high, but the amount released and spent may be so much smaller and grossly inadequate) but there was no response yet at the time this report was completed. The data on amount of available funding is useful in estimating the gap between what is only available and the actual amount needed to be made available to make the PA effectively managed. B+WISER's component on Sustainable Financing will take care of this need.

• The dismal situation in terms of PA financing is repeated in terms of personnel complement. Only MKRNP has a full-time PASu. The PASus in the other PA sites are either concurrently PENRO or CENRO in their localities. Except for MKRNP, MANP and MKNP, there are also none (in NNNP and MVNP) to very few DENR staff involved in PA management apart from the PASu and these are mostly lent personnel or doing other functions in the PENRO or CENRO. Community volunteer guards assist in environmental law enforcement in four sites (NSMNP, MKRNP, MKNP, and NNNP). For instance, in MKRNP there are 380-strong Kitanglad Guard Volunteers (KGVs) who are very effective environmental law enforcers and social fence against encroachment by outsiders because the KGVs who operate within each barangay are familiar with legitimate PA occupants, they are able to closely monitor and prevent new entrants.

Name of Protected Area	Total PA Size (ha)	Size of Buffer Zone (ha)	Legal Status	PA Category	No. of Water shed/ Sub- water shed	No. of LGUs Covered	Pop'n Inside (Individuals)	Annual Budget (operational funds in PhP)	Annual Budget per ha (PhP)	Size of PAMB	Status of PASU (full-time, concurrent)	No. and Status of PA Staff
Northern Sierra Madre Natural Park	359,486	16,300	RA 9125 (2001)	Natural Park	14	9	47,593 <sup>4</sup>	200,000 <sup>5*</sup>	0.60	37	Concurrent PENRO of Isabela	2 (PASU and Asst. PASU) 2 staff <sup>6</sup> 5 Special collecting officer <sup>7</sup> 1 Clerk <sup>8</sup> Bantay Kalikasan Brigade (BKB) <sup>9</sup>
Upper Marikina River Basin Protected Landscape (UMRBPL)	26,125	ND	PP 296 (2011)	Protected Landscape	4	5	340,593 <sup>10</sup>	2,000,000 11 ^	77	27	Concurrent PENRO of Antipolo	1 (PASU) UMRBPL Project Management Team <sup>12</sup> (25) staff LGUs as Deputized Environment and Natural Resources Officer
Kaliwa Watershed Forest Reserve (KWFR)	27,613	ND	PP 573 (1969)	Initial component proclaimed as WFR	4	4	13,672	140,000 <sup>13*</sup>	5	19	CENRO of Antipolo and Quezon	2 (PASu and Asst. PASU) No PA Volunteers but General Nakar has Barangay Law Enforcement Team (BLET) covered by an ordinance

#### Table 4. Profile of the Ten Protected Areas that Went Through the METT Assessment in the Seven B+WISER Program Sites

<sup>4</sup> 2010 Census

<sup>5</sup> 2014 Budget

<sup>6</sup> CENRO Palanan staff on call to provide assistance as a secretariat to the Office of the PASu in matters pertaining to PA operations during PAMB meetings

<sup>7</sup> Officer detailed in CENRO Palanan

<sup>8</sup> Assist during PAMB meeting
 <sup>9</sup> BKB are volunteer enforcers working in the Park

<sup>10</sup> Population data for Kaliwa and Upper Ma
 <sup>11</sup> 2014 budget which is part of the PhP 200 million allocated by the Philippine government for 2013 to 2016 to the UMRBPL project

<sup>12</sup> Project Monitoring Team (PMT) staffs include the PASu, but only two of these are permanent staff.
 <sup>13</sup> Annual Budget for 2014

Name of Protected Area	Total PA Size (ha)	Size of Buffer Zone (ha)	Legal Status	PA Category	No. of Water shed/ Sub- water shed	No. of LGUs Covered	Pop'n Inside (Individuals)	Annual Budget (operational funds in PhP)	Annual Budget per ha (PhP)	Size of PAMB	Status of PASU (full-time, concurrent)	No. and Status of PA Staff
Naujan Lake National Park (NLNP)	22,277		PP 282 (1956)	Initial component being proposed as Protected Landscape/ Seascape)		4	15,000	400,000 <sup>14*</sup>	18	24	CENRO of Socorro	4 (PASU, Asst. PASU and other DENR)
Mayon Volcano Natural Park (MVNP)	5, 776		PP 413 (2000)	Natural Park	1	3	300,000 <sup>15</sup>	60,000 <sup>16*</sup>	10	37	Concurrent staff of CENRO Guinobatan	1 (PASU)
Mt. Masaraga Watershed Forest Reserve (MWFR)	810		PP 84 (1992)	Initial component proclaimed as WFR	1	3		60,000 <sup>17*</sup>	74	18	Concurrent staff of CENRO Guinobatan	2 (PASU and Asst. PASU)
Mt. Kanlaon Natural Park (MKNP)	24,300	169	RA 9154 (2001)	Natural Park	2	6	120,000 18	500,000- 800,000**	21-33	31	The MKNP PASu works as full time	5 Full-time 10 Part-time 140 Kanlaon Green Brigade <sup>19</sup>
North Negros Natural Park (NNNP)	80,454	No data	PP 895 (2005)	Natural Park	4	11		21,607 <sup>20**</sup>	0.30	76	Concurrent CENRO of Cadiz	0 But could mobilize the 25 CENRO staff 200 Bantay Bukid Brigade <sup>21</sup>
Mt Kitanglad Range	47,270	16, 034	RA 8978 (2000)	Natural Park	4	7	50,000	300,000*	6	60	PASu is the PENRO of Bukidnon	16 (7 Full Time including 3 extension officers

<sup>14</sup> Budget in the GMP for 2014
 <sup>15</sup> This is the estimated population of individuals in the barangay inside the Quinali-A which covers part of North Negros and Kanlaon
 <sup>16</sup> Based on 2012 approved budget
 <sup>17</sup> Based on 2012 approved budget
 <sup>18</sup> Estimated total population in the Bago Watershed which covers 4 cites and 3 municipalities. Not all populace are within the Bago Watershed
 <sup>19</sup> Kanlaon Green Brigade (KGB) volunteers in law enforcement in MKNP

<sup>20</sup> Budget in 2014

<sup>21</sup> Bantay Bukid Brigade (Law enforcement volunteer/officers) are actively participating in law enforcement in the PA

Name of Protected Area	Total PA Size (ha)	Size of Buffer Zone (ha)	Legal Status	PA Category	No. of Water shed/ Sub- water shed	No. of LGUs Covered	Pop'n Inside <sub>(Individuals)</sub>	Annual Budget (operational funds in PhP)	Annual Budget per ha (PhP)	Size of PAMB	Status of PASU (full-time, concurrent)	No. and Status of PA Staff
Natural Park (MKRNP)												9 "job orders" (contractual) 380 trained volunteer forest guards (KGV)
Mt Apo Natural Park (MANP)	55,713	9,108	RA 9237 (2004)	Natural Park		7	125,494 22	300,000*		67 One PAM B and one "sub- PAMB ' in North Cotab ato	PASu is PENRO of Davao Del Sur in Reg 11. The designated PASU for Reg XII will be appointed Deputy PASU. Region XI has created Protected Area Operations Superintended (POSO)	16 (all are serving concurrent functions under PENRO and CENRO offices)

\*From Annual Report
 \*\*From the workshop
 ^ from site level presentation

<sup>&</sup>lt;sup>22</sup> Based on 2010 Census data

# 4. **RESULTS**

### 4.1. THREATS ASSESSMENT

Table 5 below contains a summary of the threats rating in the ten protected areas. The figures have been color-coded to enable easy spotting of the categories of the different threats: red for high, blue for medium and black for low. One will notice that across the sites, the differences in the percentage scores of each threat widely varied (see the range). It should be explained that the presented averages per threat is intended only to be used in gauging the indicative relative importance of each threat in relation to the other threats (or across all threats) and not to present an average rating across the sites on account of the wide range of values (percentages).

	Table 5.       Summary Table of threats rating across the Program Sites         ITHREATS CATEGORY       Overall score (% of Total Maximum Possible Points) and Indicative Qualitative Rating											
THREATS CATEGORY	(High = 68%-100%, Medium = 38%-67%, Low = 37% or less											
		ANP NLNP MMWFR MVNP MKRNP UMRBPL NSMNP KWFR NNNP MKNP										
01. Residential and commercial						OWNER	NOIVINI			IVITAINI	(%)	
01.1 Housing and settlement	84	84	0	7	36	88	38	74	73	68	55 (0-84)	
01.2 Commercial and industrial	68	35	0	4	33	81	36	50	48	0	36 (0-68)	
areas	00	00	U	т	00	01	00	00	-10	Ŭ	00 (0 00)	
01.3 Tourism and recreation	53	23	0	18	29	67	27	43	62	41	36 (0-53)	
infrastructure											, , ,	
02. Agriculture and aquaculture	within a	a prote	cted area									
02.1 Annual and perennial non-	73	69	17	42	44	60	27	79	70	72	55 (17-79)	
timber crop cultivation												
02.1a Utilization of portions of PA	82	72	33	44	45	60	27	86	63	64	58 (27-82)	
to upland vegetable & other agricultural/plantation crop farms												
(pollutive inputs, e.g.,												
insecticides, pesticides)												
02.1b Illegal drug cultivation	16	3	0	0	6	13	0	7	0	15	6 (0-16)	
02.2 Wood and pulp plantation	20	31	0	7	29	40	13	17	40	0	20 (0-40)	
02.3 Livestock farming and	26	57	0	51	19	73	9	40	45	39	36 (0-73)	
grazing			-				-					
02.4 Marine and freshwater	11	24	0	0	5	25	13	38	18	0	13 (0-38)	
aquaculture												
03. Energy production and minin			1					1	1	1		
03.1 Oil and gas drilling	6	0	0	9	0	4	0	19	0	0	4 (0-19)	
03.2 Mining/quarrying	24	27	0	27	5	69	2	69	15	0	24 (0-69)	
03.3 Energy generation, including	55	5	0	0	9	42	24	62	13	31	24 (0-55)	
from hydropower dams												
03.4 Treasure Hunting	23	9	0	0	19	60	13	50	30	28	23 (0-60)	
04. Transportation and service of					I .=							
04.1 Roads and railroads, include road-kill	52	60	0	16	17	71	36	48	32	43	38 (0-71)	
04.2 Utility and service lines (e.g.,	45	59	0	11	23	69	16	21	30	30	30 (0-69)	
electricity cables, telephone lines)												
04.3 Shipping lanes and canals	9	33	0	0	0	4	18	2	0	0	7 (0-33)	
04.4 Flight paths	3	5	0	0	13	38	13	29	15	0	12 (0-38)	
05. Biological resource use and	harm w	vithin a	protected	area								
05.1 Hunting, killing and	53	53	7	29	49	79	49	45	53	38	46 (0-79)	
collecting terrestrial animals												
(including killing of animals as a												
result of human/wildlife conflict)												

Table 5. Summary Table of threats rating across the Program Sites

THREATS CATEGORY	Overall score (% of Total Maximum Possible Points) and Indicative Qualitative Rating           (High = 68%-100%, Medium = 38%-67%, Low = 37% or less           MANP         NLNP           MANP         NLNP           MWFR         MVNP           MKRNP         UMRBPL           NSMNP         KWFR           NNNP         MKNP										
	MANP	NLNP	MMWFR	MVNP	MKRNP	UMRBPL	NSMNP	KWFR	NNNP	MKNP	(%)
05.2 Gathering terrestrial plants or plant products (non-timber)	51	32	7	51	31	69	24	38	45	38	39 (7-69)
05.3 Logging and wood harvesting	51	33	40	49	22	79	36	52	67	53	48 (22-79)
05.4 Fishing, killing and harvesting aquatic resources	25	77	0	0	12	40	27	33	25	23	26 (0-77)
05.5 Trawling, blast and poison fishing	25	45	0	0	5	46	38	26	0	11	20 (0-46)
06. Human intrusions and distur	bance v	within a	protected	l area	•				•		
06.1 Recreational activities and tourism	58	32	0	27	40	58	18	52	53	39	38 (0-58)
06.2 War, civil unrest and military exercises	39	0	0	0	23	50	7	36	25	33	21 (0-50)
06.3 Research, education and other work-related activities in protected areas	37	33	0	22	46	40	18	31	32	36	30 (0-46)
06.4 Activities of protected area managers (e.g., construction or vehicle use, artificial watering points and dams)	32	12	0	13	14	38	9	38	30	31	22 (0-38)
06.5 Deliberate vandalism, destructive activities or threats to protected area staff and visitors	40	16	0	11	22	48	7	26	15	38	22 (0-48)
07. Natural system modification	S										
07.1 Fire including arson	44	29	3	24	36	81	24	48	48	55	39 (3-81)
07.2 Dams, hydrological modification and water management/use	46	24	0	7	26	46	20	52	30	37	29 (0-46)
07.3a Increased fragmentation within protected area	45	20	0	9	12	42	13	45	0	29	22 (0-45)
07.3b Isolation from other natural habitat (e.g., deforestation, dams without effective aquatic wildlife passages)	44	28	0	16	12	56	18	57	0	29	26 (0-57)
07.3c Other 'edge effects' on park values	32	21	0	7	6	38	24	24	0	0	15 (0-38)
07.3d Loss of keystone species (e.g., top predators, pollinators etc.)	52	52	0	7	23	63	27	48	0	26	30 (0-63)
08. Invasive and other problema	tic spec	cies and	d genes								
08.1 Invasive non-native/alien plants (weeds)	39	53	0	9	15	42	11	26	0	0	20 (0-53)
08.1a Invasive non-native/alien animals	20	64	0	9	8	56	4	36	10	9	22 (0-64)
08.1b Pathogens (non-native or native but creating new/increased problems)	9	59	0	7	6	27	2	10	5	3	13 (0-59)
08.2 Introduced genetic material (e.g., genetically modified organisms)	3	24	0	2	15	27	7	14	0	2	9 (0-27)
09. Pollution entering or generation	ted with	in prot	ected area								
09.1a Household sewage and urban waste water	48	72	0	0	1	83	18	52	53	36	36 (0-83)
09.1b Sewage and waste water from protected area facilities (e.g., toilets, hotels etc.)	39	36	0	4	10	67	13	17	38	33	26 (0-67)
09.2 Industrial, mining and	15	13	0	0	13	79	7	21	17	31	20 (0-79)

THREATS CATEGORY							s) and India	cative Qu	ualitative	Rating	Average
	(High =	68%-1	00%, <mark>Medi</mark> MMWFR	um = 38	<u>%-67%, L</u> MKRNP	<b>OW = 37%</b>	or less NSMNP	KWFR	NNNP	MKNP	and Range (%)
military effluents and discharges	WANE	INLINF					INGIVINE	NVIK			(70)
(e.g., poor water quality											
discharge from dams, e.g.,											
unnatural temperatures, de-											
oxygenated, other pollution)											
09.3 Agricultural and forestry	60	77	0	24	22	52	18	50	50	38	39 (0-77)
effluents (e.g., excess fertilizers											
or pesticides)									10		40 (7.00)
09.4 Garbage and solid waste	62	68	33	7	37	88	31	55	43	33	46 (7-88)
09.5 Air-borne pollutants	23	27	17	0	9	56	7	29	20	28	22 (0-56)
09.6 Excess energy (e.g., heat pollution, lights etc.)	15	12	0	0	4	29	4	12	0	30	18 (0-30)
10. Geological events											
10.1 Volcanoes	20	12	13	84	13	4	0	12	0	53	21 (0-84)
10.2 Earthquakes	24	15	40	56	26	42	24	31	42	51	35 (15-56)
10.3 Avalanches/ Landslides	52	29	30	29	44	77	38	60	60	48	47 (29-77)
10.4 Erosion and siltation/	58	43	37	49	46	73	44	60	55	55	52 (37-73)
deposition (e.g., shoreline or											、 <i>,</i> ,
riverbed changes)											
11. Climate change and severe w	veather										
11.1 Habitat shifting and	10	44	0	18	24	50	11	48	0	11	22 (0-50)
alteration	'										
11.2 Droughts	38	43	0	49	35	77	29	67	53	45	44 (0-77)
11.3 Temperature extremes	35	37	0	36	35	73	36	62	48	29	39 (0-73)
11.4 Storms and flooding	44	80	0	58	53	85	49	71	58	56	55 (0-85)
12. Specific cultural and social t	hreats				·						
12.1 Loss of cultural links,	63	47	0	11	31	56	27	45	43	38	36 (0-56)
traditional knowledge and/or											
management practices	'										
12.2 Natural deterioration of	49	25	23	11	31	40	13	40	33	41	31 (11-49)
important cultural site values		10	0	4		10	7	10		45	0.1 (0.40)
12.3 Destruction of cultural	33	16	0	4	22	46	7	40	23	45	24 (0-46)
heritage buildings, gardens, sites etc.											
12.4 Effect of Influence groups on	60	71	0	11	50	58	33	52	30	57	42 (0-71)
IP values and freedom to decide	00	11	0		50	50	55	52	50	57	42 (0-71)
12.5 Loss of support to	57	41	0	58	41	81	16	55	37	51	44 (0-81)
communities and projects due to											
changes in political leadership											
No. of High Threats	4	9	0	1	0	19	0	5	2	2	
No. of Medium Threats	29	14	2	10	7	16	5	30	21	22	

The readers of this report are enjoined to look at the details of the assessment for each site compiled in Annex 5, which includes the location, trend, species and habitats under pressure from each threat. Only the threats that have been rated high and medium are presented as they are the priority threats to monitor as recommended by the participants. Some sites have further prioritized the medium threats during the validation and action planning phase to focus their management interventions and those left out are no longer presented.

More detailed discussion by site is no longer made on account of the length of this report and as they are all found in Annex 5. These results are also contained in the individual activity report on METT shared with the PAMB and PASU of each site. Moreover, a powerpoint presentation of the METT assessment results (including the KII and TNA) has been prepared by site which can be used by B+WISER field managers, PAMB and PASU for internal discussions and for presenting the results to outside audience.

The bullets below summarize the key findings across the ten sites:

- The most common broad categories of threats perceived as high across the Program sites are:
  - Residential and commercial development with six sites (MANP, NLNP, UMRBPL, KWFR, NNNP and MKNP) ranking housing and settlement as high threats and commercial and industrial areas rated as high threats in two sites (MANP and UMRBPL). To illustrate, in UMRBPL, an increasing influx of informal settlers in Rodrigues, Tanay, Baras, Antipolo, and San Mateo has been observed. Selling of IP claimants' rights is a problem in MANP, MKNP, NNNP, UMRBPL, and KWFR. In MANP and NNNP structures and settlements are found within the strict protection zone (SPZ).
  - 2) Agriculture, with annual crop and non-timber crop cultivation and upland vegetable farming (in MKNP, NNNP, KWFR, NLNP, and MANP) and livestock-raising (KWFR) rated as high threats because of pollutive inputs associated with these activities;
  - 3) **Pollution** entering or generated within protected area, including household sewage and wastewater in NLNP and UMRBPL and agricultural effluents from excess fertilizers and pesticides, garbage and solid waste in NLNP and UMRBPL;
  - 4) **Biological resource use and harm** within a protected area. Specific threats include illegal fishing and harvesting aquatic resources (NLNP); hunting, killing and collecting terrestrial animals, gathering terrestrial non-timber plants or plant products and wood harvesting/cutting mostly for charcoal and fuelwood production (UMRBPL);
  - 5) **Climate and weather related risks and geological events** such storms and flooding in NLNP, UMRBPL and KWFR, volcanic eruption in MVNP and droughts, landslides and erosion/siltation in UMRBPL. Based on the number of high ratings, UMRBPL appears perceived as most highly geologically and climate-related risks threatened. Forest and grassland fires usually occur during prolonged drought (especially during an El Niño event) in most of the sites.
- The top rank specific threats across the sites based on the average score they garnered are (see last column of Table 4):

- 1) upland vegetables and other crops farms due to pollutive inputs (58%)
- 2) housing and settlement (55%)
- 3) annual and timber crop cultivation (55%)
- 4) flooding (55%)
- 5) logging (i.e. timber cutting) and wood harvesting (due to timber, kaingin,
- 6) fuelwood and charcoal) (48%)
- 7) landslides (47%)
- 8) hunting, killing and collecting terrestrial animals (46%) and,
- 9) garbage and solid waste (46%)
- It appears that the most highly threatened PAs based on the number of high threat ratings they garnered are UMRBPL (most threatened with 19 threats rated as high), NLNP, KWFR and MANP. Many threats in these sites such as unregulated tourism, human intrusion, and natural systems modification from increased habitat fragmentation have medium rating but if left unaddressed might become high threats in the future.
- NSMNP, MKRNP and MMWFR appear the least threatened with no high threat and almost all threats rated low in significance. The least threatened condition of MKRNP may be attributed to the active and effective enforcement and protection led by the IP volunteer group called Kitanglad Guard Volunteers.
- Transportation and service corridors particularly roads were generally seen as medium threat, except for UMRBPL where roads and presence of communication and service/utility lines were seen as high threats because they attract illegal settlement and land speculation which at the time of the assessment are rampant.
- Threats from human intrusion, particularly from recreational activities, tourism and vandalism, were generally rated as medium. Unregulated tourism poses threats because of lack of visitor management. In MANP, for instance, this results in damage to trails and production of large amounts of solid waste.
- Threat from biological resource use and harm generally obtained medium rating across the sites. The few exceptions are NLNP where illegal gathering of wild ducks' eggs reportedly remain uncontrolled and UMRBPL which rated three-related threats as high: hunting, killing and collecting terrestrial animals; gathering of terrestrial plants, and wood/timber harvesting usually for fuelwood and charcoal-making.
- Threats from natural systems modification such as from fire, dams and other hydrological modification, increased fragmentation and isolation of species from natural habitats, and loss of keystone species were mostly rated medium at present but could pose more threat in the future if left unaddressed. The threat due to loss of keystone species will have to be verified scientifically to establish the basis for this claim by the METT respondents. Forest and grassland fire from both natural and man-made causes (e.g., careless throwing of lighted cigarette of trekkers, shifting cultivation) are experienced in all sites, especially in UMRBPL and Bago Watershed PAs, but there is no effective system for addressing this threat.
- In NLNP, alien and invasive plant (water lily) and animal species (janitor fish) and pathogens (schistosomiasis causing snails which is a threat to humans) were seen as medium threats. In the Makilala area of MANP, the participants reported the presence of highly aggressive shrub named buyo-buyo (Piper aduncum) linked to degradation of natural forests because they do

not allow other trees grow near them (i.e. allelopathy) and they invade open areas. Buyo-buyo is highly invasive and threatening and according to BMB is reportedly present all over the PAs in Mindano and has now started to become a problem also in the Visayas.

- Threats under the category specific cultural and social threats, particularly loss of cultural links, traditional knowledge and management practices, and effect of influence groups on IP values and freedom to decide in PAs where there are IPs especially in UMRBPL, KWFR, NNNP, MKNP, and MANP and loss of support to communities and projects due to changes in political leadership (rated as high in UMRBPL) were mostly seen as medium threats. The increased encroachment and house building by non-IPs is seen as a threat to their culture by the local IPs because of the potential erosion of traditional knowledge due to increasing intermarriages and increased exposure to modern ways and thinking, as well as direct threats to areas considered as sacred sites (e.g., burial ground) or places for cultural activities.
- Most of the threats are linked to weak law enforcement which is a subject of another B+WISER technical report.

## 4.2. MANAGEMENT EFFECTIVENESS RATING

Table 6 consolidates the management effectiveness assessment scores for each of the ten PAs that went through the METT assessment. The core scores represent the scores obtained from the 30 original questions of the METT questionnaire. The total overall score combines the points obtained by a specific PA in the 30 core questions and the bonus points they garnered for conducting additional practices in the extra questions. The presence of bonus points which was as high of 14% in the case of MANP elevated the total overall management effectiveness scores of all the PAs.

The issues and elements where the PAs underperformed (tentatively determined as those which generated score of less than 55% to highlight them) are marked in red.

								(imum Total)				
Elements	Criteria	KWFR	MANP	MKRNP	MMWFR	MVNP	NLNP	NSMNP	UMRPL	NNNP	MKNP	Average
		%	%	%	%	%	%	%	%	%	%	
Context	Legal status	67	100	100	67	67	67	100	67	64	100	80
	Over-all for	67	100	100	67	67	67	100	67	64	100	80
	context											
Planning	PA regulations	20	70	79	0	64	39	82	55	45	96	55
	PA Objectives	38	76	80	50	40	58	68	52	55	72	59
	PA Design	38	73	86	47	58	29	79	60	51	78	60
	Management Plan	38	70	88	31	64	14	80	86	60	78	61
	Regular Work Plan	22	27	77	86	67	39	74	62	61	76	59
	Planning for adjacent land and water use	36	41	70	42	38	43	61	48	51	54	48
	Over-all for planning	32	60	80	43	55	37	74	60	54	76	57
Input	Law Enforcement	36	43	73	53	44	55	62	57	40	86	55
	Resource Inventory	31	44	59	44	38	33	64	50	60	57	48
	Staff numbers	40	35	71	42	33	32	53	62	33	58	46
	Staff training	38	59	74	58	56	36	68	60	44	47	54
	Current budget	9	44	67	33	56	25	62	50	36	51	43
	Security of budget	20	33	62	28	44	20	48	29	37	58	38
	Equipment	13	41	58	14	4	33	42	52	31	53	34
	Fees	16	41	56	0	51	10	64	26	8	57	33
	Over-all for input	25	43	65	34	41	31	58	48	36	58	44
Process	PA Boundary demarcation	18	35	83	14	47	19	61	50	65	88	48
	Protection System	33	27	77	53	13	29	61	43	41	74	45
	Research	36	41	76	31	42	49	67	62	59	47	51

Table 6. Summary of the METT Baseline Management Effectiveness Scores of Protected Areas Situated Within the Program Sites

					Score Obtai	ined (out of	<sup>-</sup> 100% Max	kimum Total)				
Elements	Criteria	KWFR	MANP	MKRNP	MMWFR	MVNP	NLNP	NSMNP	UMRPL	NNNP	MKNP	Average
		%	%	%	%	%	%	%	%	%	%	
	Resource Management	33	41	74	33	47	39	67	50	45	57	49
	Management of budget	22	48	65	44	47	26	59	40	45	60	46
	Maintenance of equipment	13	41	62	0	4	46	42	50	25	57	34
	Education and awareness	16	46	62	53	22	42	52	52	53	58	46
	State/commerci al neighbors	20	25	68	39	20	25	55	40	33	46	37
	Indigenous people's	47	70	73	0	0	0	73	71	49	58	44
	Local communities	53	60	58	69	51	49	71	69	55	71	61
	M&E	33	44	68	53	42	32	67	64	44	47	49
	Commercial tourism operators	16	51	29	0	42	0	38	36	23	57	29
	Overall for process	28	44	66	32	31	30	59	52	45	60	45
Output/ Outcome	Economic benefits	33	68	62	42	38	55	62	67	52	74	55
	Visitor facilities	11	49	52	3	27	7	56	36	16	69	33
	Condition of values	40	44	73	50	51	43	74	38	48	69	53
	Over-all for output/ outcome	28	54	62	31	39	35	64	47	39	66	47
	OVER-ALL SCORE (CORE QUESTIONS)	29	50	69	36	42	33	64	53	44	65	49
	ADDITIONAL POINTS (BONUS QUESTIONS)	4	14	6	5	5	6	4	8	7	9	7
	TOTAL OVER_ALL SCORE (CORE + ADDITIONAL POINTS)	34	64	75	41	47	39	68	61	51	74	55

## 4.3. SUMMARY FINDINGS

The key findings across the ten PA sites are:

- Based on the indicative range of scores of 68%-100% (highest possible score) set by B+WISER for high performers, there were three PAs with high baseline management effectiveness: MKRNP (75%), MKNP (74%), and NSMNP (68%). MANP (64%) and UMRBPL (61%) were medium performers while the rest of the PAs: NNNP (51%), MVNP (47%), MMWFR (41%), NLNP (39%) and KWFR (34%) were low performers.
- KWFR which underperformed in all six evaluation elements appears to need the most assistance. Except for NLNP which already has a recently PAMB approved management plan, the updating/refinement of the PA management plans of MMWFR and KWFR can serve as entry point for determining and providing targeted assistance.
- The ten sites generally scored well in terms of context (legal basis) as four PAs (MANP, MKNP, MKRNP, and NSMNP) already have their specific laws. However, the presence of the specific law and the prohibitions under this law is mostly unknown to on-site occupants and people in immediate areas (e.g., MANP), and this is one cause for violations. Four PAs (UMRBPL, MVNP, and NNNP) are already covered by Presidential Proclamation. MVNP and NNNP already have draft bills filed in Congress. However, the four other PAs are only initial components (NLNP, MMWFR, KWFR) and are in the process of preparing/enhancing their Presidential Proclamation that will place them under NIPAS so as to strengthen the legal basis of their being a protected area. Formal establishment under the NIPAS can help these PAs improve their management effectiveness as this will help them become priority of government (and donor) support, among other advantages.
- Relative to the other elements of evaluation, all the PAs assessed also generally performed better in planning with overall average score of 57%. This is because these PAs already have a management plan (initial management plan in the case of the four initial component PAs), although they mostly need updating and refinement. Among the sub-elements of planning, the planning for adjacent land and water use appeared the weakest, as the LGUs mostly need to integrate the PA plan with the LGUs and other land and water users along the boundaries of the PA.
- The PAs mostly underperformed in terms of inputs element which means the resources and activities needed to implement the management plan are mostly deficient or missing. In fact, except for MKRNP, NSMNP and MKNP, all PAs underperformed in all seven criteria assessed, which include number of staff, staff training, budget amount and security, and equipment. Law enforcement capability was also seen as weak in all sites, except for MKRNP.
- Except again for the high performing MKRNP, NSMNP and MKNP, all the PAs underperformed in terms of process element. Process criteria (total of 12) are the most numerous, and these include PA boundary delineation and demarcation, protection systems, research, resource management, equipment maintenance (as the PAs are even poorly equipped), budget management, education and awareness, IPs, M&E.

- All PAs generally weakly performed in terms of outputs and outcomes elements. A low rating in outcomes means the PA is still weak in terms of providing economic benefits for local communities as well as in maintaining or improving its biological, ecological, economic and socio-cultural values, which are the two criteria assessed. The outputs element only has one criterion: visitor facilities. These two elements (outputs and outcomes) are not as well developed in terms of criteria for assessment, and this is one area for future enhancement of the METT tool which needs to be tackled with BMB>
- MKRNP, MKNP and NSMNP which are the three PAs that also registered relatively higher performance in all the other elements, including inputs, registered relatively higher scores in both outputs and outcomesthe latter observation seems to indicate the critical role of context, planning, inputs and process in the ability of a PA to achieve desired results and outcomes. Thus, it is desirable for +WISER to provide technical assistance to improve the PA's performance in all of these elements, although focused only on key technical assistance areas that directly contribute to the Program deliverables in the seven Program sites.

## A. METT Scores and Threats

Table 7 compares the METT scores with the degree of threats identified during METT. Presumably, the higher the management effectiveness, the better able the PA will be in addressing the threats and challenges. For instance, NSMNP whose METT score was quite good at 68% may be in a better position to address the top threats, particularly that these are all perceived as medium only. Another interesting observation is that the PAs that garnered low METT scores also generally have more high and medium threats to address which supports the crucial ties between effective management and threats reduction. This also means the PA site managers need to improve their management effectiveness to be able to address these threats better.

PA Name	METT Core Score	METT Over-All Score	Number of Threats			
	Score	(+bonus points)	High	Medium		
Northern Sierra Madre Natural Park	64	68	0	6		
Upper Marikina River Basin Protected Landscape	53	61	18	27		
Kaliwa Watershed Forest Reserve	29	34	5	30		
Naujan Lake National Park	33	39	9	15		
Quinali A Watershed						
Mayon Volcano National Park	42	47	1	10		
Mt. Masaraga Watershed Forest Reserve	36	41	0	2		
Bago River Watershed	Bago River Watershed					
Mt. Kanlaon Natural Park	65	74	2	25		
North Negros Natural Park	44	51	2	22		
Mt Kitanglad Range Natural Park	69	75	0	10		
Mt Apo Natural Park	50	64	4	28		

Table 7.	METT	Scores	and	Threats

### B. Practical Importance of the METT Results

The METT scores of the PAs reveal in which of the six elements (context, planning, input, process, output, outcome) they are weak and need to give more attention to enable them improve their management effectiveness based on the framework of WCPA. Thus, the METT is an adaptive management tool since it enables the PA managers identify the constraints, needs and priority actions needed to enable the PA improve its management effectiveness. Improved management effectiveness can lead to better protection of values of the protected area and the achievement of its biodiversity conservation goals and objectives

The METT scores presented can also have other uses for varied users. For instance, the results of the assessment can be used together with other pertinent data (e.g., results of scientific assessment) in developing an action plan for improving management effectiveness of the protected area (done by B+WISER) or in updating its Protected Area Management Plan (PAMP). BMB can use the results in identifying institutional and donor support for weakly performing PAs and in the formulation of plans and projects for PAs. The on-going National PA System Master Plan, for instance, has used the METT data collected across projects as part of the stocktaking process of national PA system situation. The donor agencies can also use the assessment results in identifying projects and focusing their interventions. Repeated assessments can be used to assess the impacts of management interventions using the Theory of Change framework, including of donor projects. The METT results can also be tied up to an incentive system such as a national or regional award system for best performing or greatly improved PA to encourage the different PAs across the country to improve their performance. The award can be part of the regional PAMB summit of the national PAMB summit being held every two years by BMB.

#### C. Site Level Findings and Proposed Adaptive Management Actions

The management effectiveness findings are no longer discussed in detail per site on account of the length of this report and because they already form part of the individual METT activity report shared with the local stakeholders . They are nonetheless presented as part of the Table showing the draft action plan by site in Annex 5. Annex 5 provide the details of how each PA assessed their management effectiveness under each of the six elements of evaluation and the 30 criteria, including the challenges, issues they face and the facilitating and hindering factors for effective management. All of these inputted in the identification of adaptive management actions which the PAMB together with the PASU need to implement to address the gaps identified , which are also presented in Annex 5. The table in this Annex also shows the timeframe for implementing the action, who will implement the action including possible nature and sources of assistance that need to be leveraged from the outside (e.g., from B+WISER, private sector) and milestones that need to be monitored to indicate the achievement of the actions. One will notice that not all information in the action plan is complete, because the PAMB will still finalize and refine the action plan prior to approval.

It should also be explained that B+WISER has already been providing technical assistance to the different PAs to address the gaps in their performance. These ongoing assistance include law enforcement capacity building including the preparation of an ELE plan for each PA, PA plan updating and enhancement, sustainable financing training and workshops, forest restoration planning (part of resource management), biodiversity campaign and IEC materials preparation, vulnerability assessment training and assessment, PAMB resolution formulation training and writeshops, and enhancement of biodiversity monitoring through better link to environmental law enforcement using SMART LAWIN.

## 4.4. RAPID TRAINING NEEDS ASSESSMENT RESULTS

Table 8 shows the results of the rapid training needs assessment (TNA) administered by B+WISER among the PAMB and DENR participants of the METT assessment. The training topics that formed part of the TNA are supportive of six competency areas that PA managers need to have based on the results of the workshops on development of competency standards organized by BMB. The TNA aimed to evaluate the present capability and identify the learning gaps to be addressed on various topics related to protected area and environment and natural resources management. The results of this quick assessment will be considered in designing training and learning events for the PA managers to enhance their competency.

The results show that the training need covers broad range of topics that include forest and watershed management, biodiversity and park management, PES, valuation, environmental impact assessment, policy formulation, environmental governance, climate change vulnerability assessment and disaster risk reduction, entrepreneurship, and others which are now mostly covered by on-going B+WISER training assistance. Moreover, there is commonality of identified needed training topics across the sites. This means that cluster type of training can be done so that participants from the sites that require the same topics can be trained together. B+WISER can provide (has already provided) assistance for some of the training needs that directly contribute to Program targets such as on conservation financing (PES), environmental governance, forest land use planning (FLUP), policy formulation, vulnerability assessment, etc. The training needs have been prioritized further during the METT action planning and formed part of the PA's action plan for improving management effectiveness.

No.	PA Site	Top Training Topics Based on Competency Gap	Top Training Topics Based on Frequency
1	Upper Marikina River Basin	<ol> <li>Forest measurement and inventory systems</li> </ol>	1) Watershed Assessment
	Protected Area	<ol><li>Resource accounting and valuation</li></ol>	2) Protected Area Management
	Landscape	3) Enhancing FLUP	<ol><li>Payments for Ecosystem Services: Basics</li></ol>
	(UMRBPL)	<ol> <li>Biodiversity assessment</li> </ol>	<ol><li>Environmental Governance</li></ol>
		5) Environmental impact assessment	5) Environment and Natural Resources Management Policy Formulation
			<ol> <li>Compliance and Enforcement for Forest and Biodiversity Laws</li> </ol>
			7) Environmental Impact Assessment
			8) Integrated Environmental Management
			9) Biodiversity assessment
			10) Forest measurement and inventory systems
			11) Resource accounting and valuation
			12) Environmental impact assessment
2	Kaliwa Watershed	1. Entrepreneurship Development	1. Climate Change Adaptation and Disaster Risk Reduction
	Forest Reserve (KWFR)	2. Business/financial planning	2. Protected Area Management
	(100110)	3. Integrated Environmental Management	3. Environmental Governance
		4. Biodiversity Assessment	4. Integrated Environmental Management
		5. Applications of results of assessment and monitoring	5. Biodiversity Assessment
		6. Forest Measurements and inventory systems	6. Forest Measurements and inventory systems
		7. METT and implications	7. Biodiversity Monitoring Survey and Analysis

#### Table 8. Summary of the results of the rapid training needs assessment

No.	PA Site	Top Training Topics	Top Training Topics
		Based on Competency Gap	Based on Frequency
		8. Vulnerability Risk Assessment (VRA) Climate Change	and 8. Entrepreneurship Development
3	Naujan Lake National Park	1) Indigenous Peoples Concerns and Inclusion	1) Protected Area Management
	(NLNP)	2) Enhancing FLUP	2) Climate Change Adaptation and Disaster Risk Reduction
		3) Forest Measurements and Inventory system	3) Eco-tourism Development
		<ul> <li>4) Guided Self-Assessment and Environmental Governance and post assessment action planning</li> </ul>	4) Biodiversity assessment
		5) Environmental Impact Assessment	5) Biodiversity Monitoring Survey and Analysis
		6) Ecotourism Development	6) Watershed Assessment
		7) Watershed Monitoring and Analysis	7) Watershed Monitoring and Analysis
		8) Biodiversity Monitoring and Analysis	8) Environmental Impact Assessment
		METT and Implications	
		<ol> <li>Compliance and Enforcement for For Biodiversity Laws</li> </ol>	est
4	Mt. Masaraga	1) Payments for Ecosystem Services: B	asics 1) Protected Area Management
	Watershed	2) Watershed Monitoring and Analysis	2) Watershed Monitoring and Analysis
	Forest Reserve	3) Remote monitoring technologies	<ol> <li>Remote monitoring technologies</li> </ol>
		4) Vulnerability Risk Assessment (VRA) Climate Change	Reduction
		5) Climate Change Adaptation and Disa Risk Reduction	5) Eco-tourism development
		<ol> <li>Analysis of administrative and transac costs</li> </ol>	tions 6) Watershed Assessment
5	Mayon Volcano Natural Park	1) Entrepreneurship Development	<ol> <li>Climate Change Adaptation and Disaster Risk Reduction</li> </ol>
	(MVNP)	2) Business/financial planning	2) Protected Area Management
		3) Integrated Environmental Manageme	
		4) Biodiversity Assessment	4) Integrated Environmental Management
		<ol> <li>Applications of results of assessment monitoring</li> </ol>	
		6) Forest Measurements and inventory systems	6) Forest Measurements and inventory systems
		7) METT and implications	7) Biodiversity Monitoring Survey and Analysis
		8) Vulnerability Risk Assessment (VRA) Climate Change	and 8) Entrepreneurship Development
6	North Negros Natural Park	1) Watershed Assessment & Manageme	ent 1) Environment and Natural Resources Mgt. Policy Formulation
	(NNNP)	2) Forest Measurements and inventory systems	2) Forest Measurements and inventory systems
		3) Protected Area Planning	<ol> <li>Compliance and Enforcement for Forest and Biodiversity Laws</li> </ol>
		4) Vulnerability Risk Assessment (VRA) Climate Change	
		<ul><li>5) Climate Change Adaptation and Disa Risk Reduction</li></ul>	5) Payments for Ecosystem Services: Basics
		6) Conflict Identification & Management	6) Protected Area Management
			<ul> <li>7) Vulnerability Risk Assessment (VRA) and Climate Change</li> </ul>
7	Mt. Kanlaon Natural Park	1) Stakeholders Analysis	1. Protected Area Management/Park Management
		2) Management of Tenured Areas	2. Climate Change Adaptation and Disaster Risk Reduction
		3) Preparation of PAMB Operations Mar	

No.	PA Site	Top Training Topics Based on Competency Gap	Top Training Topics Based on Frequency
		4) Soil Conservation and Management	<ol> <li>Environment and Natural Resources Mgt. Policy Formulation and Analysis</li> </ol>
		<ol> <li>Enhanced Ancestral Domain Sustainable Development and Protection Plan (ADSDPP) Preparation</li> </ol>	
		6) Remote Monitoring Technologies	
		7) Climate Change Mitigation	
		<ol> <li>Preparation of Annual Work and Financial Plan and Budget Management</li> </ol>	
8	Mt. Kitanglad Range Natural	1) Entrepreneurship Development	<ol> <li>Climate Change Adaptation and Disaster Risk Reduction</li> </ol>
	Park (MKRNP)	2) Preparing/Enhancing Forest Land Use Plann (FLUP)	2) Biodiversity Assessment
		<ol> <li>Brokering, Negotiation, Facilitation and - Consensus Building</li> </ol>	3) Protected Area Management
		<ol> <li>Data Analysis and Knowledge Management</li> </ol>	4) Biodiversity Monitoring Survey and Analysis
		5) Forest Sampling	5) Eco-tourism development
		6) Growth and yield analysis (G/Y)	6) Environmental Governance
		7) Market Survey and Analysis	7) Watershed Assessment
		<ol> <li>Environment and Natural Resources Mgt. Policy Formulation</li> </ol>	
		<ol><li>METT and implications</li></ol>	
		10) Geographic Information system	
9	Mt. Apo Natural Park (MANP)	1) Protected Area Suitability Assessment	<ol> <li>Environment and Natural Resources Mgt. Policy Formulation</li> </ol>
		2) Benefit cost Analysis: basics	2) Forest Measurements and inventory systems
		3) Watershed Assessment & Management	<ol> <li>Compliance and Enforcement for Forest and Biodiversity Laws</li> </ol>
		<ol> <li>Forest Measurements and inventory systems</li> </ol>	4) Eco-tourism development
		5) Protected Area Planning	5) Payments for Ecosystem Services: Basics
		<ol> <li>Vulnerability Risk Assessment (VRA) and Climate Change</li> </ol>	6) Protected Area Management
		<ol> <li>Climate Change Adaptation and Disaster Risk Reduction</li> </ol>	<ol> <li>Vulnerability Risk Assessment (VRA) and Climate Change</li> </ol>
		8) Conflict Identification & Management	

## 4.5 INDIVIDUAL PERCEPTION SURVEY RESULTS

This section presents the results of the KII conducted for each of the ten PA sites to gain additional insights for improving PA management, particularly in terms of participation of IPs and the integration of gender concerns.

#### A. NSMNP

The three METT KII respondents in NSMNP were all male DENR-Region 2 representatives. They consider natural pride and heritage; biodiversity protection; and ecosystem services maintenance as the most significant values of the PA. Below is the complete list presented in order of perceived importance:

- 1. National pride/heritage
- 2. Biodiversity/habitat (endemic/key biodiversity)
- 3. Ecosystems services maintenance

- 4. Supports sustainable development
- 5. International commitment to global agreements (e.g., Convention on Biological Diversity)
- 6. Carbon stock area
- 7. Key biodiversity research area
- 8. Scenic and aesthetic beauty

The following are the identified issues and challenges of the PA in order of perceived importance:

- 1. Ineffective protected area management
- 2. Conflicting policies (re-natural resource management)
- 3. Lack of incentives both PA staff and PAMB communities
- 4. Poor enforcement of PA regulations/policies and ordinances
- 5. Lack of honest to goodness support from government and LGUs
- 6. Insufficient fund/equipment
- 7. Proposed road network
- 8. No permanent personnel managing the whole PA
- 9. Encroachment and kaingin making

To address the abovementioned gaps, the following are the key recommendations that have been identified:

- 1. Creation of PA management office with full staff compliments and financial resources;
- 2. Identification of clear boundary of the various conflicting policies;
- 3. Honest to goodness harmonization of plans of various stakeholders operating inside the PA (DENR, MGB, LGU, etc.);
- 4. Provision for enough fund to implement the approved Management Plan of PA;
- 5. Provision of good incentive for PA staff and PAMB; and
- 6. Assign full time staff.

The degree of working relationship between DENR and LGUs is rated very satisfactory since they both support the PASu in the management and protection of the PA. However, it has been mentioned that there is lack of commitment from LGUs. At present, they offer little financial and human resources. Further, some LGU development priorities (e.g., road project) contradict with PA management objectives.

Similarly, the relationship among DENR, LGU, local communities and IPs was perceived as harmonious since they all support proper PA management. For instance, there is complementation of resources and manpower in PA activities such as forest and marine protection. However, there are instances according to the respondents that LGUs influence local communities and IPs to advocate for LGU development priorities which are sometimes not in conformity with PA management objectives.

#### B. NLNP

The NLNP KII respondents were all PAMB members consisting of 10 male and 3 female. Figure 1 below shows that forty percent (40%) of the respondents perceive ecological balance, biodiversity protection and environment services as the most significant value of the PA. This is followed by biodiversity habitat and international significance, respectively. In Figure 2 and Figure 4, it can be noted that majority of the respondents believe that biodiversity and management of the PA are improving in the past three years. But they perceive that ecological integrity is slowly deteriorating (Figure 3).

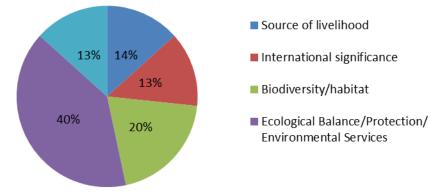


Figure 1. Perceived Most Significant Values of NLNP by KI

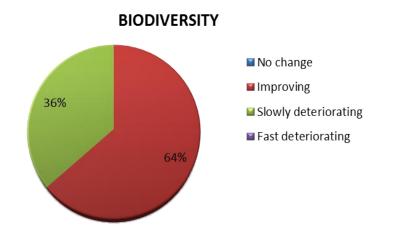


Figure 2. Observation of KIs on biodiversity of NLNP in the past 3 years

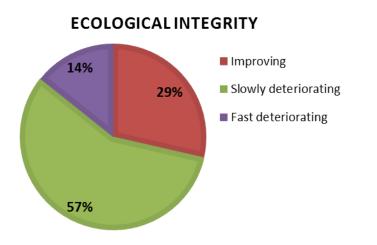


Figure 3. Observation of Kis on ecological integrity of NLNP over the past 3 years

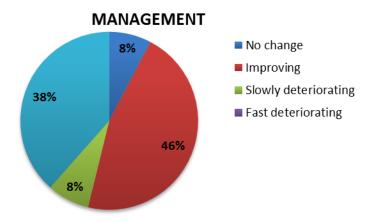
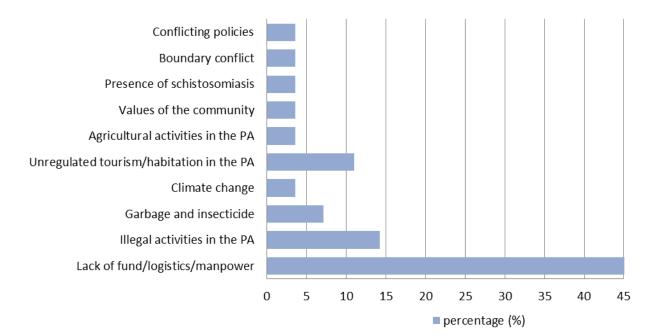


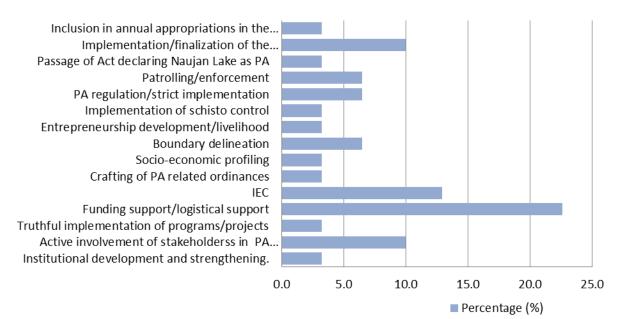
Figure 4. Observation of KIIs on ecological integrity of NLNP over the past 3 years

As shown in Figure 5, as perceived by the Kis the most significant issues and challenges of the PA are lack of fund, logistics and manpower (45%), illegal activities (14%) and unregulated tourism and habitation in the PA (11%), respectively.

Figure 6 shows that the key recommendations of the KIs to address these challenges and issue are: funding and logistical support (23%), IEC and implementation and finalization of the PA management plans (10%) and active involvement of the stakeholders in PA management (10%).



#### Figure 5. NLNP Most Significant issues/challenges of the PA



# Figure 6. Recommended key actions by KII to address gaps and challenges to PA management in NLNP

Based on Figure 7, the top threats in NLNP as perceived using KI are human intrusion, informal settlers and expansion of settlements (27%), overfishing/illegal fishing (17%) and wastes/pollutants (16%), respectively. These are similar threats identified during the threats assessment part of METT.

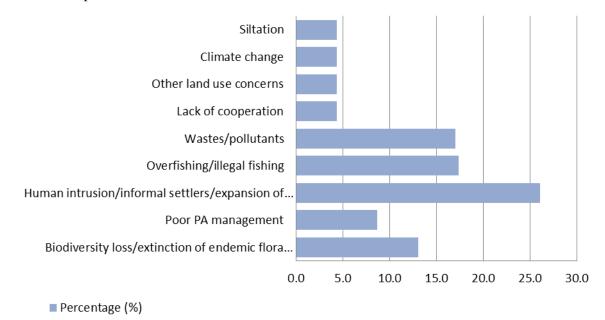


Figure 7. Perceived Top Threats to NLNP

As shown in Figure 8, more than fifty percent (50%) of the respondents believe DENR, LGU and PAMB have positive working relationship and there is close coordination among them. Whereas, less than twenty percent (20%) say there is lack of coordination brought about by the lack of personnel or manpower.

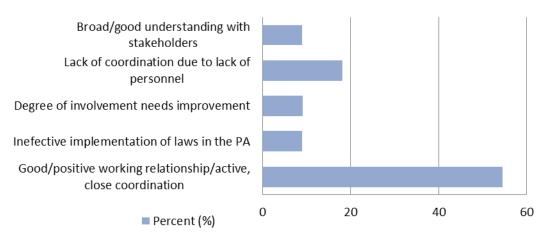
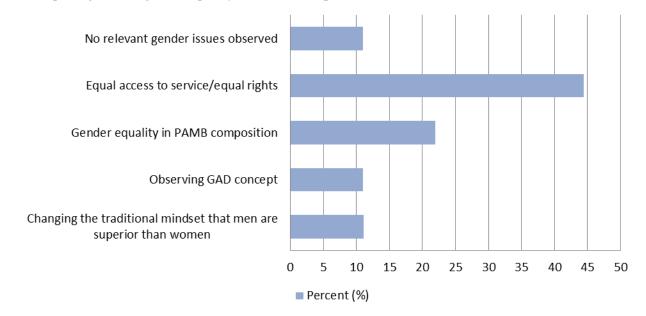




Figure 9 shows that the major gender challenges and issues in the PA are equal access to service and equal rights; and gender equality in PAMB composition.



#### Figure 9. Perceived challenges and issues related to gender in PA management in NLNP

Table 9 below summarizes the challenges faced by IPs and the corresponding recommendations to address them according to KIs.

Table 9.	NLNP Challenges of IPs in NLNP and possible recommendation to address the
	gap

Challenges		What can be done to address the challenge
Low education/literacy	level	Ensure equal rights
Inaccessibility of venue	e where meeting are held	
Cultural beliefs and proceedings of the contrast with the PA/la	actices which maybe in ke objectives	Consider indigenous way of life vs. modernization
Limited/no IP represer	tatives in PAMB	Have an extended membership in the PAMB to include IP representatives
Moral uncertainty/socia	al indifference	Give them security/assurance that they would not lost their lands
Poverty		Education

Moreover, IP participation in PA management is seen to be highly important as IPs play vital role as custodians and protectors of the environment. IPs have indigenous ways and environment friendly practices which contribute positively to the integrity of the PA according to the KIs.

Lastly, it is believed that the presence of an effective PAMB and secretariat is critical in having a successfully managed PA.

#### C. KWFR

The KII respondents in KWFR composed of barangay LGUs, DENR-region, IPs, PLGU and PO representatives, of which 11 are male and 2 are female. Figure 10 below shows that KIs believe that ecological balance, protection and environmental services are the most significant values of the PA. This is followed by watershed, source of livelihood and biodiversity/habitat, respectively. In Figure 11, it is shown that forty percent of the respondents believe that biodiversity, ecological integrity and management of the PA in the past 3 years are improving, but an equal percentage of participants believe these are deteriorating fast.

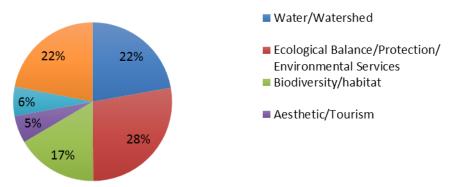


Figure 10. Most significant values of KWFR perceived by KIs

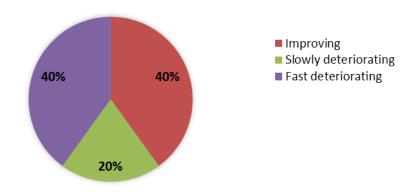


Figure 11. Observation of KIs on Biodiversity, Ecological Integrity and Management of KWFR over the past 3 years

As shown in Figure 12, the perceived most significant issues and challenges in KWFR are increasing population/influx of settlers in the PA (17%), lack of coordination (13%) and weak law enforcement, respectively. Figure 13 shows the corresponding recommendations to address the identified gaps, which are the provision for alternative source of livelihood (27%), strict law enforcement (19%) and relocation of all informal settlers (16%).

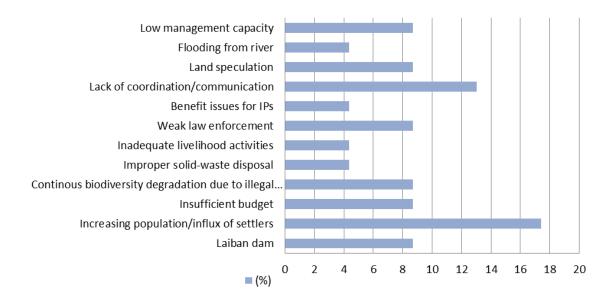


Figure 12. Most significant issues/challenges of the KWFR as perceived by KIs

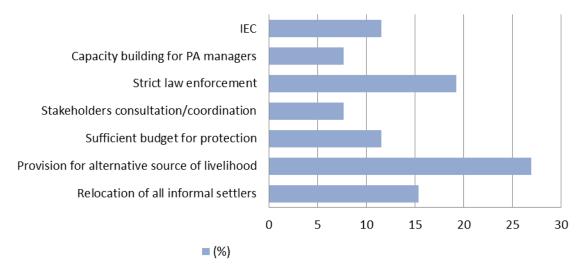
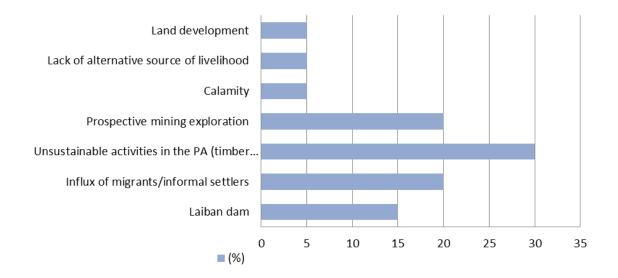
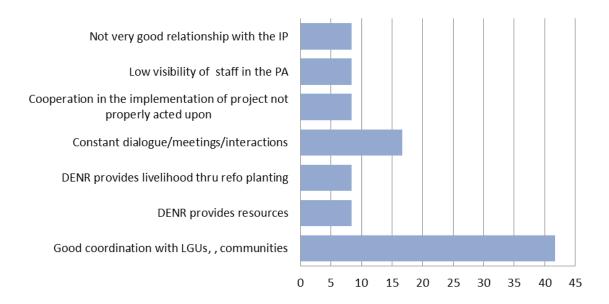


Figure 13. Kis' recommended key actions to address gaps and challenges in KWFR management

Based on METT KII result depicted in Figure 14, the perceived top threats in KWFR are unsustainable/illegal activities in the PA (illegal timber cutting, kaingin and charcoal making), influx of migrants/informal settlers and prospective mining exploration, respectively. Figure 15 shows that forty-two (42%) percent believe DENR, LGU and local community have good coordination among each other since dialogue, meeting and interaction constantly take place. Further, the results show that there is no issue as far as gender is concerned since there is greater number of literate women in the PA than men. With reference to Figure 16 and Figure 17, majority believe that women in KWFR do not face constraints in terms of equal rights. Physical limitation and endurance to reach distant area is seen to be their only challenge.









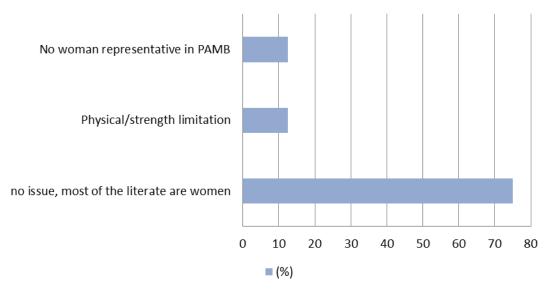


Figure 16. Perceived challenges and issues related to gender in KWFR management

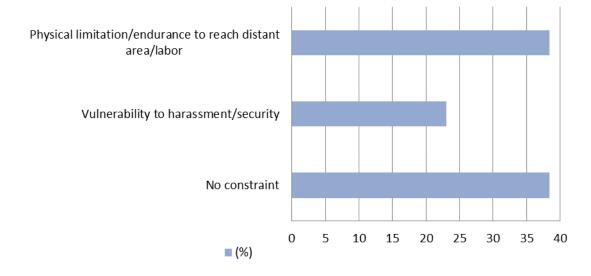
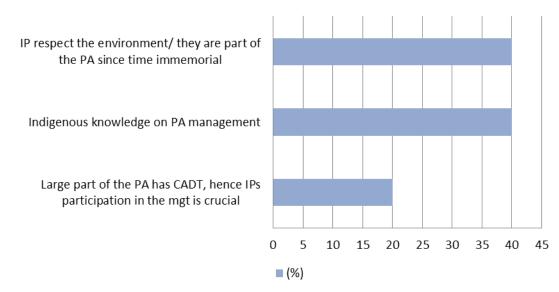
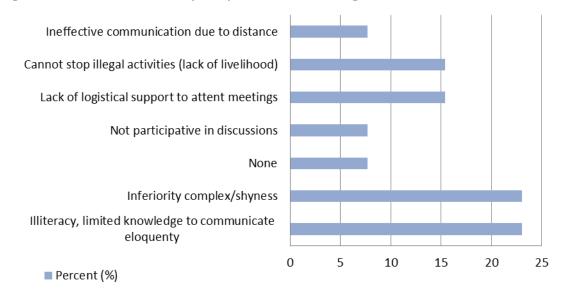


Figure 17. Perceived possible constraints faced by women in KWFR management

It can be noted in Figure 18 that all respondents see the value of IP participation in PA management because the IPs respect the environment and believe that they are part of it. They greatly contribute in environment protection and conservation since they possess the necessary skills and indigenous knowledge about environment-friendly practices. However, it can be observed in Figure 19 that inferiority complex/shyness and illiteracy; and limited knowledge to communicate eloquently are the perceived major hindrances for IPs to partake in PA management.



#### Figure 18. Perceived value of IP participation in KWFR management



#### Figure 19. Perceived challenges encountered by IP representatives in KWFR management

The KIs suggest the following actions to help improve the management of the PA:

- Ensure better communication and coordination among DENR, LGU, and IPs;
- Provide better livelihood opportunities for people to avoid them from encroaching inside the PA;
- Establish field offices so that PA occupants could easily access the services of the government. These field offices should be manned on a daily basis.
- Forge a conservation agreement with the IPs in the PA (with roles and responsibilities)

#### D. UMRBPL

The KII respondents in UMRBPL were LGUs, DENR, DPWH and NGO representatives composed of 5 male and 2 female. Figure 20 shows that the KIs perceive that water/watershed and ecological balance, protection and environmental services are the most significant values of the PA. Figure 21 shows that an equal percentage (29%) of the KIs believe that biological diversity is slowly deteriorating and remains the same in the past 3 years. Furthermore, the ecological integrity of the PA is thought to be slowly deteriorating by almost a third of the KIs (29%) but more respondents (28%) believe it is improving. On the other hand, almost same proportion of respondents believes ecological integrity is improving in the past 3 years. In Figure 23, it is shown that the majority of KIs recognize the improvement in PA management.

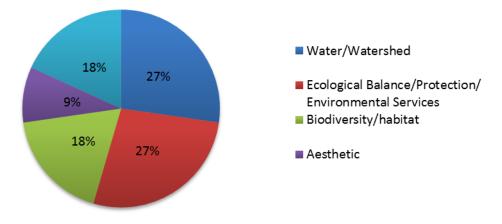


Figure 20. Most significant values of the UMRBPL according to the KIs

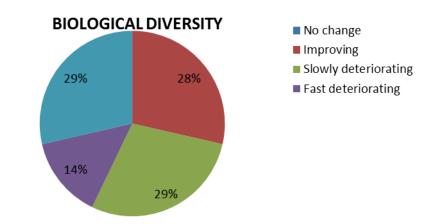


Figure 21. KIs' observation on Biodiversity, ecological integrity and management of UMRBPL over the past 3 years



Figure 22. Kls' observation on ecological integrity of UMRBPL over the past 3 years

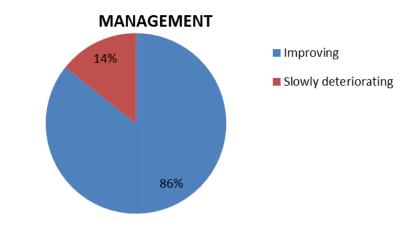
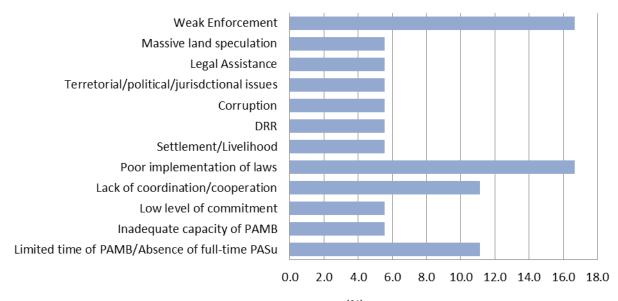


Figure 23. Kls' observation on management of UMRBPL over the past 3 years

The succeeding figures show findings from the KII regarding the most significant issues and challenges of the PA (Figure 24) and how to address them (Figure 25) top pressing threats (Figure 26), degree of relationship among stakeholders (Figure 27) gender and IP issues (Figure 28) and concerns and general recommendations (Figure 29) that can help improve the management of the PA.

The KIs, however, believe that the following are some of the problems/constraints to IP involvement in PA management:

- Needs improvement of the technical/scientific knowledge on forest protection;
- There are IP traditions in the usage of PA could be hazardous to the environment like kaingin (educating them on the effects to PA of their indigenous practices is helpful);
- They are vulnerable to the influence of some groups who have a vested interest in the IP areas situated within the PA.



## Most Significant issues/challenges of the PA





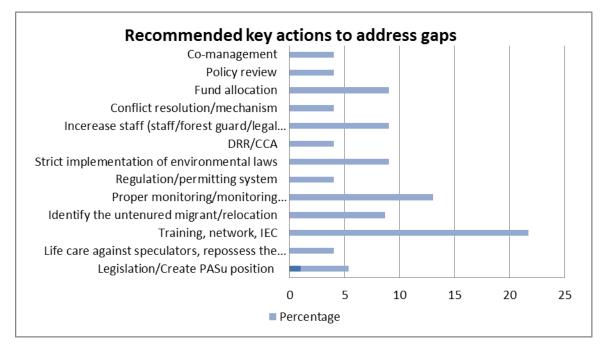


Figure 25. Key actions to address gaps and challenges to management of UMRBPL recommended by Kis

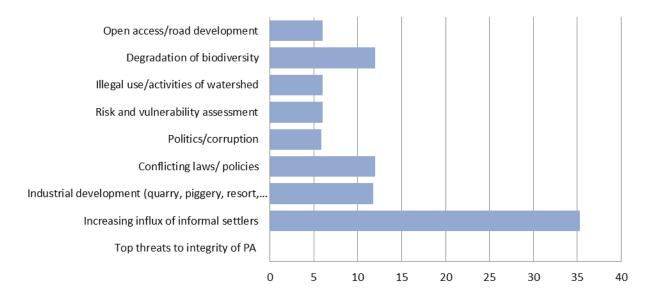


Figure 26. Top pressing threats to the integrity of the UMRBPL as perceived by KIs

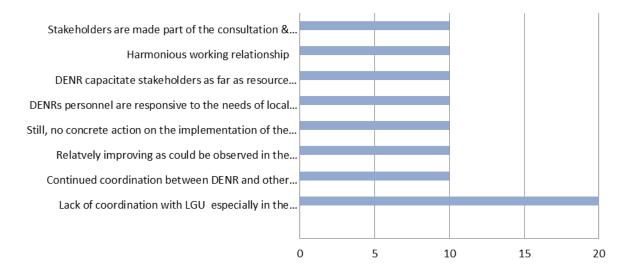


Figure 27. Degree of working relationship among DENR, LGUs, local communities and IPs in UMRBPL as perceived by KIs

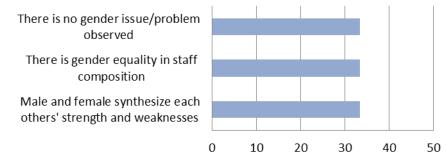
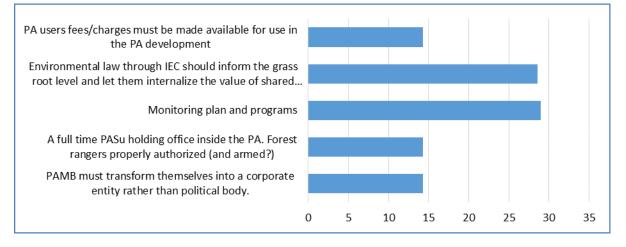


Figure 28. Perceived challenges and issues related to gender in UMRBPL management

According to the key informants, there are no existing issues in UMRBPL with regard to gender (Figure 28). However, they believe that vulnerability to harassment (especially sexual harassment) when enforcing environmental laws and physical constraint in reaching remote places are possibilities.

The KIs see the value of IP participation in PA management because of the following reasons:

- they possess indigenous knowledge, skills and practices that have been proven effective through time;
- IPs can be good partners for restoration and protection of the forest;
- It is very important that IPs be involved in the PA management since they are the front liners;
- IPs play a valuable role in PA management because of their knowledge about the environment, its characteristics and utilization since this was handed to them by their ancestors.





## E. MVNP

The three KII respondents for MVNP are all male LGU and NGO representatives. They consider the reputation of Mayon Volcano as world's most perfect cone shape volcano, biodiversity and habitat, and ecological balance and environment protection as the most significant values of the PA.

Table 10 shows the most significant issues and challenges faced by MVNP according to the KIs.

Issues/challenges	Recommended management solutions			
Rampant kaingin	Community enforcement Alternative livelihood			
Flora and fauna extraction	Alternative livelinood			
Sand deposits due to volcano				
Reforestation				
• Settlements	Policies /Legislations			
There are no boundaries or time frame. To perform the duties & responsibilities of PAMB-MVNP member volunteer	Transparent program implementations			

Table 10. Quinali "A" MVNP Most Significant issues/challenges of the PA

The following are the key actions recommended by KIs to address the gaps identified above:

- Initiate management reform by implementing the laws and rules provided for in the NIPAS Act of 1992 concerning PAMB Management and administration and as provided for in the MVNP-PAMB Amended Operations Manual of 2013, to enhance functional, transparent, accountable and participatory governance mechanism of the MVNP-PAMB.
- The Protected Area Management Plan be tied-up or integrated with the plans of the concerned Barangays, Municipality and DENR. This will result in a more realistic, factual and holistic development.
- More attention be given to enhance the quality of life in the Barangays, and decrease threats to the floral resources (wild plants being sold) in the protected area.
- The MVNP-PAMB program should facilitate the boundaries/on-the- ground delienation and demarcation of the PA and buffer zones

The following describes the degree of relationship between DENR, LGUs, local communities and IPs according to KIs:

- Serious relationship with strict implementation of programs
- Needs cooperation between DENR and local government, residents of the area around the protected area.

• Needing high degree of sincerity, dedication and honest intention to develop the MVNP as a premier tourist destination, and help the people in the area to achieve a more progressive way of life.

## F. MMWFR

The 11 KII respondents for MMWFR are all male representatives from DENR; provincial, municipal, city and barangay LGU; and the academe. According to the KIs, the most significant values of the PA pertain to water/watershed; ecological balance/protection and environment protection; and biodiversity/habitat, respectively (Figure 30). The KIs consider buffer zone land use management and boundary delineation; law enforcement and plan implementation; and absence of PA management plan as the major issues and challenges to the management of MMWFR (

Figure 31). Some key recommendations the KIs forwarded include the formulation of a wellcrafted PA management plan and its implementation; and establishment of management stations inside the PA and adjacent barangays (Figure 32). At present, working relationship between DENR and LGUs needs to be enhanced or enjoined (Figure 33) according to the KIs.

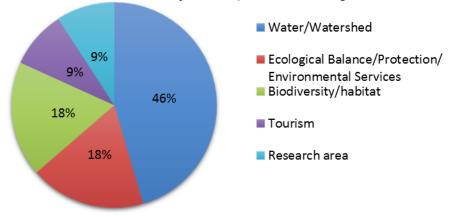
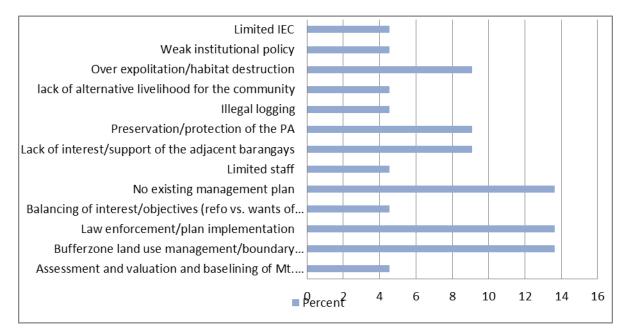


Figure 30. Quinali "A" MMWFR Most significant values of the PA





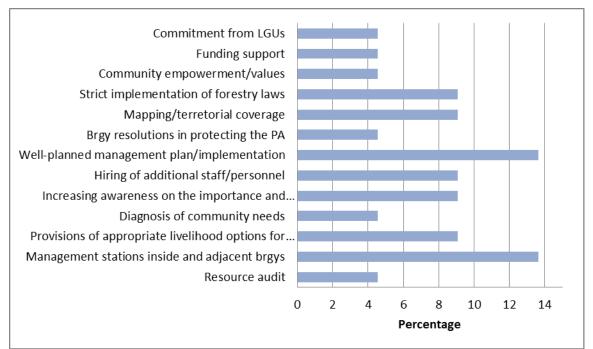


Figure 32. Quinali "A" MMWFR Recommended Management Solutions and Interventions

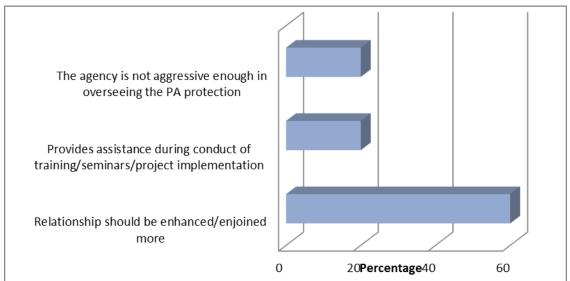


Figure 33. Quinali "A" MMWFR Degree of Working Relationship between DENR and LGUs

The following are other relevant information that can help improve the management of the PA according to the KIs:

- Expedite the process of making the Mt. Masaraga Watershed and Forest Reserve as a Protected Area under the NIPAS Law.
- Barangay Council/People be directly involved in protecting the PA. Support/cooperation of the local councils should be elicited & representatives from these agencies should be involved in all activities.
- Close coordination among line agencies/LGU officials/brgy officials etc.
- Put more weight on project implementation.

#### G. NNNP

The KII respondents for Bago NNNP were representatives from DENR, LGU and PO (ISF) composed of 6 male and 5 female. For them, the most significant value of the PA is habitat/biodiversity, followed by watershed. The biological diversity of the PA is perceived to be improving (28%), almost same number of respondents believe that is deteriorating (27%). Whereas, ecological integrity (Figure 36) and management of the PA (Figure 37) are believed to be improving in the past 3 years.

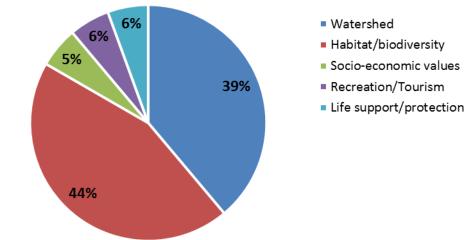
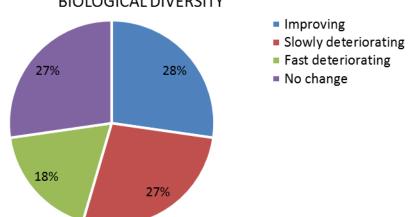


Figure 34. Most significant values of NNNP as perceived by KIs



**BIOLOGICAL DIVERSITY** 



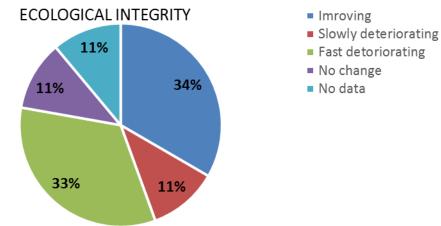


Figure 36. KI's observation on ecological integrity of NNNP over the past three years

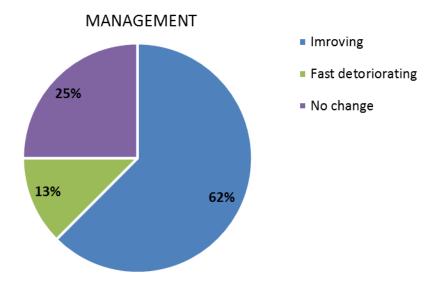
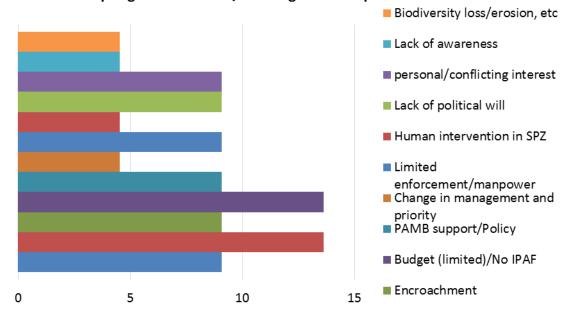


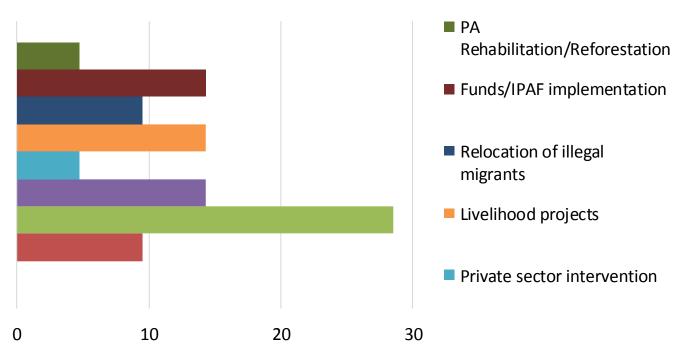
Figure 37. KI's observation on management of NNNP over the past three years

The succeeding figures ( to Figure 42) show the KIs' perception on the most significant issues and challenges in NNNP and their recommended key actions to address these gaps, degree of working relationship among various stakeholders, and gender and IP issues and concerns in relation to PA management.



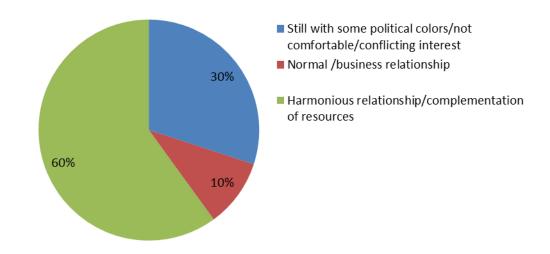
#### Top significant issues/challenges of the protected area





## Top management solutions/interventions

Figure 39. Key Actions recommended by KIs to address the identified gaps and challenges in NNNP management





Sixty percent (60%) of the respondents believe there is no gender issue in the PA. Possible constraints according to KIs of women in terms of their participation in PA management are shown in Figure 41 below.

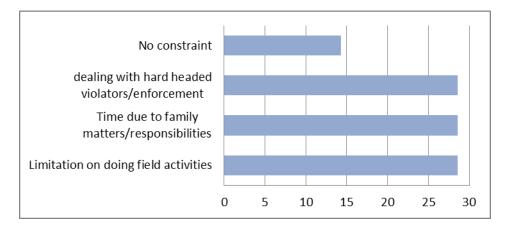


Figure 41. Kls' perception on possible constraints faced by women in PA management

Majority of the respondents also value the participation of IPs in PA management since the IPs contribute to the preservation of the PA's cultural importance. The KIs believe the IPs can also be empowered for enforcement activity. However, due to financial constraint, IPs can hardly partake in dialogues and have difficulty in attending meetings. The IP respondents view this as their major challenge in PA management (Figure 42).

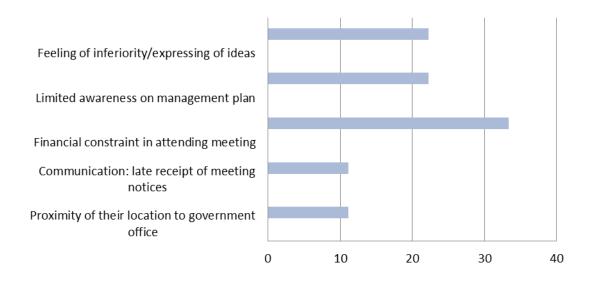


Figure 42. Bago NNNP Challenges of IPs in PA management

#### H. MKRNP

The nine (9) KII respondents in MKRNP were composed of PAMB, PENRO, PASu, EMS and PO representatives. As shown in Figure 43, the KIs consider biodiversity/habitat as the most significant values of the PA, followed by tourism. Figure 44 to Figure 46 show that over sixty percent (60%) of the respondents perceive the biological diversity, ecological integrity and management of the PA to be improving.

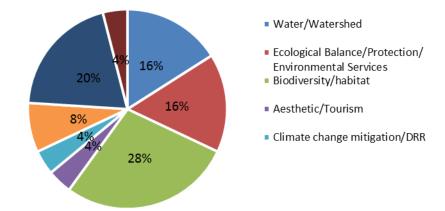


Figure 43. Most significant values of MKRNP as perceived by KIs

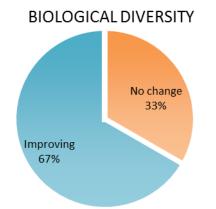


Figure 44. Kls' observation on biological diversity of MKRN over the past 3 years

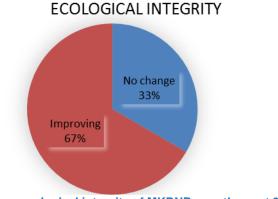
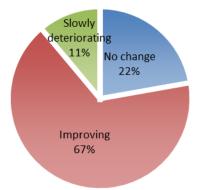


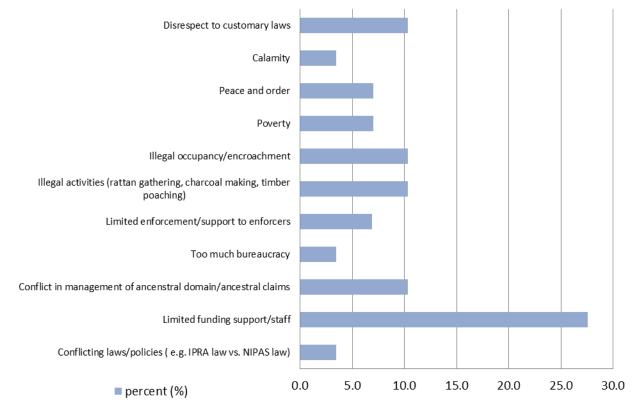
Figure 45. Kls' observation on ecological integrity of MKRNP over the past 3 years

#### MANAGEMENT

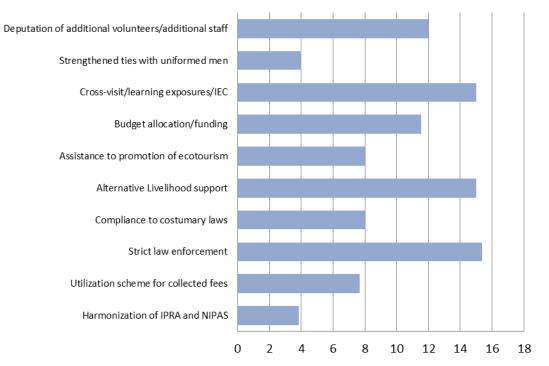




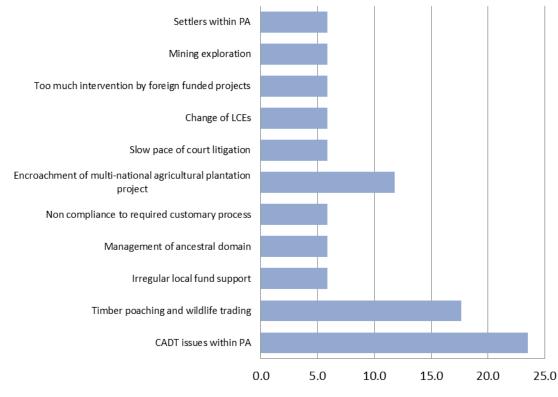
The succeeding figures (Figure 47 to Figure 53) show the most significant issues and challenges in MKRNP, recommended key actions to address these gaps, top pressing threats, degree of relationship among various stakeholders, gender and IP issues and concerns and general recommendations that can help improve the management of the PA based on the KI interview.



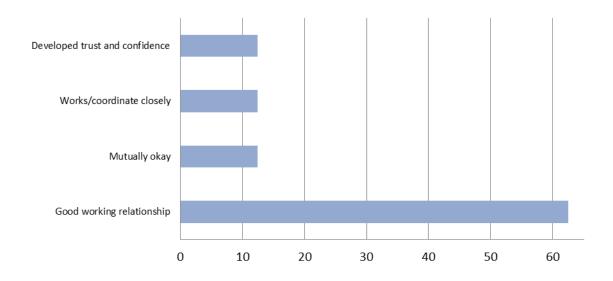












# Figure 50. KIs' perception of the degree of working relationship between DENR and LGUs in MKRNP

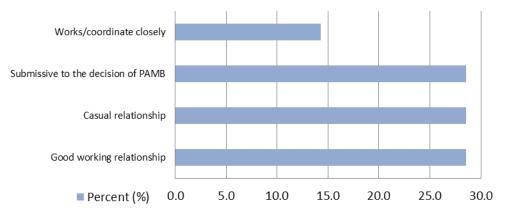


Figure 51. KI's perceived degree of working relationship between DENR and IPs in MKRNP

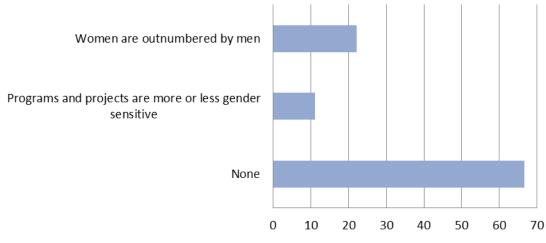


Figure 52. Perceived challenges and issues related to gender in MKRNP management

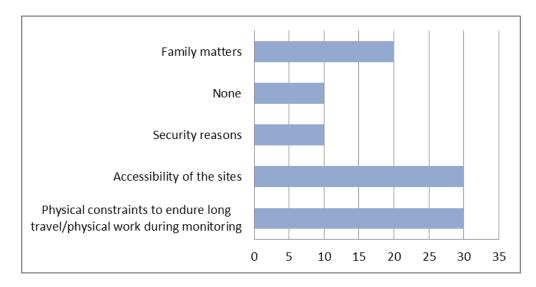


Figure 53. Kls' perception on possible constraints faced by women in PA management

The perceived values of IP participation in PA management are as follows:

- IPs participation in management of PA is very important considering that PA is their domain and part of their culture;
- Vital role in project planning and undertaking in the PA;
- Assistance in resolving/mediating in territorial conflicts;
- Indigenous system in protecting biodiversity.

On the otherhand, the challenges experienced by IPs in participating in PA management are:

- Being able to put forward conservation, preservation and protection versus resource destruction or utilization;
- Some IPs cannot articulate well their ideas during PAMB meeting especially if the mayors start speaking in English;
- IPs representation in the PAMB is limited.

The following are the other relevant information provided by the participants which according to them can help improve the management effectiveness of MKRNP:

- Further capacitate the PAMB/PA staff through training and field exposures to other successfully-managed PAs;
- To make the PA self-sustaining in the future, there is also a need for the PAMB to devise a system to collect additional revenues from the resource users. Likewise, to promote non-destructive livelihood activities (NDLA) to reduce the overdependence of upland communities in utilizing park resources;
- Recognize, protect & promote the primary rights & responsibilities of IPs in their ancestral domain within PA;
- Need to conduct hydrological study for the PAMB to know the basis of their decision in granting the right water resource use to the stakeholders/business entities who may use the water coming from Mt. Kitanglad;

- A need to make general assessment on the responsiveness of PA plans & programs in relation to PA conservation at the same time providing sustainable and non-destructive livelihood opportunities to the IPs;
- Securing FPIC is too expensive and not beneficial to the people living within the community;
- Retain the 70% or 100% on the fees collected from the protected area to be used in funding identified PA projects.

#### I. MANP

The KII respondents in MANP were composed of representatives from DENR, provincial, city/municipal and barangay LGU; NGOs; NCIP; and private sector consisting of 9 male and 7 female. Figure 54 below shows that thirty-five percent (35%) of the respondents believe that ecological balance, protection and environmental services are the most significant values of the PA. The PA's biodiversity and ecological integrity are perceived to be slowly deteriorating in the past 3 years (Figure 55 andFigure 56). At the same time, there is no perceived change in PA management as shown in Figure 57.

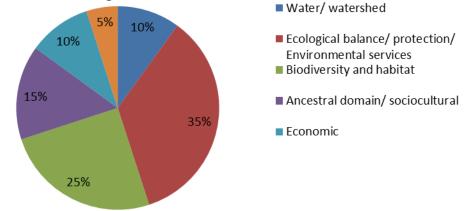


Figure 54. Most significant values of MANP as perceived by KIs

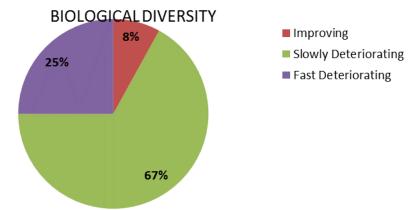


Figure 55. Kls' observations on biological diversity of MANP over the past 3 years

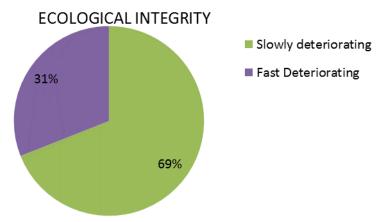


Figure 56. Kls' observations on Ecological Integrity of the PA over the past 3 years

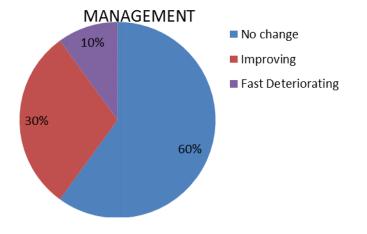


Figure 57 Kls' perception on management of MANP over the past 3 years

The succeeding figures (Figure 58 to Figure 68) show the results of KII on the most significant issues and challenges in MANP, recommended key actions to address these gaps, top pressing threats, degree of relationship among various stakeholders, gender and IP issues and concerns and general recommendations that can help improve the management of the PA.

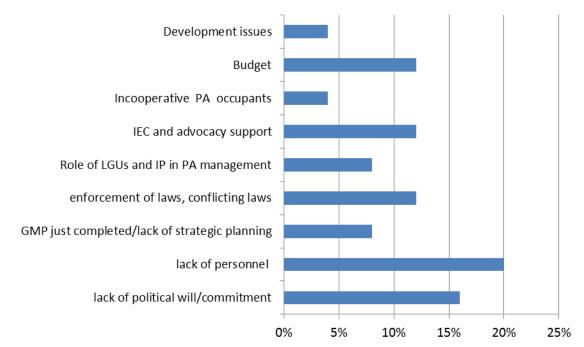


Figure 58. Most significant issues/challenges to management of MANP according to the KIs

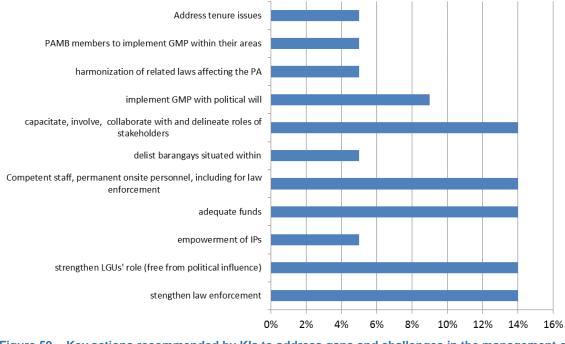


Figure 59. Key actions recommended by KIs to address gaps and challenges in the management of MANP

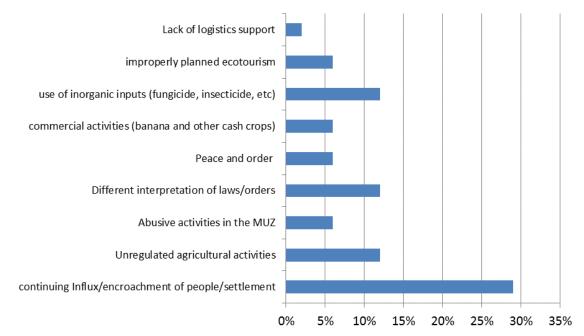
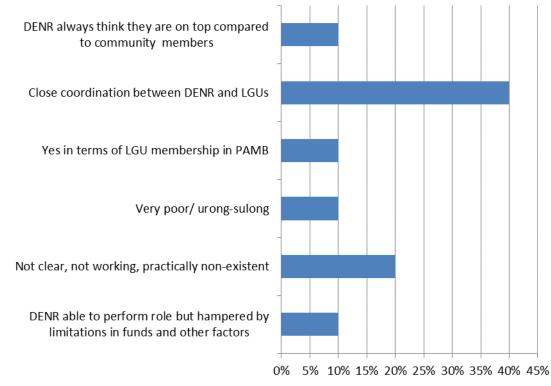
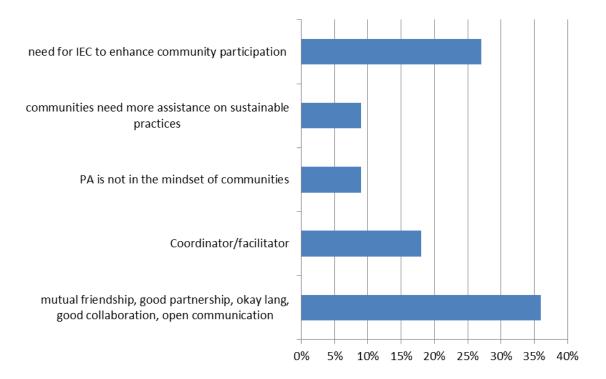


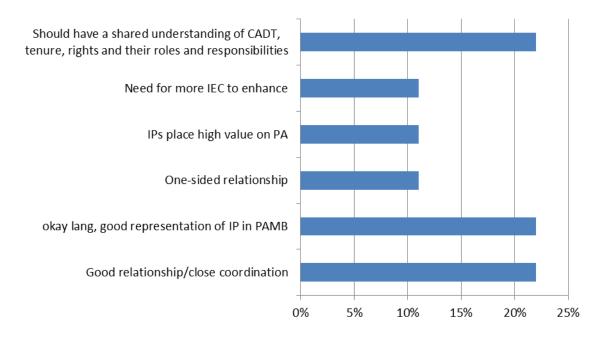
Figure 60. Top threats to the integrity of MANP according to the KIs













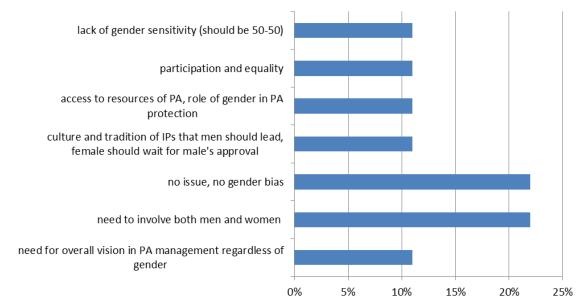


Figure 64. Perceived challenges and issues related to gender in MANP management

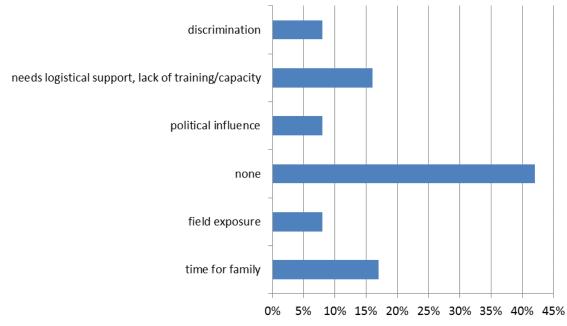


Figure 65. Perceived possible constraints faced by women in PA management

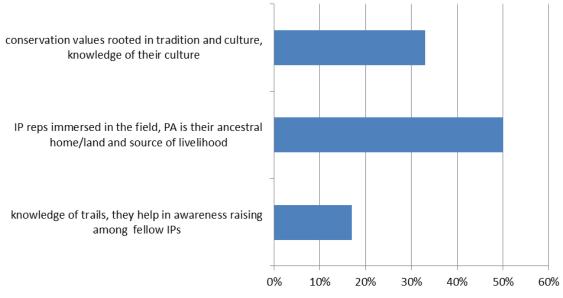


Figure 66. Perceived value of IP participation in PA management

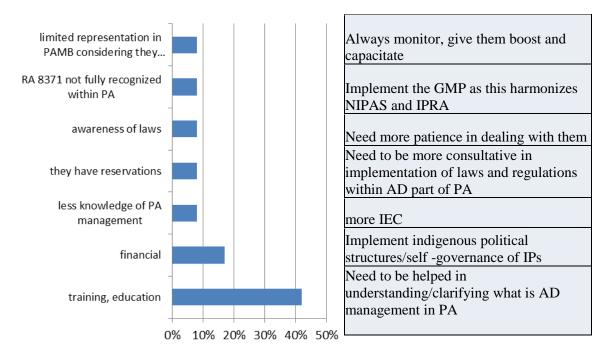


Figure 67. Perceived challenges to IPs's involvement in MANP management & recommendations to address them

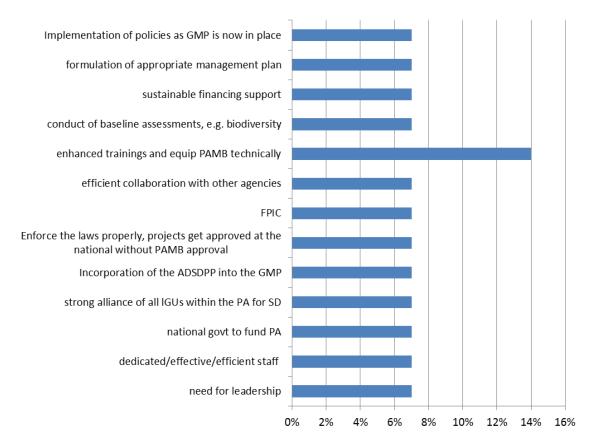


Figure 68. Other relevant information that can help improve the management of MANP based on KII

# 5. **RECOMMENDATIONS**

The METT assessments have provided an overview of the management effectiveness situation in the ten PA sites covered by B+WISER Program. The gaps, issues and challenges have been identified by the PA managers through the METT process, who themselves determined needed actions to address these. The threats that undermine the different biological, ecological, and socio-economic and cultural values of the PA have been also identified. In addition, the KII and rapid training needs assessment have provided additional information that can help improve PA management.

Based on the assessment results, the following are recommended for B+WISER interventions:

- 1) Conduct a follow on meeting with the PAMB Technical Working Group (TWG) or PAMB ExeCom, if not the PAMB en banc to revisit the METT action plans produced based on the results of the assessment to further prioritize (and formally approve) them, particularly in view of new developments on the site and new information from various technical assessments conducted by B+WISER. The cost-effective actions that would result in multiple and greater impacts and that which are aligned with Program deliverables and Theory of Change (TOC) should be prioritized for B+WISER assistance in each of the PA sites. These would include the: a) establishment of the Integrated Protected Areas Fund (IPAF) in sites that still do not have this fund (e.g., KWFR, NLNP, MMWFR), assistance in accessing IPAF, and revenue generation through Payment for Ecosystem Services (PES) and other mechanisms to enhance the availability of funding for the PAs, b) strengthening environmental law enforcement, including the formulation of support PAMB regulations and LGU support ordinances to address threats to the PA c) forest restoration activities, d) strengthening the PAMB as a management and governing body, and improving its external linkages, including partnership with the private sector, e.g., tapping their corporate social responsibility program, and increasing collaboration and partnership with local communities and tenure holders, e) biodiversity monitoring (SMART and LAWIN) linked to law enforcement, f) PA plan updating/enhancement and integration with local development and land use plans, and g) IEC and biodiversity campaign support.
- 2) Closely monitor the status of implementation of the METT action plan in all ten PAs.
- 3) Design and implement training activities based on the results of the TNA and link training prioritization with closely related program deliverables such as increased economic benefits and enhanced ecosystems resilience.
- 4) Document and share best practices in PA management including on how key issues like massive in-migration and PA encroachment, illegal structures, environmental law enforcement, and PES are addressed and promote cross-learning among the ten PA site or expose them to other PAs in other regions that are performing well.
- 5) Share METT assessment results with DENR, including the national policy and action implications and recommendations from these results.

# 6. REFERENCES

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- La Vina, Tony G.M., James L. Kho and Mary Jean Caleda (2010), "Legal Framework for Protected Areas: Philippines", <u>Guidelines for Protected Area Legislation</u>, IUCN-Environmental Law Programme Publications (EPLP) Series No. 81, Gland:IUCN.
- Stolton, Sue, Marc Hockings, Nigel Dudley, Kathy MacKinnon, Tony Whitten and Fiona Leverington. 2007. Management Effectiveness Tracking Tool Reporting Progress at Protected Area Sites: Second Edition

### ANNEX 1. METT ORIENTATION AND BASELINE ASSESSMENT WORKSHOP PARTICIPANTS

### 1) NSMNP METT Workshop Participants

No.	Names	Sex	Org Type	Agency Sector	Position	Year	Date
1	John Asakiwat	М	CivSo c	PAMB	PO representative	2013	10 to 11 July
2	Nestor Guiquing	М	LGU	PAMB	MENRO, Designated, LGU Rep - San Pablo	2013	10 to 11 July
3	Ramon Guilllermo	М	LGU	PAMB	LGU Rep - Dinapigue	2013	10 to 11 July
4	Romulo M. Forto Jr.	М	LGU	PAMB	LGU Rep - Dinapigue	2013	10 to 11 July
5	William Savella	Μ	LGU	PAMB	PENRO	2013	10 to 11 July
6	Jose P. Wanol	М	LGU	PAMB	PO Rep - San Mariano	2013	10 to 11 July
7	Reynold B. Gumiran	М	LGU	PAMB	LGU Cabagan	2013	10 to 11 July
8	Nestor Lorenzo	М	DENR Reg	PAMB Secretariat	PAWCZMS OIC CENRO Palanan	2013	10 to 11 July
9	Baltazar Ranin	М	DENR Reg	PAMB Secretariat	CENRO Palanan	2013	10 to 11 July
10	Nora Catariorin	F	DENR Reg	PAMB Secretariat	Computer operator, DENR PENRO	2013	10 to 11 July
11	Fe T. Ibarra	F	DENR Reg	PAMB Secretariat	Administrative Assistant, CENRO Palanan	2013	10 to 11 July
12	Ronel V. Dicolen	М	DENR Reg	PAMB Secretariat	GIS, DENR PENRO	2013	10 to 11 July
13	Leah L. Ranin	F	DENR Reg	PAMB Secretariat	Extension Cashier	2013	10 to 11 July
14	Arturo Umengan	М	LGU	PAMB	MENRO, LGU Divilacan	2013	10 to 11 July
15	Danilo A. Domingo	М	LGU	PAMB	City ENR Officer - Ilagan	2013	10 to 11 July
16	Edward R. Cabantac	М	LGU	PAMB	PLGU Isabela, PASu	2013	10 to 11 July
17	Reynalyn Semania	F	LGU	PAMB	IP rep - Dinapigue	2013	10 to 11 July
18	Warlito A. Yadao	М	LGU	PAMB	MENRO, San Mariano	2013	10 to 11 July
19	Jessell A. Wanol	F	LGU	PAMB	Barangay Captain, San Mariano	2013	10 to 11 July
20	Felicitas Gamonad	F	DENR Regio n	DENR PENRO	DENR PENRO	2013	10 to 11 July
21	Eufemia Daliong	F	LGU	PAMB	Planning Officer, PENRO Office	2013	10 to 11 July
22	Cecilia BS Domingo	F	LGU	PAMB	LGU Divilacan	2013	10 to 11 July

cMabuwaya Foundation24Luis CaraanMCivSo cPAMBWWF - Abuan Watershed2025Lorna GatonFCivSo cPAMBLGU Divilacan c2026Gina MatusalemFLGUPAMBLGU Divilacan c2027John M. BulauanMLGU non-PAMBnon-PAMBLGU - City of Ilagan Divilacan2028Marissa VillamoraFLGU cnon-PAMBBrgy Dipudo, Divilacan2029Rody AlmonteMCivSo cPAMBIP rep - San Mariano c2030Jiovani ImpielMCivSo cnon-PAMBIP rep - San Mariano c2031Dares EstevesM cCivSo cnon-PAMBIP rep - San Mariano c2032Joel ViloriaMCivSo cnon-PAMBIP rep - San Mariano c20	- Year	'ear Date
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c     c       36     Minda Prado     F     CivSo     non-PAMB     IP rep - San Mariano     20	2013	12 10 to 11 July
	2015	10 to 11 July
	2013	013 10 to 11 July
57 Nebita vitoria F Civso non-PAMB IP rep - San Mariano 20	2015	

# 2) NLNP METT Workshop Participants

No.	Names	Sex	Org Type	Agency Sector	Position	Year	Date
1	Narciso V. Nartatez	Μ				2013	27-28
							Aug
2	Nicodemus P.	М	LGU	LGU	Inspector	2013	27-28
	Garachico						Aug
3	Adriano M. Ramos	М	LGU	LGU	Brg. Chair	2013	27-28
					_		Aug
4	Gregorio A. Geducos	М				2013	27-28
							Aug
5	Editha Gawad	F				2013	27-28
							Aug
6	Rosita J. Salvador	F				2013	27-28
							Aug

No.	Names	Sex	Org Type	Agency Sector	Position	Year	Date
7	Regal R. Izon	М	Academe	MINSCAT	Asst. Prof.	2013	27-28
8	Kyle Cielo	F	NGO		Field Ops Mgr.	2013	Aug 27-28
							Aug
9	Marilyn Alcanices	F	PAGO		Prov. Agriculturist	2013	27-28 Aug
10	Mely M. Catapang	F	PPDO		PDO IV	2013	27-28
							Aug
11	Racquel M. Umali	F	LGU		MPDC	2013	27-28
12	Leo G. Capon	М	DENR	CENRO	EMS II	2013	Aug 27-28
12	Leo G. Capoli	IVI	DEINK	CENKO		2013	Aug
13	Roberto C. Lining	М	LGU		Brgy Capt	2013	27-28
	_						Aug
14	Manuel P. Delica	Μ	LGU	LGU	MPDC	2013	27-28
15	Hipolito V. Manibo	M	LGU	LGU	Brgy. Capt.	2013	Aug 27-28
10		111	100	200	Digy: Cupt.	2013	Aug
16	Norberto Almendras	М	LGU	LGU	Brgy. Capt.	2013	27-28
17			LOU	LOU		2012	Aug
17	Danilo R. Caspe	Μ	LGU	LGU	Brgy. Capt.	2013	27-28 Aug
18	Edgar C. Genabe	М	LGU		CDA II	2013	27-28
							Aug
19	Luis Mangubat	М	LGU		Brgy Capt	2013	27-28
20	Leopoldo Solares	M	LGU		Brgy. Sec	2013	Aug 27-28
20	Leopoido Solares	141	LUU		Digy. See	2015	Aug
21	Crispin Fronda	М				2013	27-28
		-				2012	Aug
22	Leola F. Fronda	F				2013	27-28 Aug
23	Rayson C. Alfante	М				2013	27-28
							Aug
24	June David	F				2013	27-28
25	Ric Natividad	M				2013	Aug 27-28
23		141				2013	Aug
26	Jose Manalo	М	LGU		Barangay	2013	27-28
					Captain		Aug
27	Nick Soria Sr.	Μ				2013	27-28
							Aug

## 3) KWFR METT Workshop Participants

No.	Names	Sex	Org Type	Agency Sector	Position	Year	Date
1	Sofia P. De la Rosa	F	LGU	Barangay LGU	Barangay Captain	2013	4-5 Sep
2	Romulo Lacuesta	М	LGU	Barangay LGU	Barangay Captain	2013	4-5 Sep
3	Jose P. Cabanero	М	LGU	Barangay LGU	Barangay Captain	2013	4-5 Sep
4	Gil F. Zubiaga	М	LGU	Barangay LGU	ABC Chairperson	2013	4-5 Sep
5	Louie Concepcion	Μ	CivSoc	IP Group	Chieftain	2013	4-5 Sep
6	Octavio Planada	М	CivSoc	IP Group	Coordinator of IP Group	2013	4-5 Sep
7	Victor M. Borreo	М	LGU	Barangay LGU	Barangay Captain	2013	4-5 Sep
8	Rodrigo de la Cruz	М	LGU	Barangay LGU	Barangay Captain	2013	4-5 Sep
9	Edgardo D. Palacio	Μ	CivSoc	IP Group	Chieftain	2013	4-5 Sep
10	Carlos Inofre Jr.	М	LGU	Municipal LGU	MENRO	2013	4-5 Sep
11	Adorable Sunga	М	LGU	Municipal LGU	MPDC	2013	4-5 Sep
12	Cesar Cortez	М	LGU	Provincial LGU	Planning Officer III	2013	4-5 Sep
13	Dominador San Pablo	Μ	CivSoc	Triple M Coop	President	2013	4-5 Sep
14	Merly Iquin	F	DENR Reg	DENR 4A	Chief, PAWSCMZ, CENRO Real	2013	4-5 Sep
15	Ruth A. Unlayao	F	DENR Reg	DENR 4A	Chief Planning	2013	4-5 Sep
16	Reynulfo Juan	М	DENR Reg	DENR 4A	RED Region 4A	2013	4-5 Sep
17	Adelaida Avellanada	F	DENR Reg	CENRO Real	OIC, Admin Officer	2013	4-5 Sep
18	Dominador San Pablo	М	DENR Reg	CENRO Real	Bill collector?	2013	4-5 Sep

## 4) UMRBPL METT Workshop Participants

No.	Names	Sex	Org Type	Agency Sector	Position	Year	Date
1	Willie Reyes	М	LGU	LGU	Chief Executive Assistant	2013	13-15 Aug
2 3	Adorable Sunga	Μ	LGU	LGU	MPDC Tanay, Rizal	2013	13-15 Aug
	Carlos Inofre Jr.	Μ	LGU	LGU	MENRO Tanay, Rizal	2013	13-15 Aug
4	Yoniza Matamis	М	LGU	LGU	MENRO Designate, Baras, Rizal	2013	13-15 Aug
5	Jacinto Guevara	М	DENR Reg	DENR	Project Devt Officer, Quezon City, CENRO	2013	13-15 Aug
6	Cecilia Laceste	М	LGU	LGU	Barangay Captain, Pintong Bukawe, San Mateo, Rizal	2013	13-15 Aug
7	Julie L. Bolanos	М	LGU	LGU	Barangay Captain, Antipolo City	2013	13-15 Aug
8	Alberto Palad	F	LGU	LGU	Barangay Captain, Antipolo City	2013	13-15 Aug
9	Eloisa Joy L. Tolentino	М	LGU	Barangay LGU	Kagawad, Barangay San Jose	2013	13-15 Aug
10	Willian Palaypayon	М	DENR Reg	DENR	RTD for Forestry	2013	13-15 Aug
11	Liesl C. Lim	Μ	CivSoc	Private	PDRF Smart	2013	13-15 Aug
12	Lester Mar Queta	М	LGU	Barangay LGU	Barangay Calawis	2013	13-15 Aug
13	Desiree D. Garcia	М	CivSoc	IP	Tribal Leader, Calawis Autonomous Citizens	2013	13-15 Aug
14	Primitivo R. D. Perez II	М	Other	DPWH	EMS II/DPWH Region 4A	2013	13-15 Aug
15	Aida R. Ceniza	М	DENR Reg	DENR	Forester 1, Asst. PASu for UMRBPL	2013	13-15 Aug
16	Ray D. Crisostomo	М	LGU	DENR	PENRO	2013	13-15 Aug
17	Ruth A. Unlayao	М	DENR Reg	DENR	PMB Chief	2013	13-15 Aug
18	Reynulfo Juan	М	DENR Reg	DENR	RED Region 4A, PAMB Chair	2013	13-15 Aug
19	Arnulfo Hernandez	М	DENR Reg	DENR	RTD PAWZCM	2013	13-15 Aug
20	Teofilo Salcedo	Μ	CivSoc	NGO		2013	13-15 Aug
21	Leo Paulo Ferrer	М	DENR Reg	DENR	EO11, DENR FMB	2013	13-15 Aug
22	Lionella Mindaros	F	DENR Reg	DENR	CDO URMBPL	2013	13-15 Aug
23	Geremai Buenaventura	F	DENR Reg	DENR	CDO URMBPL	2013	13-15 Aug
24	Edward Rudolf David	М	DENR Reg	DENR	DENR Calabarzon	2013	13-15 Aug
25	Antonio Guntang	М	DENR Reg	DENR	DENR Calabarzon	2013	13-15 Aug

No.	Names	Sex	Org Type	Agency Sector	Position	Year	Date
26	Robert Ruiz	Μ	LGU	LGU-	DENR Calabarzon	2013	13-15 Aug
				Marikina			
27	Dominic Reambillo	М	LGU	LGU-	LGU Rodriguez	2013	13-15 Aug
				Rodrigue	_		_
				Z			
28	Gregorio T.	F	DENR	DENR	Forest Ranger, DENR	2013	13-15 Aug
	Camado		Reg		Rizal		_

## 5) NNNP METT Workshop Participants

No.	Names	Sex	Org Type	Position	Year	Date
1	Alfonso T. Cabahug	М	DENR-NNNP	Staff	2014	27-28 May
2	Andres T. Untal	М	DENR-PENRO	PENR Officer	2014	27-28 May
3	Jimmy C. Toreno	М	NNNISFI	NNNISFI President		27-28 May
4	Rowena T. Parcon	F	PEMO	PDO IV	2014	27-28 May
5	Remia C. Buaron	F	DENR- CENRO	Chief, CBFM	2014	27-28 May
6	Noel G. Arellano	М	NGO	Former Manager	2014	27-28 May
7	Zosimo Cadena	М	DENR- CENRO	Staff	2014	27-28 May
8	Ray B. Suminguit	М	LGU	MENRO	2014	27-28 May
9	Wendell Aburido	М	LGU	MENRO Staff	2014	27-28 May
10	Rosie P. Pablico	F	DENR-PENRO	Chief, PAWCZMS	2014	27-28 May
11	Jomark Sinugbuhan	М	LGU	MENRO Staff	2014	27-28 May
12	Hazel L. Acse	М	NCIP	CDO III	2014	27-28 May
13	Noel D. Tan	М	LGU	MENRO-Designate	2014	27-28 May
14	Conrado Marquez	М	DENR- REGION	OIC-RTD PAWCZMS	2014	27-28 May
15	Emelyn S. Peñaranda	F	DENR- REGION	OIC-Chief, PAWD, PAWCZMS	2014	27-28 May
16	Edwin Andrada	М	LGU	DMO IV	2014	27-28 May
17	Jose Lopez	М	LGU	Staff, Solid Waste	2014	27-28 May
18	Myla C. Reyno	F	DENR-ORED	Regional Planning Assistant	2014	27-28 May
19	John Paul Silva	М	BACIWA	W.M.O	2014	27-28 May
20	Leovilyn Acepcion	F	LGU	MPDC	2014	27-28 May
21	Livino B. Duran	М	DENR- REGION	RTD, FMS	2014	27-28 May

## 6) MKNP METT Workshop Participants

No.	Names	Sex	Org Type	Agency Sector	Position	Year	Date
1	Carlo J. Eran	М	PEMO	DENR	CDA-I	2014	29-30 July
2	Ruby A. Sueño	F	ITC-IP	LGU	Secretary	2014	29-30 July
3	Loreto Sanchez	М	LGU	LGU	OIC - CEMO	2014	29-30 July
4	Carlos E. Natuel Jr.	М	BRGY.	LGU	Brgy. Captain	2014	29-30 July
5	Dennis D. Valencia	М	BRGY.	LGU	Brgy. Captain	2014	29-30 July
6	Cynthia B. Pabillaran	F	MKNP	DENR- PENRO	Forest Extension Officer	2014	29-30 July
7	Jeremae O. Gelasan	F	MKNP	DENR- PENRO	Technical & Support Staff	2014	29-30 July
8	Maria Godeth Cañedo	F	MKNP	DENR- PENRO	Technical & Support Staff	2014	29-30 July
9	Danilo B. Maramag	М	MKNP	DENR- PENRO	EMSI/Coordinator FPLE	2014	29-30 July
10	Reymando Hurtado	М	MKNP	DENR- PENRO	Acting HRMO	2014	29-30 July
11	Ma. Theresa A. Robles	F	MKNP	DENR- PENRO	Acting PIO/MKNP Staff	2014	29-30 July
12	Angelo Bibar	М	MKNP	DENR- PENRO	Biologist	2014	29-30 July
13	Henry S. Santoluma	М	MKNP	DENR- PENRO	Technical & Support Staff	2014	29-30 July
14	Rene V. Bolo	М	EDC	NGO	Supervisor	2014	29-30 July
15	Rodel E. Cadigal	М	LGU	LGU	ENRO Staff	2014	29-30 July
16	Romeo R. Labasores	М	BRGY.	LGU	Brgy. Councilor	2014	29-30 July
17	Remedios A. Peñacuba	F	BRGY.	LGU	Brgy. Councilor	2014	29-30 July
18	Reynic Alo	М	MUAD	NGO	Executive Director	2014	29-30 July
19	Ma. Esther Flaviano	F	LGU	LGU	CDS II	2014	29-30 July
20	Roger Kirk Torres	М	BRGY.	LGU	Brgy. Captain	2014	29-30 July
21	Hernani Abindan	М	BRGY.	LGU	Brgy. Captain	2014	29-30 July
22	Noel S. Macado	М	MKNP	DENR- PENRO	Dep. PASu	2014	29-30 July
23	Rodulfo M. Dulla	М	BRGY.	LGU	Brgy. Captain	2014	29-30 July
24	Gaudioso T. Olvido	М	BRGY.	LGU	Brgy. Captain	2014	29-30 July
25	Jovencio T. Caunas	М	LGU	LGU	Agro-Forestry Incharge	2014	29-30 July
26	Teresita M. Endrina	F	BRGY.	LGU	Brgy. Captain	2014	29-30 July
27	Lea B. Javier	F	PPDO	Province	PDO III	2014	29-30 July
28	Gerard Nava España	М	EDC	NGO	РСО	2014	29-30 July
29	Arbie Sacapaño	М	BRGY.	LGU	Brgy. Councilor	2014	29-30 July
30	Leonisa S. Impil	F	IP	Cabagtasan TC	Brgy. Chairman	2014	29-30 July
31	Junar Sevilla	М	LGU	LGU	CDA-I	2014	29-30 July

No.	Names	Sex	Org Type	Agency Sector	Position	Year	Date
32	Angel Vic Labrado	М	BRGY.	LGU	Alt. Member	2014	29-30 July
33	Cecil L. Cañada	М	MKNP	DENR- PENRO	PASu	2014	29-30 July
34	Joemarie Hermogenes	М	LGU	LGU	CDA-I	2014	29-30 July

## 7) QAW METT Workshop Participants

No.	Names	Sex	Org Type	Agency Sector	Position	Year	Date
1	Joseph D. Guiriba	М	DENR Reg		DENR Region 5	2013	17 to 18 July
2	Edsel Mateum	М	DENR Reg	PAMB- Masaraga	DENR Region 5 - CENRO	2013	17 to 18 July
3	Jorge Valencia	М	CivSoc	PAMB- MVNP	Ligao City Water District	2013	17 to 18 July
4	Hermogenes B. Burce	Μ	LGU	PAMB - Masaraga	Ligao CENRO	2013	17 to 18 July
5	John S. Palacio	М	LGU	PAMB- MVNP	Camalig PAMB	2013	17 to 18 July
6	Edel Matusalem	М	DENR Reg	PAMB- MVNP	Mayon Volcano Natural Park	2013	17 to 18 July
7	Justino Balingbing	М	LGU	PAMB- MVNP	OIC-MENRO	2013	17 to 18 July
8	Paula Jean Sariba	F	DENR Reg		DENR/PASu Staff	2013	17 to 18 July
9	Elmer Lorica	М	LGU	PAMB- MVNP	P. B. Daraga	2013	17 to 18 July
10	Manuel P. Alagaban	М	LGU	PAMB- MVNP	Mayon Volcano Natural Park	2013	17 to 18 July
11	Leonardo Ondiz	М	LGU	PAMB - Masaraga	M. A. Oas LGU	2013	17 to 18 July
12	Jesus Pichuela	М	LGU	PAMB- MVNP	Albay	2013	17 to 18 July
13	Romulo N. Llona	М	LGU	PAMB- MVNP	LGU Guinobatan	2013	17 to 18 July
14	Lito B. Pebre	М	LGU	PAMB – Masaraga	LGU Ligao	2013	17 to 18 July
15	Regino B. Broncate	М	LGU	PAMB- MVNP	LGU Tabaco	2013	17 to 18 July
16	Juan Belardo	М	DENR Reg		DENR Region 5, PAWCZMS	2013	17 to 18 July
17	Alberto B. Gonzales	М	CivSoc	PAMB Masaraga	Bicol University	2013	17 to 18 July
18	Ernesto D. Perez	М	LGU	PAMB- MVNP	P. B. Buyoan, Legazpi City	2013	17 to 18 July

No.	Names	Sex	Org Type	Agency Sector	Position	Year	Date
19	Eduardo Laguerta	М	Other	PAMB- MVNP	Phivolcs	2013	17 to 18 July
20	Nilo B. Mar	М	LGU	PAMB- MVNP	Muladbucad P	2013	17 to 18 July
21	John Edward B. de la Cruz	М	DENR Region		Computer operator, DENR Bicol River Basin	2013	17 to 18 July
22	Madelyn D. Moral	F	DENR Region		Forester/DENR Region 5	2013	17 to 18 July
23	Analin M. Alagbate	F	DENR Region		PASu Staff, DENR-CENRO Guinobatan	2013	17 to 18 July
24	Joel B. Perez	М	DENR Region	PAMB- MVNP	PAMB Legazpi City	2013	17 to 18 July
25	Jaime F. Lardizabal	М	LGU	PAMB- MVNP	Mayon Volcano Natural Park	2013	17 to 18 July
26	Joselito P. Estrella	М	LGU	PAMB Masaraga	LGU Ligao City	2013	17 to 18 July
27	Christopher Camacho	М	DENR Region		DENR	2013	17 to 18 July
28	Nerissa Herrero	F	DENR Region		Engineer, DENR Region 5	2013	17 to 18 July
29	Diwani D. Coquia	F	LGU	PAMB - Masaraga	Masaraga, Balogo, Oas	2013	17 to 18 July
30	Judy Bala	F	LGU	PAMB- MVNP	PPDO Albay	2013	17 to 18 July
31	Mary Jean R. Araya	F	DENR Reg	PAMB - Masaraga	Assistant PASu - Mount Masaraga	2013	17 to 18 July
32	Allan Realubit	М	LGU	PAMB - Masaraga	Punong Barangay (PB), Balogo,	2013	17 to 18 July
33	Sesinando S. Santayana	М	LGU	PAMB - Masaraga	MPDC Polangui	2013	17 to 18 July
34	Imelda D. Baltazar	F	LGU		OIC-PENRO Albay	2013	17 to 18 July
35	Pobelo M. Florece	М	DENR Reg		RTD Research, DENR, Region 5	2013	17 to 18 July
36	Estaquio Nolasco	М	DENR Reg	PAMB- MVNP	PA Staff, DENR Region 5	2013	17 to 18 July

## 8) MKRNP METT Workshop Participants

No.	Names	Sex	Org Type	Agency Sector	Position	Year	Date
1	Fe Dongallo	F	LGU	PAMB	MENRO, Manolo Fortich	2013	6-7 August
2	Eduardo Rautraut	Μ	CivSoc	PAMB	President, TMS	2013	6-7 August
3	Leodie Caare	М	CivSoc	PAMB	Kitanglad Guard Volunteer	2013	6-7 August
4	Joy Faith Obsioma	F	LGU	PAMB	Information Officer	2013	6-7 August
5	Rey B. Baula	Μ	LGU	PAMB	Mayor, Sumilao	2013	6-7 August
6	Fe Hilario	F	LGU	PAMB	MENRO	2013	6-7 August
7	Albert M. Mabaquaio	М	CivSoc	PAMB	President, Green Mindanao	2013	6-7 August
8	Leonardo Genesis Calingasan	М	LGU	PAMB	Mayor	2013	6-7 August
9	Datu Balite Diosdado Mendoza	М	LGU	PAMB	Tribal Leader	2013	6-7 August
10	Edwin Rivera	Μ	LGU	PAMB	Barangay Captain	2013	6-7 August
11	Julius M. Parian	М	DENR Region	PAMB	CENRO Valencia	2013	6-7 August
12	Leonilo Bago	Μ	LGU	PAMB		2013	6-7 August
13	Romeo Diana	Μ	LGU	PAMB	Municipal Administrator	2013	6-7 August
14	Orlanda Saway	F	CivSoc	PAMB	Daughter, Chair, Council of Elders	2013	6-7 August
15	Danilo Longjas	М	LGU	PAMB	Barangay Chair, Songco	2013	6-7 August
16	Limuel Sale	Μ	LGU	PAMB	Planning Officer	2013	6-7 August
17	Vergel Tarino	Μ	CivSoc	PAMB	Son of Tribal Leader	2013	6-7 August
18	Carl Binayao	Μ	Other	PAMB	NCIP	2013	6-7 August
19	Dominador Decano	Μ	CivSoc	PAMB	Project Coordinator, KI	2013	6-7 August
20	Daniel Somera	М	DENR Reg	PAMB	Deputy PASu	2013	6-7 August
21	Benedicto Galosino	Μ	LGU	PAMB	Desk Officer	2013	6-7 August
22	Merlita L Tabamo	F	LGU	PAMB	Management Information Specialist	2013	6-7 August
23	Romeo Taclindo	М	DENR Region	PAMB	EMS 11 PENRO	2013	6-7 August
24	Achilles Camaso	М		PAMB	Forester	2013	6-7 August
25	Rodolfo Sotelo	М	DENR Region	PAMB	Deputy PASu	2013	6-7 August
26	Zorabel May Ramos	F	LGU	PAMB	Forester	2013	6-7 August
27	Felix Mirasol	М	DENR Region	PAMB	PASu/PENRO	2013	6-7 August
28	Dennis Ruel Yam-oc	М	LGU	PAMB	Barangay Captain	2013	6-7 August
29	Antonio Pacheco	М	LGU	PAMB	MENRO OIC	2013	6-7 August
30	Marcelino Bayawan	М	Other	PAMB	PTA BOT	2013	6-7 August
31	Glenn Balistoy	М	DENR Region	DENR	OJT DENR	2013	6-7 August

No.	Names	Sex	Org Type	Agency Sector	Position	Year	Date
32	Nolie Lindayao	М	DENR	DENR	OJT DENR	2013	6-7 August
			Reg				
33	Mark Bonnie Canon	Μ	DENR	DENR	OJT DENR	2013	6-7 August
			Region				
34	Roger Sam Villamor	М	DENR	DENR	OJT DENR	2013	6-7 August
			Region				

## 9) MANP METT Workshop Participants

No	Names	Sex	Year	Date
1	Helen A. Diana	F	2013	12-13 Sep
2	Eriberto O. Vecino Sr	М	2013	12-13 Sep
3	Fermin E. Aguan	М	2013	12-13 Sep
4	Camila S. Infiesto	F	2013	12-13 Sep
5	Cleotilde O. Penonia	F	2013	12-13 Sep
6	Cherryl D. Navarete	F	2013	12-13 Sep
7	Julie E. Onac	F	2013	12-13 Sep
8	Peter Renon D. Sombilon	М	2013	12-13 Sep
9	Djoanna Lyne S. Demonteverde	F	2013	12-13 Sep
10	Nenita T. Alongo	F	2013	12-13 Sep
11	Judy Arlene S. Soriano	F	2013	12-13 Sep
12	Randy Adlawan	М	2013	12-13 Sep
13	Abe Jonathan de la Cruz	М	2013	12-13 Sep
14	Rommel D. Abi	М	2013	12-13 Sep
15	Vevencio Tesoro	М	2013	12-13 Sep
16	Alma de la Paz	F	2013	12-13 Sep
17	Consuelo O. Paramio	F	2013	12-13 Sep
18	Zaldy D. Sumangil	М	2013	12-13 Sep
19	Algier B. Ramos	М	2013	12-13 Sep
20	Ruel L. Ayog	М	2013	12-13 Sep
21	Delfin M. Lanzo	М	2013	12-13 Sep
22	Isidro P. Guarra	М	2013	12-13 Sep
23	Proceso D. Gida	М	2013	12-13 Sep
24	Daniel A. Uy	М	2013	12-13 Sep
25	Edgardo Linsag	М	2013	12-13 Sep
26	Cristobal D. Cadungon	М	2013	12-13 Sep
27	Fatima K. Magulama	F	2013	12-13 Sep
28	Ruby C. Cabiles	F	2013	12-13 Sep
29	Roger Roldan	М	2013	12-13 Sep
30	Lisandro M. Alquieza	М	2013	12-13 Sep
31	Ronnie Guangco	М	2013	12-13 Sep
32	Porferia C. Lapitan	М	2013	12-13 Sep
33	Walter L. Ruizo	М	2013	12-13 Sep
34	Edgar C. Aquiatan	М	2013	12-13 Sep
35	Arnold Aquino	М	2013	12-13 Sep

### ANNEX 2. ENHANCED METT QUESTIONNAIRES USED IN THE METT ASSESSMENTS IN THE SEVEN B+WISER PROGRAM SITES

### **Reporting Progress at Protected Area Sites: Data Sheet 1**

	Name, affiliation and contact details for person responsible for completing the METT (email etc.)												
Date assess	ment c	carried c	out										
Name of pro	tected	area											
WDPA site of found on ww	· ·												
Designation			Natior				IUCI	V Category*		Interr		(please age)	see 2 <sup>nd</sup>
Country													
Location of possible ma			(provinc	e and	lif								
Date of esta	blishm	ent											
Ownership c	letails	(please	tick)		State			Private	ate Community		ty	Otl	her
Managemen	nt Autho	ority											
Size of prote	ected a	rea (ha)											
Number of s	taff	Perma Protec	anent/ cted Area	 a	Perma Detaile			Casual or Contractual		Volunte	eer	TOTA	<u>AL</u>
Current ann excluding sta				F	Recurrent	t (oper	rationa	l) funds	Proj func		other sup	oplemer	ntary
What are the the area is d			for which	ו					1				
List the two			ted area	mana	agement	object	tives						
Managemen	nt objec	tive 1											
Managemen	nt objec	tive 2											
No. of peopl	e invol	ved in c	ompletir	ig ass	essment								
Including: (tick			P	PA staff			Other PA agency sta	aff		NGO			
boxes) Local community					onors			External e	xperts		Other		
Please note association organisation	with a	particula				an							

	Information on International Designations									
UNESCO World Heritag	ge site (se	e: whc.unesco	o.org/en/list)							
Date listed	Sit	e name	Site area	Geographical co-ordinates						
Criteria for designation (i.e. criteria i to x)										
Statement of Outstandin Universal Value	g									
Ramsar site (see: www	v.wetland	ls.org/RSDB/	)							
Date listed		Site name	Site area	Geographical number						
	Reason for Designation (see Ramsar Information Sheet)									
UNESCO Man and Bios	sphere Re	serves (see: v	www.unesco.org/mab/wr	nbrs.shtml)						
Date listed	Sit	e name	Site area Total: Core: Buffer: Transition:	Geographical co-ordinates						
Criteria for designation										
Fulfilment of three function of MAB (conservation, development and logistic support.)										
Please list other designa	tions (i.e. /	ASEAN Heritag	e, Natura 2000) and any s	supporting information below						
Name:	Deta	ail:								
Name:	Deta	ail:								
Name:	Deta	Detail:								
Name:	Deta	Detail:								
Name:	Deta	ail:								
Name:	Deta	ail:								

#### **Protected Area Threats: Data Sheet 2**

Please tick all relevant existing threats as either of high, medium or low significance. Threats ranked as of **high** significance are those which are seriously degrading values; **medium** are those threats having some negative impact and those characterised as **low** are threats which are present but not seriously impacting values or **N/A** where the threat is not present or not applicable in the protected area. **No data** means no available information to rank threats. **PLEASE PROVIDE IN THE REMARKS COLUMN (and attach details if available) THE BASIS USED FOR RATING THE LEVEL OF EACH THREAT.** 

(Markahan ang mga banta sa pinangangalagaang pook ng alinman sa high, medium or low significance. (Mga banta na may markang **high** ay yung nagbibigay ng seryoso o malubhang banta sa pagbaba ng kalidad ng pinangangalagaang pook; **medium** kung ito ay may katamtamang negatibong epekto sa pinangangalagaang pook at yung may markang low ay mga bantang nararamdaman sa kasalukuyan ngunit mababa o hindi gaanong masama ang epekto sa kalidad ng pinangangalagaang pook. Markahan ng **N/A** kung walang banta sa pinangangalagaang pook o hindi angkop ang banta sa pinangangalagaang pook. **No data** kung walang impormasyon na nalalaman upang magbigay ng marka.)

In assessing the degree of threat, the following factors that may affect the seriousness of the impact should be considered (Ang mga sumusunod na konsiderasyon ay maaaring magamit sa pagtasa o pagtantiya ng kalubhaan ng banta). Details about the threats will enable specific management actions to be recommended The Facilitator should probe, all pertinent information should be documented:

- Nature of threat (Uri ng banta)- different activities can result in different levels of threats, or risks, some can have more serious impact than others (mining vs. agriculture, hook and line fishing vs. trawl fishing), some can be persistent or not easily addressed
- Timing/Duration/Frequency/Trend and location of threat (Panahon o tagal ng pananatili ng banta at kinalalagyan nito)- for example, impact of hunting will be greater during mating or breeding season; encroachment in the strict protection zone may pose greater threat than in the multiple use zone, increasing over the years, temporary or permanent?
- **Magnitude/scale of threat (Laki/Sukat ng Banta)-** includes size (e.g., of deforested area), volume (e.g., of pollutants produced, timber poaching vs. illegal logging, subsistence vs. commercial), level of toxicity (e.g., of pesticides)
- Threats can have cumulative impacts (Ang mga banta ay maaaring may nagsasamasamang epekto na mas higit pa sa orihinal na banta)- impacts of threat can accumulate over time, or synergize with each other to result in greater amount of threat (1 threat +1 threat=>2 threats)
- **Exposure and sensitivity/vulnerability** of the affected system (particularly in relation to climate change, e.g., deforestation along high slopes may have greater impact than on level land, critically denuded watershed more prone to flooding than healthy watershed)
- **Remedies/ management actions already in place** to address the threats and the effectiveness of these actions

PLEASE WRITE DOWN THE ESTIMATED AMOUNT and other pertinent details of the threat, e.g., Actual estimated number & names of firms engaged in pollutive activity, number/% of households engaged in wildlife hunting, % of fishers, type of pesticide or pollutant, etc..

RANKING	PREVIOUS DEFINITION	ADDITIONAL QUALIFIERS/CUT-OFFS (AS OF 15 MARCH 2013)
		(Note: to get percentages based on markers identified per threat, e.g % of. area, % of households engaged in activity )
High	Those threats which are seriously degrading values	>10% to 100%
Medium	are those threats having some negative impact	>5% to 10%

RANKING	PREVIOUS DEFINITION	ADDITIONAL QUALIFIERS/CUT-OFFS (AS OF 15 MARCH 2013)
		(Note: to get percentages based on markers identified per threat, e.g % of. area, % of households engaged in activity )
Low	threats which are present but not seriously impacting values	<5% to >0%
N/A	where the threat is not present or not applicable in the protected area	Zero or Not Applicable to site
No Data	no available information to rank threats	Should apply to: <b>No Idea</b> if present or absent or threat is known to exist but no quantification possible (i.e., Data Deficient, needs more information)

1. Residential and commercial development within a protected area. Note: PA refers to all zones: the strict protection zone (SPZ), multiple use zone (MUZ), and the buffer zone (BZ). Ang Pinangangalagang Pook ay binubuo ng istriktong pinangangalagaang sona, sonang may iba't-ibang gamit, at buffer zone (dagdag na sona na pang proteksyon).

#### (Mga kabahayan at negosyo sa loob ng pinangangalagaang pook).

Threats from human settlements or other non-agricultural land uses with a substantial footprint.

(Banta mula sa mga kabahayan at iba pang umuukupa ng malaking sakop ng lupa sa loob ng pinangangalagaang pook).

High	Med	Low	No data	N/A		Remarks (pertinenting detalye tungkol sa uri, laki, porsyento, lokasyon, pinanggalingan, materyales na ginamit, tagal o durasyon, trend, kahinaan or vulnerability at iba pa)
					1.1 Housing and settlement (Kabahayan)	<ul> <li>% of total PA area, lokasyon, trend, temporary or permanent?, etc.</li> </ul>
					1.2 Commercial and industrial areas ( <i>Mga negosyo at industriya</i> )	<ul> <li>% of total PA area, type, location, trend,</li> </ul>
					1.3 Tourism and recreation infrastructure (Mga gusali na pang turismo at libangan)	<ul> <li>% of total PA area, location, trend, type of construction, etc. (Also refer to 6.1)</li> </ul>

#### 2. Agriculture and aquaculture within a protected area.

#### (Pagsasaka at pangingisda sa loob ng pinangangalagaang pook).

Threats from farming and grazing as a result of agricultural expansion and intensification, including silviculture, mariculture and *aquaculture*.

(Mga banta mula sa pagsasaka, pagpapastol, at paghahayupan na bunga ng pagpapalawak ng sakop na lupa kasama ang paghahayupan, mariculture at aquaculture (palaisdaan o mga katulad na pagaalaga ng produktong tubig sa dagat o tubig tabang katulad ng lawa o ilog, o paggamit ng mga pestisidyo o inorganic na pataba at modernong mga paraan katulad ng traktora, de- makinang gamit pagsasakahan/hayupan/pagaalaga ng isda o iba pang produktong dagat o tubig tabang).

High	Med	Low	No data	N/A		Remarks (Facilitator to ask questions that will help guide the assessment) When possible, add perception on trends (based on a timeline); provide more details/basis for rating such as specific crops, location, % of households involved, specific anticipated impacts
					2.1 Annual and perennial non- timber crop cultivation (Pagsasaka) Pagaalaga ng halamang taunan or pangmatagalan na hindi pangtroso or timber (halimbawa ng puno ay kape, kasuy, at iba pang prutas na perenyal)	<ul> <li>% of total PA area; crops and location, who (e.g., migrant?, IP), and how many are engaged, etc.</li> </ul>
					2.1a Utilization of portions of PA to upland vegetable & other agricultural/plantation crop farms (pollutive inputs, e.g., insecticides, pesticides) (Pagsasaka ng mga gulay at ibang halamang gumagamit ng pestisidyo at abono)	<ul> <li>% of total PA area, who and where, what types of pesticides or insecticides are used, how many cropping per year? Market?</li> </ul>
					2.1b Illegal drug cultivation (Pagtatanim ng bawal na halamang gamot)	<ul> <li>% of total PA area. (Note: N/A if not applicable. Also means absent in the PA)., what and location, who? Market?</li> </ul>
					2.2 Wood and pulp plantations	<ul> <li>% of total PA area, who, where, how many are involved? Firm?</li> </ul>
					2.3 Livestock farming and grazing (Paghahayupan at pagpapastolan)	<ul> <li>% of total PA area, who, where, how many are involved?</li> </ul>
					2.4 Marine and freshwater aquaculture	<ul> <li>% of total PA area</li> <li>% of marine</li> <li>and freshwater area</li> <li>Who, where? What are their pollutive/harmful practices?</li> </ul>

#### 3. Energy production and mining within or outside a protected area.

Threats from production of non-biological resources.

(Banta mula sa paggamit ng mga "non-biological resources" katulad ng pagmimina sa loob at kalapit ng pinangangalagaang pook).

High	Medium	Low	No data	N/A		Remarks (Facilitator should ask basic who, what, where, how many/much questions; what are the issues involved?)
					3.1 Oil and gas drilling	<ul> <li>Volume of production per unit time (e.g., barrels/year)</li> </ul>
						<ul> <li>No. and name(s) of firms/groups</li> </ul>
						<ul> <li>No. of physical structures in place</li> </ul>
						- Size of area of operation
						- Years of operation
						<ul> <li>Impacts being observed at present</li> </ul>
					3.2 Mining/quarrying	<ul> <li>Volume of production per unit time (e.g., tons/year)</li> </ul>
						<ul> <li>No. and name(s) of firms/groups</li> </ul>
						<ul> <li>No. of physical structures in place</li> </ul>
						- Size of area of operation
						<ul> <li>Trends, since when?, impacts being observed at present</li> </ul>
						<ul> <li>Any pertinent issues (e.g., social, political, etc)</li> </ul>
					3.3 Energy generation, including from hydropower dams	<ul> <li>Volume of production per unit time (i.e., megawatt/year)</li> </ul>
						<ul> <li>No. and name(s) of firms/groups of operators</li> <li>No. of physical structures in</li> </ul>
						place
						<ul> <li>Location and size of area of operation</li> </ul>
						<ul> <li>Any pertinent issues</li> </ul>
					3.4 Treasure Hunting/ship wreck recovery	<ul> <li>No. and frequency of activity (e.g.,, treasure hunting, wreck recovery - encircle which activity when applicable)</li> </ul>
						<ul> <li>No. and name of groups of operators</li> </ul>
						- Location
						- Since when
						- Any impacts being observed

#### 4. Transportation and service corridors within a protected area.

Threats from long narrow transport corridors and the vehicles that use them including associated wildlife mortality.

(Banta mula sa mahaba at makikipot na daanan ng mga sasakyan at mga sasakyang gumagamit nito kasama ang banta sa pagkamatay ng mga buhay ilang).

High	Medium	Low	No data	N/A		Remarks Facilitator should ask basic who, what, where, how many/much questions; what are the issues involved?)
					4.1 Roads and railroads, include road-kill <i>(Kalsada at mga riles)</i>	<ul> <li>Roads and railroads: in Kilometers</li> <li>Road-kill: No and frequency</li> <li>Location, type of road</li> <li>Any safeguard measures?</li> <li>Operating since when, any issues/ associated impacts</li> </ul>
					4.2 Utility and service lines (e.g., electricity cables, telephone lines (kable ng kuryente at telepono)	<ul> <li>What type? How is the PA/communities compensated?</li> <li>in Kilometers</li> <li>Frequency</li> <li>Location, since when</li> <li>Any issues, impacts being observed</li> </ul>
					4.3 Shipping lanes and canals (Daanan ng mga sasakyang pandagat at mga canal)	<ul> <li>What vessels</li> <li>No. and frequency of vessels (commercial only)</li> <li>Pertinent info about the location (e.g., migratory path?)</li> <li>Any impacts on PA in the past?</li> <li>Trend (increasing traffic?)</li> <li>(Note: artisanal fishing vessels not addressed here. Refer to 5.4 below)</li> </ul>
					4.4 Flight paths (Tawiran ng mga sasakyang panghimpapawid)	<ul> <li>No. and frequency of air craft</li> <li>Impacts being observed</li> </ul>

#### 5. Biological resource use and harm within a protected area.

Threats from consumptive use of "wild" biological resources including both deliberate and unintentional harvesting effects; also persecution or control of specific *species*. (Note: This includes hunting and killing of animals)

(Banta mula sa pag-gamit ng mga buhay ilang mula sa pinangangalagaang pook, sinadya man o hindi, pagsilo at pagpatay ng mga buhay ilang, pangungolekta).

High	Medium	Low	No data	N/A		Remarks Facilitator should ask basic who, what, where, how many/much questions; what are the issues involved?)
					5.1 Hunting, killing and collecting terrestrial animals (including killing of animals as a result of human/wildlife conflict) ( <i>Pangangaso, pagpatay at pagkuha ng mga buhay ilang</i> (kasama ang pagpatay resulta ng problema ng tao o mga hayop)	<ul> <li>What?</li> <li>No. of hunters (to qualify type of hunters)</li> <li>Frequency of hunting</li> <li>Uses (food, etc.)</li> <li>Who, where, when?</li> <li>Trend?</li> <li>Any regulations in place?</li> </ul>
					5.2 Gathering terrestrial plants or plant products (non-timber) (Pangongolekta ng halamang panlupa sa pinangangalagaang pook o mga produkto nito)	<ul> <li>What?</li> <li>No. of gatherers (to qualify type of gatherers)</li> <li>Frequency of gathering/collecting</li> <li>Who, where, when?</li> <li>Trend?</li> <li>Any regulations in place/being enforced?</li> </ul>
					5.3 Logging and wood harvesting (Pangangahoy o pangongolekta nito)	<ul> <li>What?</li> <li>Volume of product harvested</li> <li>No. of people involved in logging/wood harvests</li> <li>Where and when</li> <li>Trend?</li> <li>Any regulations in place/being enforced?</li> <li>No. of apprehensions</li> </ul>
					5.4 Fishing, killing and harvesting aquatic resources (Pangingisda, pagpatay at pangongolekta ng yamang tubig)	<ul> <li>What, when, and where?</li> <li>Volume of product harvested, by what means?</li> <li>No. of fishers, where are they from?</li> <li>Any regulations in place/being enforced (e.g., open/close hunting season)?</li> <li>No. of apprehensions</li> </ul>
					5.5 Trawling, blast and poison fishing	<ul> <li>What, who, where, when?</li> <li>Volume of product harvested from activities</li> <li>No. of trawlers, fishers using blast/poison</li> <li>Any regulations in place/being enforced</li> <li>No. of apprehensions</li> </ul>

#### 6. Human intrusions and disturbance within a protected area.

Threats from human activities that alter, destroy or disturb habitats and species associated with nonconsumptive uses of biological resources.

High	Medium	Low	No	N/A		Remarks
			<u>data</u>		6.1 Recreational activities and tourism ( <i>Turismo at nakalilibang na</i> <i>gawain</i> )	<ul> <li>No. of tourists/year</li> <li>When, where?</li> <li>Trend?</li> <li>Any regulations in place?</li> <li>Any impacts being felt at present?</li> <li>Since when?</li> </ul>
						(Note: Also Refer to <b>1.3,</b> on spatial concerns).
					6.2 War, civil unrest and military exercises (Giyera, awayang sibil at mga pagsasanay military)	<ul> <li>% area damaged by military activities</li> <li>Who, how many are involved? Scope of their activities</li> <li>Where?</li> <li>Any damage being observed from these?</li> </ul>
					6.3 Research, education and other work-related activities in protected areas (Pagsasaliksik, pag-aaral at mga katulad na gawain sa protected area)	<ul> <li>What types of activities?</li> <li>Do they have permit?</li> <li>No. of people/ groups/ activities per year</li> <li>% of area impacted by these activities</li> <li>Any issues?</li> </ul>
					6.4 Activities of protected area managers (e.g., construction or vehicle use, artificial watering points and dams) ( <i>Mga gawain ng mga nangangalaga sa pinangangalagaang pook (e.g., construction o gamit ng sasakyan, artipisyal na patubig</i> )	<ul> <li>What activities</li> <li>Where, frequency</li> <li>% of area impacted by these activities</li> </ul>
					6.5 Deliberate vandalism, destructive activities or threats to protected area staff and visitors (Sadyang bandalismo, mga gawaing nakasisira o banta sa mga protected area staff at mga bisita)	<ul> <li>Types</li> <li>Who? Where?</li> <li>Trend?</li> <li>Any regulation in place/being enforced?</li> <li>% of area impacted by these activities</li> </ul>

(Banta mula sa gawain ng mga tao na sumisira o gumagambala sa mga yaman sa ilang at kanilang tahanan na kaugnay ng non-consumptive o nakakakunsumo na gamit ng mga yamang buhay).

### 7. Natural system modifications.

Threats from other actions that convert or degrade habitat or change the way the ecosystem functions.

High	Medium	Low	No Data	N/A		Remarks
					7.1 Fire including arson (Sunog at pagsunog)	<ul> <li>% of area impacted by these activities</li> <li>Who?, where? Why?</li> <li>Frequency?</li> </ul>
					7.2 Dams, hydrological modification and water management/use (Dams, at iba pang paggamit ng tubig)	<ul> <li>% of area impacted by these activities</li> <li>Any impacts being observed?</li> <li>Any safeguards in place?</li> </ul>
					7.3a Increased fragmentation within protected area (Paglawak ng "fragmentation" sa pinangangalagaang pook) ("Fragmentation" - division of habitats by various causes)	<ul> <li>What activities? Where?</li> <li>Who are involved?</li> <li>% of area impacted by these activities</li> <li>Any issues?</li> </ul>
					7.3b Isolation from other natural habitat (e.g., deforestation, dams without effective aquatic wildlife passages) (Pagkahiwalay ng ibang natural habitat (e.g., deforestation, dams without effective aquatic wildlife passages)	<ul> <li>What activities? Where?</li> <li>Who are involved?</li> <li>% of area impacted by these activities</li> </ul>
					7.3c Other 'edge effects' on park values	<ul> <li>What activities? Where?</li> <li>Who are involved? Any issues?</li> <li>% of area impacted by these activities</li> </ul>
					7.3d Loss of keystone species (e.g., top predators, pollinators etc) (Pagkawala ng keystone species (e.g., top predators, pollinators etc)) (Note: "Keystone" species need to be explained to respondents. Keystone species are those whose extinction would cause major changes in the broader ecosystem. Examples are habitat forming species (trees, corals, seagrasses and mangroves) and top	<ul> <li>List and number of keystone species</li> <li>Loss of species (site- specific extirpation)</li> <li>% population decline (perceived increase or decrease)</li> </ul>

(Banta mula sa mga gawaing sumisira sa kalidad ng pinangangalagaang pook o papel nito sa pangkalahatang kalikasan).

#### 8. Invasive and other problematic species and genes.

Threats from terrestrial and aquatic non-native and native plants, animals, pathogens/microbes or genetic materials that have or are predicted to have harmful effects on biodiversity following introduction, spread and/or increase.

(Banta mula sa mga panglupa at pantubig na hayop, halaman, mikrobyo, o genetikong bagay na mayroon o pinaniniwalaang may masamang epekto sa bayodiversity o pagkakaiba-iba ng buhay ilang dahilan sa paglalagay, paglawak o pagdami ng mga ito.

High	Medium	Low	No data	N/A		Remarks
					8.1 Invasive non-native/alien plants (weeds) (Mapanira o madaling lumaganap na mga halaman na hindi likas sa lugar at may masamang epekto sa mga halamang likas)	<ul> <li>Kind and number of invasive/alien species</li> <li>Area affected</li> <li>Trend</li> <li>Why introduced?</li> <li>Any impacts now being felt? (e.g., what native species have been replaced?)</li> <li>Any management measures in place?</li> </ul>
					8.1a Invasive non-native/alien animals (Mapanira o madaling lumaganap na mga hayop na hindi likas sa lugar/alien animals at may masamang epekto sa mga hayop na likas sa lugar	<ul> <li>Kind and number of invasive/alien species</li> <li>Area</li> <li>Affected</li> <li>Why introduced?</li> <li>Trend</li> <li>Any impacts now being felt? (e.g., what native species have been replaced?)</li> <li>Any management measures in place?</li> </ul>
					8.1b Pathogens (non-native or native but creating new/increased problems) (mga mikrobyo o organismong nagdudulot ng sakit, likas man o hindi sa lugar pero nagdudulot ng lumalaking problema	<ul> <li>Kind and number of invasive/alien species</li> <li>Area</li> <li>affected</li> <li>Trend</li> <li>Any impacts now being felt?</li> <li>Any management measures/regulations in place?</li> </ul>
					8.2 Introduced genetic material (e.g., genetically modified organisms) Mga halaman o hayop na binago ang genetic make-up na dinala/nailagay sa lugar	<ul> <li>Kind and number of invasive/alien species</li> <li>Area</li> <li>affected</li> <li>Trend</li> <li>Any management measures/regulations in place?</li> </ul>

## 9. Pollution entering or generated within protected area.

Threats from introduction of exotic and/or excess materials or energy from point and non-point sources.

(Banta mula sa paglalagay o pagtatapon ng mga bagay at kagamitan o sobrang enerhiyang na nagdudulot ng basura at polusyon).

High	Medium	Low	No data	N/A		Remarks
					9.1a Household sewage and urban waste water (Maduming tubig mula sa mga kabahayan at negosyo)	<ul> <li>Population data</li> <li>No. households</li> <li>Where?</li> <li>Any management in place/being planned?</li> </ul>
					9.1b Sewage and waste water from protected area facilities (e.g., toilets, hotels etc) <i>Maduming tubig</i> <i>mula sa mga protected area</i> <i>facilities</i> )	<ul> <li>Type of wastes</li> <li>No. of people using PA facilities (if present)</li> <li>Any management in placed?/being planned?</li> </ul>
					9.2 Industrial, mining and military effluents and discharges (e.g., poor water quality discharge from dams, e.g., unnatural temperatures, de- oxygenated, other pollution) (Maduming tubig mula sa mga industriya, minahan at mga likidong tapon mula sa mga gamit military)	<ul> <li>No. of firms, structures</li> <li>Type of pollutants</li> <li>Volume if available</li> <li>Any management in place?</li> </ul>
					9.3 Agricultural and forestry effluents (e.g., excess fertilizers or pesticides)	<ul> <li>Area of plantation – qualify if organic or inorganic farming</li> <li>(Note: Also Refer to 2.1 and 2.3).</li> </ul>
					9.4 Garbage and solid waste (Mga basura)	<ul><li>Volume</li><li>Where, Who?</li><li>Management in place?</li></ul>
					9.5 Air-borne pollutants	<ul> <li>No. and type of firms</li> <li>What pollutants?</li> <li>Location?</li> <li>Management in place?</li> </ul>
					9.6 Excess energy (e.g., heat pollution, lights etc)	<ul><li>No. and type of firms</li><li>Type and location</li><li>Management in place?</li></ul>

#### 10. Geological events.

Geological events may be part of natural disturbance regimes in many ecosystems. But they can be a threat if a species or habitat is damaged and has lost its resilience and is vulnerable to disturbance. Management capacity to respond to some of these changes may be limited.

(May mga likas na pangyaryari gaya ng lindol at iba pa na nakakaapekto sa natural na kalikasan ng pinangangalagaang pook. Minsan ito ay may masamang epekto sa pagkasira ng tahanan ng mga likas na yaman. Ang epektibong pamamahala ay malilimitahan dahil sa mga pangyayaring ito).

High	Medium	Low	No data	N/A		Remarks
					10.1 Volcanoes	<ul> <li>No. and frequency of events</li> <li>Location</li> <li>Anticipated extent of damage</li> </ul>
					10.2 Earthquakes/Tsunamis	<ul> <li>No. and frequency of events</li> <li>Location</li> <li>Anticipated extent of damage</li> <li>Disaster preparedness and management measures?</li> </ul>
					10.3 Avalanches/ Landslides	<ul> <li>No. and frequency of events</li> <li>Location</li> <li>Anticipated extent of damage\Management Measures?</li> </ul>
					10.4 Erosion and siltation/ deposition (e.g., shoreline or riverbed changes) ( <i>Pagguho ng</i> <i>lupa</i> )	<ul> <li>% area impacted</li> <li>Severity</li> <li>Location</li> <li>Anticipated extent of damage</li> <li>Who will be affected?</li> <li>Management measures?</li> </ul>

### 11. Climate change and severe weather.

Threats from long-term climatic changes which may be linked to global warming and other severe climatic/weather events outside of the natural range of variation

(Banta mula sa pangmatagalang epekto ng pagbabago ng klima o panahon)

High	Medium	Low	No data	N/A		Remarks
					11.1 Habitat shifting and alteration (Pagllilipat o pagbabago ng habitat)	<ul> <li>% area impacted</li> <li>Location</li> <li>What wildlife are involved?</li> <li>Describe</li> </ul>
					11.2 Droughts (Tagtuyot)	<ul> <li>% area impacted</li> <li>Frequency and intensity</li> <li>Observed damage in the past?</li> </ul>
					11.3 Temperature extremes (Masyadong pagtaas o pagbaba ng temperature)	<ul> <li>% area impacted</li> <li>Frequency and intensity</li> <li>Wildlife most vulnerable</li> </ul>

High	Medium	Low	No data	N/A		Remarks
						- Location
					11.4 Storms and flooding (Pagbagyo at	- % area impacted
					pagbaha)	<ul> <li>Frequency and intensity</li> </ul>
						- Location
						- Impacts
						- Who will be affected?

## 12. Specific cultural and social threats.

High	Medium	Low	No data	N/A		Remarks
Total loss					12.1 Loss of cultural links, traditional knowledge and/or management practices (Pagkawala ng mga tradisyonal na gawain, kaalaman at mga pamamahala)	<ul> <li>Checklist of traditional practices and % loss of these practices from baseline</li> <li>Who?</li> <li>Trend?</li> </ul>
					12.2 Natural deterioration of important cultural site values ( <i>Natural na</i> <i>pagkawasak ng mga lugar na importante</i> <i>sa local na kultura o tradisyon</i> )	<ul> <li>% of sites impacted (by deterioration)</li> <li>Where?</li> <li>What?</li> <li>Trend?</li> <li>Management measures in place?</li> </ul>
					12.3 Destruction of cultural heritage buildings, gardens, sites etc. (Pagkasira ng mga minanang bahay o gusali, halamanan at iba pa.)	<ul> <li>% of sites impacted (by destruction)</li> <li>Where?</li> <li>What?</li> <li>Trend?</li> <li>Management measures in place?</li> <li>-</li> </ul>
					12.4 Effect of Influence groups on IP values and freedom to decide (Epeko ng mga maimpluwensyang grupo sa mga pinhahalagahan ng mga Ips at kanilang kalayaang magdesisyon)	<ul> <li>No. of external groups (e.g., church, political parties, NGOs, NGAs)</li> <li>Describe</li> </ul>
					12.5 Loss of support to communities and projects due to changes in political leadership (Pagkawala ng suporta sa mga barangay o komunidad at mga proyekto dahil sa pag-iiba ng mga lider political) = possible impact in change of leadership	<ul> <li>No. of projects implemented (and type of projects, budget)</li> <li>Describe</li> </ul>

# Assessment Form

Issue	Criteria	onel	Tick only box per estion	Comment/Explana tion	Next steps
1. Legal status	The protected area is not gazetted/covenanted. (Ang protected area ay hindi nalathala o naisabatas).	0			
Does the protected area have legal status (or in the case of private reserves is covered by a covenant or similar)? (Ang inyo bang protected area ay may legal status (or in the case of private	There is agreement that the protected area should be gazetted/ covenanted but the process has not yet begun. (May mga pagsang ayon na ang protected area ay dapat maisabatas ngunit hindi pa nasisimulan ang proseso). Key features (e.g., Key Biodiversity Area trigger species) to be protected identified and agreed upon by local government and/or DENR.	1			
reserves is covered by a covenant or similar)? CONTEXT	The protected area is in the process of being gazetted/covenanted but the process is still incomplete (includes sites designated under international conventions, such as Ramsar, or local/traditional law such as community conserved areas, which do not yet have national legal status or covenant). ( <i>Ang protected area ay nasa proseso ng pagsasabata ngunit hindi pa nakukukpleto ang proceso</i> ). Presidential Proclamation or local (municipal/provincial) ordinance. <i>Note: PAs which have not passed through public consultation can only score a maximum of 2</i> .	2			
	The protected area has been formally gazetted/covenanted. (Ang protected area ay nalathala na o naisabatas) Republic Act.	3			
2. Protected area regulations	There are no regulations for controlling land use and activities in the protected area. (Walang mga regulasyon o polisiya na nagkokontrol sa protected area).	0			
Are appropriate regulations in place to control land use	Only laws are those generally applicable throughout the country				

Issue	Criteria	Score: Tick o one box pe question	er tion	Next steps
and activities (e.g., hunting)? (May mga sapat ba na regulasyon o polisiya sa pamamahala ng paggamit ng mga lupaing sakop ng	Some regulations for controlling land use and activities in the protected area exist but these are major weaknesses. (May ilang regulasyon sa mga gawain sa protected area ngunit mayroon itong malalaking kahinaan.) Regulations specific for the area but these do not address the key threats to PA key features.	1		
protected area )	Regulations for controlling land use and activities in the protected area exist but there are some weaknesses or gaps. (May mga regulasyon o polisiya para sa protected area pero mayroon itong mga kahinaan at mga kakulangan). Regulations specific for the area, and key threats to its key features but are not based upon carrying capacity for extraction & pollution.	2		
	Regulations for controlling inappropriate land use and activities in the protected area exist and provide an excellent basis for management. (May mga regulasyon na angkop para sa mga hindi angkop na mga gawain sa protected area at nagbibigay ito ng mabuting basehan para sa pamamahala nito). Regulations specific for the area, and key threats to its key features and based upon carrying capacity (e.g., extraction, pollution, habitat destruction).	3		
3. Law enforcement Can staff (i.e. those with responsibility for managing the site) enforce protected	The staff has no effective capacity/resources to enforce protected area legislation and regulations (Walang kakayahan ang mga staff o mga kagamitan para maipatupad ang mga regulasyon at polisiya ng protected area). No staff other than PASu, no training, and/or no budget.	0	Details should be provided on the ratings (i.e., perception or fact; if factual, evidence should be provided). Data/figures should	
area rules well enough? (Kaya bang ipatupad ng mga namamahala ng protected area ang mga regulasyon?) INPUT	There are major deficiencies in staff capacity/resources to enforce protected area legislation and regulations (e.g., lack of skills, no patrol budget, lack of institutional support). (May mga malaking kakulangan sa kakayahan at mga kagamitan ng mga tagapamahala ng protected area upang magpatupad ng mga regulasyon at polisiya (e.g., lack of skills, no patrol budget, lack of institutional support). In addition to PASu, presence of fulltime PA staff, an enforcement plan, budget and equipment, systematic monitoring and reporting.	1	be collected (i.e., from WFP for the past 3-5 years) as basis for assessment. Asses if % of budget for enforcement is allocated and utilized. Law Enforcement Plan is usually incorporated in the GMP and should	

Issue	Criteria	Score: Tic one boy quest	x per	Comment/Explana tion	Next steps
	The staff has acceptable capacity/resources to enforce protected area legislation and regulations but some deficiencies remain. (May kakayahan at mga kagamitan ang mga tagapamahala ng protected area upang ipatupad ang mga polisiya at regulasyon ngunit may mga kakulangan pa rin). Presence of trained fulltime PA staff and at least one (1) deputized enforcer (= volunteers) per area greater than 500 hectares, an enforcement plan, budget and equipment, systematic monitoring and reporting. (Note: An updated deputization order/ paper should be provided).	2		be reviewed. "Systematic" is based on GMP, will include: activity, timeline, person responsible, budget, logbook of patrols conducted, apprehensions when applicable .	
	The staff has excellent capacity/resources to enforce protected area legislation and regulations. (May mahusay na kakayahan at kagamitan ang mga tagapamahala ng protected area upang ipatupad ang mga regulasyon at polisiya sa protected area). Presence of trained fulltime PA staff and at least one (1) deputized enforcer (= volunteers) per 500 hectares or less, an enforcement plan, budget and equipment, systematic monitoring and reporting. (Note: An updated deputization order/ paper	3			
4. Protected area objectives	should be provided). No firm objectives have been agreed for the protected area. (Walang napagkasunduang layunin sa pamamahala ng protected area).	0		Basis for scoring is the GMP/IPAP (Initial Protected	
Is management undertaken according to agreed objectives? (Ang pamamahala ba ng protected area ay ayon sa mga naitalaga layunin?)	The protected area has agreed objectives, but is not managed according to these objectives. <i>(May mga naitalagang layunin ngunit hindi ito naipapatupad)</i> The objectives in the GMP/IPAP are specific and quantified in terms of special features, bio-physical (species populations/ecosystem benefits), and socio-economic outcomes as appropriate. Less than 50% of WFP and available staff and budget are addressing the key priorities of the GMP/IPAP.	1		Area Plan). Need to ask if there are objectives in the plan(s) and if these are being implemented. Basis for evaluating implementation is the WFP.	

Issue	Criteria	one k	Tick only box per estion	Comment/Explana tion	Next steps
PLANNING	The protected area has agreed objectives, but is only partially managed according to these objectives. (May mga napagkasunduang layunin ngunit hindi ito gaanong nagagamit sa pamamahala) The objectives in the GMP/IPAP are specific and quantified in terms of special features, bio-physical (species populations/ecosystem benefits), and socio-economic outcomes as appropriate. At least 50% of WFP and available staff and budget are addressing the key priorities of the GMP/IPAP.	2			
	The protected area has agreed objectives and is managed to meet these objectives. (May mga napagkasunduang layunin at ang protected area ay napapamahalaan sang-ayon dito). The objectives in the GMP/IPAP are specific and quantified in terms of special features, bio-physical (species populations/ecosystem benefits), and socio-economic outcomes as appropriate. At least 70% of WFP and available staff and budget addressing the key priorities of the GMP/IPAP.	3			
<ol> <li>Protected area design</li> <li>Is the protected area the right size and shape to protect species, habitats,</li> </ol>	Inadequacies in protected area design mean achieving the major objectives of the protected area is very difficult. (May mga kakulangan sa disenyo ng protected area at mahihirapang ipatupad ang mga layunin sa pangangalaga nito). PA spatial plan is only based upon a species list or protecting forests or coral reefs in general.	0			
ecological processes and water catchments of key conservation concern? (Ang protected area ba ay may tamang sukat at hugis para protektahan ang mga lamang pinangangalagaang pook, habitat, mga natural na proseso at mga imbakan ng	Inadequacies in protected area design mean that achievement of major objectives is difficult but some mitigating actions are being taken (e.g., agreements with adjacent land owners for wildlife corridors or introduction of appropriate catchment management). (May mga kakulangan sa disenyo ng protected area at mahihirapang ipatupad ang mga layunin sa pangangalaga nito pero may mga nagawa na upang maiayos ito. (e.g., agreements with adjacent land owners for wildlife corridors or introduction of appropriate catchment management). PA spatial plan was designed to match all available data on key features (e.g., range and habitat types of trigger species).	1			

Issue	Criteria	one b	Tick only ox per stion	Comment/Explana tion	Next steps
tubig para sa pag- iingat ng at pag preserba ng mga ito?)	Protected area design is not significantly constraining achievement of objectives, but could be improved (e.g., with respect to larger scale ecological processes). (Ang disenyo ng protected area ay hindi gaanong nakakaapekto upang maipatupad ang mga layunin sa pamamahala nito ngunit maaari pa itong pag-igihin).	2			
PLANNING	PA spatial plan protects key stages of the life cycle of key features (e.g., breeding ground).				
	Protected area design helps achievement of objectives; it is appropriate for species and habitat conservation; and maintains ecological processes such as surface and groundwater flows at a catchments scale, natural disturbance patterns etc. (Ang disenyo ng protected area ay nakatutulong upang maabot ang layunin sa pangangalaga nito; ito ay angkop para sa mga likas na yaman at pangangalaga nito at mga proseso katulad ng surface and groundwater flows at a catchment scale, natural disturbance patterns etc). PA spatial plan protects key stages of the life cycle	3			
	of key features, connectivity and supporting ecological processes.				
6. Protected area boundary demarcation	The boundary of the protected area is not known by the management authority or local residents/neighbouring land users. (Ang boundary ng protected area ay hindi alam ng mga tagapamahala nito o ng mga local na residente o mga karatig lugar).	0		Diificulty in establishing "landmarks" particularly in marine PAs. There may be technical descriptions but no	

Issue	Criteria	Score: Tick only one box per question		Comment/Explana tion	Next steps
	The boundary of the protected area is known by the management authority but is not known by local residents/neighbouring land users. (Ang boundary ng protected area ay alam ng mga tagapamahala nito ngunit hindi alam ng mga local na residente o mga karatig lugar). Managers can describe the boundary landmarks in the field (i.e., terrestrial: landmarks; marine: technical description)	1			
	The boundary of the protected area is known by both the management authority and local residents/neighbouring land users but is not appropriately demarcated. (Ang boundary ng protected area ay alam ng mga tagapamahala nito at ng mga local na residente at mga karatig lugar ngunit hindi pa ito namamarkahan). Signs exist at major entry points and boundaries are based upon landmarks in the field (i.e., terrestrial: landmarks; marine: technical description).	2			
	The boundary of the protected area is known by the management authority and local residents/neighbouring land users and is appropriately demarcated. (Ang boundary ng protected area ay alam ng mga tagapamahala nito at ng mga local na residente at mga karatig lugar at ito ay namamarkahan na). Perimeter is clearly demarcated (i.e., for marine, technical description are visible from jump-off points/landward side).	3			
7. Management plan	There is no management plan for the protected area. (Walang management plan para sa protected area). The management plan is still being prepared.	0			
management plan and is it being implemented?	A management plan has been prepared but is not being implemented. ( <i>May management plan o ito</i> <i>ay ginagawa na ngunit hindi pa ito naipatutupad</i> ). Management plan has been officially adopted.	1			

Issue	Criteria	Score: Tick only one box per question		Comment/Explana tion	Next steps
(May plano ba ng pamamahala ng protected area at ito ba naipapatupad?)	A management plan exists but it is only being partially implemented because of funding constraints or other problems. (May management plan ngunit hindi pa ito lubos na naipapatupad dahil sa kakulangan sa pondo at iba pang problema).	2			
PLANNING	The highest priority activities of the official management plan are being implemented.				
	A management plan exists and is being implemented. ( <i>Mayroongmanagement plan exists at ito'y naipatutupad</i> ).	3			
	At least 70% of the activities (including all high priority activities) of the official management plan are being implemented.				
Additional points: Pla	anning				
7a. Planning process	The planning process allows adequate opportunity for key stakeholders to influence the management plan. (Ang proseso ng pagpaplano ay nagbibigay ng oportunidad sa mga key stakeholders na makasali).	+1			
7b. Planning process	There is an established schedule and process for periodic review and updating of the management plan (May mga nakatakdang panahon at proseso para sa pagrebisa at pagpa-plano)	+1			
7c. Planning process	The results of monitoring, research and evaluation are routinely incorporated into planning (Ang mga resulta ng pagsasaliksik, pagrebisa at pagmamatyag ay naisasama at nagagamit sa pagpa-plano)	+1			
7d. Operations Manual		+1			
7e. Enforcement Manual		+1			
8. Regular work plan (Annual WFP)	No regular work plan exists <i>(Walang plano ng gawain)</i>	0			
ls there a regular work plan and is it	A regular work plan exists but few of the activities are implemented. ( <i>May plano ng gawain ngunit hindi lahat ay naipatutupad</i> ).	1			
work plan and is it	Less than 50% of WFP is implemented.				

Issue	Criteria	one be	Fick only ox per stion	Comment/Explana tion	Next steps
being implemented? (Mayroon bang plano ng gawain at ito ba naipatutupad?)	A regular work plan exists and many activities are implemented. (May plano ng gawain at maraming gawain ang naipatutupad). At least 50% of WFP activities (including priority activities) is implemented.	2			
PLANNING	A regular work plan exists and all activities are implemented (May ng gawain at naipatutupad lahat ng ito) At least 70% of WFP activities (including priority activities) is implemented	3			
9. Resource inventory	There is little or no information available on the critical habitats, species and cultural values of the protected area. (May kaunti o walang impormasyon tungkol sa critical habitats, species	0		Basis for assessment if the RBI (Resource Biodiversity	
Do you have enough information to manage the area?	at cultural values ng protected area). If information is more than 10 years and have not been updated.			Inventory) and whether information feeds into planning and	
(May sapat ba kayong kaalaman upang pamahalaan ang lugar?) Please attach copy of the inventories	Information on the critical habitats, species, ecological processes and cultural values of the protected area is not sufficient to support planning and decision making. (Hindi sapat ang impormasyon tungkol sa mga critical habitats, species, ecological processes at cultural values ng protected area at hindi ito sapat para sa pagpaplano at paggawa ng tamang desisyon).	1		decision making for biodiversity observation and PA management.	
INPUT	Information on the critical habitats, species, ecological processes and cultural values of the protected area is sufficient for most key areas of planning and decision making. (May sapat na impormasyon tungkol sa critical habitats, species, ecological processes at cultural values ng protected area para sa maraming aspeto ng pagpaplano at decision making).	2			
	Information on the critical habitats, species, ecological processes and cultural values of the protected area is sufficient to support all areas of planning and decision making (Sapat ang lahat ng impormasyon tunkol sa critical habitats, species, ecological processes at cultural values ng protected area para suportahan ang lahat ng aspeto ng pagpaplan at decision making)	3			

Issue	Criteria	Score: Tick only one box per question	Comment/Explana tion	Next steps
10. Protection systems Are systems in place to control access/resource use in the protected area?	Protection systems (patrols, permits etc) do not exist or are not effective in controlling access/resource use. (Walang sistema sa proteksyon (patrols, permits etc) o hindi ito epektibo sa pagkontrol ng pagpasok sa protected area at paggamit ng mga likas yaman dito). Score is also 0 if there is inadequate systematic monitoring and reporting of violations.	0	Clarification on protection vs apprehension: Reporting of violations does not necessarily translate into "protection systems" but it is a	
(May mga sistema ba sa pagkontrol ng daanan patungo sa protected area at paggamit ng mga likas yaman dito?)	Protection systems are only partially effective in controlling access/resource use. (Ang mga sistema sa pagkontrol ng pagpasok sa PA at mga likas yaman dito ay hindi gaanong epektibo). At least 70% of reported violations were apprehended based upon systematic monitoring.	1	<ul> <li>required basis for assessing protection systems.</li> </ul>	
PROCESS	Protection systems are moderately effective in controlling access/resource use. (May kakulangan ang mga sistema sa pag protekta ng access/resource use). At least 70% of reported violations apprehended, and at least 70% of apprehensions administratively resolved or filed/resolved in court based upon systematic monitoring.	2		
	Protection systems are largely or wholly effective in controlling access/ resource use. (Malawak at epektibo ang mga sistema sa proteksyon ng pagpasok sa protected area at paggamit ng mga likas yaman dito). At least 70% of reported violations apprehended, and at least 70% of apprehensions administratively resolved or filed/resolved in court based upon systematic monitoring. Moreover, systematic monitoring indicates that violations are decreasing.	3		
11. Research	There is no survey or research work taking place in the protected area. (Walang survey o pagsasaliksik na ginagawa sa protected area).	0		
Is there a programme of management- orientated survey and research work?	There is a small amount of survey and research work but it is not directed towards the needs of protected area management. (May kaunting survey o pagsasaliksik na ginagawa sa protected area	1		
(May mga pagsasaliksik ba na ginagawa na	ngunit hindi ito naaangkop sa pangangailan ng mga namamahala ng protected area).			

Issue	Criteria	Score: Tick only one box per question		Comment/Explana tion	Next steps
makatutulong sa mabuting pamamahala ng PA?) Please attach results of studies <b>PROCESS</b>	There is considerable survey and research work but it is not directed towards the needs of protected area management. (Maraming ginagawang survey o pagsasaliksik na ginagawa sa protected area ngunit hindi ito naaangkop sa pangangailangan ng mga namamahala ng protected area).	2			
	There is a comprehensive, integrated programme of survey and research work, which is relevant to management needs. (May malawakan at komprehensibong survey at pagsasaliksik na angkop at mahalaga sa pangangailangan ng mga tagapamahala ng protected area).	3			
12. Resource management	Active resource management is not being undertaken. <i>(Walang aktibong pamamahala sa likas yaman).</i> No annual WFP.	0		Please provide adequate supporting documentation. Clear cut-offs for each level have not been determined and will be determined from a review of all incoming reports. To objectively assess "resource management", there is need to review the GMP and WFP first. For NIPAS sites, Resource Management is required by law. Without the GMP/WFP, then there is no basis for evaluation and scoring. Thus, a	
Is active resource management being undertaken? (May ginagawa bang pamamahala sa mga likas yaman?)	Very few of the requirements for active management of critical habitats, species, ecological processes and cultural values are being implemented. (Napakaunti ang ginagawa upang mapamahalaan ang mga critical habitats, species, ecological processes at cultural values). Presence of a WFP and less than 50% of the requirements forresource management is implemented.	1			
PROCESS	Many of the requirements for active management of critical habitats, species, ecological processes and, cultural values are being implemented but some key issues are not being addressed. (Maraming ginagawa upang aktibong pamahalaan ang mga critical habitats, species, ecological processes at cultural values ngunit may mga ilang importanteng isyu na hindi natutugunan). Presence of a WFP and 50-70% of the requirements for resource management is implemented.	2			

Issue	Criteria	Score: Tick only one box per question	Comment/Explana tion	Next steps
	Requirements for active management of critical habitats, species, ecological processes and, cultural values are being substantially or fully implemented. (May sapat na aktibong pamamahala ng critical habitats, species, ecological processes at cultural values). Presence of a WFP and 100% of the requirements for resource management is implemented.	3	low score. Recommend collection of related information.	
13. Staff numbers	There is no staff. <i>(Walang tauhan).</i> Only PASu.	0	Please provide organizational structure including numbers of staff	A good GMP should have an organization
Are there enough people employed to manage the protected area? (May sapat bang mga tauhan na mamahala ng pinangangalagaang	Staff numbers are inadequate for critical management activities. (Hindi sapat ang bilang ng mga tauhan upang maisagawa ang mga importanteng gawain). Staffing below minimum requirements under the GMP.	1	and volunteers, tasks/roles and level of effort. Clear cut-offs for each level have not been determined and will be determined from a review of all incoming reports. Focus is on number of PA staff employed. Will also include the number of volunteers. Premise: an organizational structure should be available based on the GMP. Also state if PASu is concurrent PENRO/MENRO.	al structure
pook?)	Staff numbers are below optimum level for critical management activities. (Ang bilang ng mga tauhan ay mababa sa inaasahang bilang para sa pagsasagawa ng mahahalagang gawain ng pamamahala). Staffing meets minimum requirements under the GMP.	2		
	Staff numbers are adequate for the management needs of the protected area. (Ang bilang ng mga tauhan ay sapat para sa pamamahala ng protected area). All staffing requirement in the GMPs Organization Chart filled.	3		
14. Staff training	Staff lack the skills needed for protected area management. (Walang kakayahan ang Staff para mapamahalaan ang protected area).	0	Questions may be asked directly to the PASu. Two	Trainings provided (and needs)

Issue	Criteria	onel	Tick only box per estion	Comment/Explana tion	Next steps
Are staff adequately trained to fulfil management objectives?	Staff training and skills are low relative to the needs of the protected area. (Hindi sapat ang kasanayan at kakayahan ng mga Staff para sa pangangailangan ng protected area).	1		layers for this question: 1 <sup>st</sup> : general education of staff;	may be listed, if possible.
(May sapat bang kasanayan ang mga tauhan upang mapamahalaan ang protected area ng	Technical staff (volunteers are not included in this requirement) can identify the specific features being conserved and can explain their benefits to key stakeholders.			2 <sup>nd</sup> : training on the job applied for. Does the training the staff had for the last five years match the needs in PA management.	
maayos?) INPUTS	Staff training and skills are adequate, but could be further improved to fully achieve the objectives of management. ( <i>Staff training and skills are</i> <i>adequate, but could be further improved to fully</i> <i>achieve the objectives of management</i> ).	2			
	Each staff has at least a general education and one (1) training that specifically directly matches his/her primary role in PA management. Technical staff can identify the specific features being conserved and can explain their benefits to key stakeholders.				
	Staff training and skills are aligned with the management needs of the protected area. (Ang kasanayan at kakayahan ng Staff ay naaayon sa pangangailangan ng pamamahala ng protected area).	3			
	This should not be based upon perception but on actual capability compared to competency standards. That is, you may think you know but you don't. Or you may think you don't know enough, but you actually know enough. (Competency standards will be provided together with this METT tool.)				
	(Note: No need for basing the score on the "competency standards" when this is a perception survey, as gauged by the people who will rate themselves).				
15. Current budget	There is no budget for management of the protected area. (Walang nakalaang budget para sa pamamahala ng protected area).	0		Please provide budget and expenditure per	
Is the current budget sufficient?	No WFP.			year for last 3 years including breakdown of line	
(Sapat ba ang kasalukuyang budget?)	The available budget is inadequate for basic management needs and presents a serious constraint to the capacity to manage. (Ang nakalaang budget ay hindi sapat para sa mga basic na pangangailangan ng management at nakakaapekto ito sa kanilang kakayahang mamahala ng epektibo).	1		items. Clear cut- offs for each level have not been determined and will be determined from a review of all incoming reports.	
INPUTS	Less than 50% of WFP is implemented.				

Issue	e Criteria Score: Tick only one box per question		Comment/Explana tion	Next steps
	The available budget is acceptable but could be further improved to fully achieve effective management. (Ang nakalaang budget ay maaari na para sa pangangailangan ngunit maaari pa itong dagdagan upang higit na mapagbuti pa ang pamamahala). At least 50% of WFP activities (including priority activities) is implemented.	2	(Note: Also refer to #8, Regular Work Plan).	
	The available budget is sufficient and meets the full management needs of the protected area. (Sapat ang nakalaang budget at nakatutugon ito sa lahat ng pangangailangan upang lubos na mapahalaan ang protected area). At least 70% of WFP activities (including priority activities) is implemented.	3		
<ul> <li>16. Security of budget</li> <li>Is the budget secure?</li> <li>(May kasiguruhan ba ang budget?)</li> </ul>	There is no secure budget for the protected area and management is wholly reliant on outside or highly variable funding. (Walang siguradong pinagkukunan ng budget para sa protected area at management at ito ay umaasa lang sa labas na tulong pinansyal o pabago-bagong pinagkukunan ng pondo).	0	To note that Expenditure is only based from MOOE. Capital expenditure is based from IPAF.	
ang budget?) INPUTS	There is very little secure budget and the protected area could not function adequately without outside funding (Napakaliit ng siguradong budget at ang protected area ay hindi mapapamahalaan ng walang tulong pinansyal mula sa labas) Both DENR and LGU have each provided budget (in cash or in kind) over each of the last 2 years.			
	There is a reasonably secure core budget for regular operation of the protected area but many innovations and initiatives are reliant on outside funding (May siguradong mapagkukunan ng pondo para sa regular na operasyon ng protected area ngunit ang mga inisyatibo at mga bagong pamamaraan ay umaasa sa panlabas na tulong pinansyal)	2		
	Both DENR and LGU have each provided budget (in cash or in kind) over each of the last 5 years.			

Issue	Criteria	Score: T one bo ques	ox per	Comment/Explana tion	Next steps
17. Management of	There is a secure budget for the protected area and its management needs <i>(May sigurado at sapat na budget para sa pamamahala ng protected area)</i> Both DENR and LGU have each provided budget (in cash or in kind) over each of the last 7 years. In addition, user fees have provided at least 30% of the budget in the last 5 years. Budget management is very poor and significantly	3		Expenditures only	
budget Is the budget managed to meet	undermines effectiveness (e.g., late release of budget in financial year). <i>(Hindi maganda ang pamamahala ng budget at malaki ang epekto nito sa epektibong pagpapatakbo ng mga gawain).</i>			based from MOOE. Capital expenditures is based from IPAF.	
critical management needs? (Nagagamit ba ang budget para sa mga importanteng pangangailangan ng	Budget management is poor and constrains effectiveness. (Mahina ang pamamahala ng budget at nakakaapekto sa operasyon). At least 60% of the planned annual budget was actually spent for the purpose it was intended.	1			
rotected area?) PROCESS	<ul> <li>Budget management is adequate but could be improved. (Maayos ang pamamahala ng budget ngunit maaari pa itong pagbutihin).</li> <li>At least 70% of the planned annual budget was actually spent for the purpose it was intended.</li> </ul>	2			
	Budget management is excellent and meets management needs. (Napakaayos ng pamamahala ng budget at tinatagpo ang pangangailang ng operasyon). At least 80% of the planned annual budget was actually spent for the purpose it was intended.	3			
18. Equipment	There are little or no equipment and facilities for management needs. (May kaunti o walang kagamitan at pasilidad para sa pangangailangan	0		Rationale: the means to enforce, patrol and respond.	
ls equipment	kagamitan at pasilidad para sa pangangailangan ng tagapamahala).			patrol and respond. (Refer to #3, Law	

Issue	Criteria	Score: Tick one box p question	ber	Comment/Explana tion	Next steps
sufficient for management needs? (Sapat ba ang kagamitan para sa pamamahala?)	There are some equipment and facilities but these are inadequate for most management needs. (May ilang kagamitan at pasilidad ngunit hindi ito sapat para sa pangangailangan). There is capability to communicate among all key stakeholders (PAMB ExeCom and PA staff) and enforcers located in any point of the protected area within 1 hour.	1		Enforcement)	
	There are equipment and facilities, but still some gaps that constrain management. (May mga kagamitan at pasilidad ngunit may ilan pang kakulangan). There is capability to communicate among all key stakeholders and enforcers located in any point of the protected area within 1 hour. At least 2 enforcers can reach any point of the protected area within 8 hours. There are adequate equipment and facilities. (May sapat na mga kagamitan at pasilidad). There is capability to communicate among all key stakeholders and enforcers located in any point of the protected area within 1 hour. At least 2 enforcers can reach any point of the protected area within 8 hours. There is adequate equipment such that the safety of enforcers in arresting major violators is ensured.	2 3			
19. Maintenance of equipment	There is little or no maintenance of equipment and facilities. (May kaunti o walang pangangalagang ginagawa sa mga kagamitan at pasilidad).	0			
Is equipment adequately maintained? (Napangangalagaan ba ang mga kagamitan?)	<ul> <li>There is some ad hoc maintenance of equipment and facilities. (May mga ad hoc o hindi regular na pangangalagang ginagawa sa mga kagamitan at pasilidad).</li> <li>Communication and transportation equipment have been maintained for at least 5 years.</li> </ul>	1			

Issue	Criteria	one b	Tick only box per stion	Comment/Explana tion	Next steps
PROCESS	There is basic maintenance of equipment and facilities. (May "basic" o sapat na pangangalaga sa mga kagamitan at mga pasilidad).	2			
	Communication and transportation equipment have been maintained for at least 10 years.				
	Equipment and facilities are well maintained. (Ang mga kagamitan at mga pasilidad ay lubos na napangangalagaan). Communication and transportation equipment have been maintained for at least 10 years. In addition, adequate financial resources are pro- actively being set aside to replace equipment in line with their depreciation rate.	3			
20. Education and awareness	There is no education and awareness programme. (Walang programa sa edukasyon at pagpapalawak ng kaalaman).	0			
Is there a planned education programme linked to the objectives and needs?	There is a limited and <i>ad hoc</i> education and awareness programme. (May limitado at hindi regular na edukasyon at pagpapalawak ng kaalaman).	1			
(May mga nakaprograma ba sa pag-aaral na nakakabit sa mga layunin at	There is an education and awareness programme but it only partly meets needs and could be improved. ( <i>May programa sa edukasyon at</i> <i>pagpapalawak ng kaalaman ngunit hindi ito sapat</i> <i>at maaari pang pagbutihin o paunlarin</i> ).	2			
pangangailan ng pamamahala?) <b>PROCESS</b>	There is an appropriate and fully implemented education and awareness programme. (May angkop na program sa edukasyon at pagpapalawak ng kaalaman at kamalayan).	3			
21. Planning for adjacent land and water use Does land and water use planning recognise the protected area and	Adjacent land and water use planning does not take into account the needs of the protected area and activities/policies are detrimental to the survival of the area. (Ang mga pagpaplano ng mga katabing lupa at tubig ay hindi isinasaalang- alang ang mga pangangailangan ng protected area at ang mga gawain at polisiya dito ay nakasasama sa pagpapatuloy ng kaayusan ng lugar).	0		Need to have information on the availability of the relevant plans (e.g., CDP, CLUP, FLUP, ICM and Provincial Development Plan(s), others. If	

Issue	Criteria	Score: Tick only one box per question	Comment/Explana tion	Next steps
aid the achievement of objectives? (Ang pagpaplano ba sa gamit ng lupa at tubig ay nakakatulong upang maabot ang mga layunin?) <b>PLANNING</b>	Adjacent land and water use planning does not take into account the long term needs of the protected area, but activities are not detrimental the area. (Ang mga pagpaplano ng mga katabing lupa at tubig ay hindi isinasaalang-alang ang pangmatagalang pangangailangan ng protected area ngunit ang mga gawain at polisiya dito ay hindi nakasasama sa pagpapatuloy ng kaayusan ng lugar). Existing Comprehensive Development Plan (CDP), Comprehensive Land Use Plan (CLUP), Forest Land Use Plan (FLUP), and Integrated Coastal Management Plan (ICM), if any, do not conflict with the PA plan (even if it was not explicitly intended as such).	1	and when available, to get copies also. Such plans will provide basis for assessing consistency/inconsi stency with PA mgt and possible recommendation to improve not so ideal conditions.	
	Adjacent land and water use planning partially takes into account the long term needs of the protected area. (Ang mga pagpaplano ng mga katabing lupa at tubig ay may kaunting pagsasaalang-alang ang mga pangangailangan ng protected area). CDP, CLUP, FLUP, and ICM incorporate or is intentionally consistent with the Protected Area plan.	2		
	Adjacent land and water use planning fully takes into account the long term needs of the protected area. (Ang mga pagpaplano ng mga katabing lupa at tubig ay may lubos na pagsasaalang-alang ang mga pangmatagalang pangangailangan ng protected area). CDP, CLUP, FLUP, ICM and Provincial Development Plan(s) incorporate or is intentionally consistent with the Protected Area Plan and directly contributes to Protected Area management.	3		
Additional points: Land	and water planning			
21a: Land and water planning for habitat conservation	Planning and management in the catchment or landscape containing the protected area incorporates provision for adequate environmental conditions (e.g., volume, quality and timing of water flow, air pollution levels etc) to sustain relevant habitats. (Ang pagpaplano at pamamahala sa pinangangalagaang pook na sakop ng protected area ay may probisyon para sa sapat na o maayos na kondisyon ng kapaligiran)	+1		

Issue	Criteria	Score: Tick only one box per question		Comment/Explana tion	Next steps
21b: Land and water planning for connectivity	Management of corridors linking the protected area provides for wildlife passage to key habitats outside the protected area (e.g., to allow migratory fish to travel between freshwater spawning sites and the sea, or to allow animal migration). (Mayroong pamamahala ng mga lagusan o daraanan ng mga hayop-pinangangalagaang pook sa kanilang importanteng mga lagian/tahanan sa labas ng protected area)	+1			
21c: Land and water planning for ecosystem services & species conservation	"Planning addresses ecosystem-specific needs and/or the needs of particular species of concern at an ecosystem scale (e.g., volume, quality and timing of freshwater flow to sustain particular species, fire management to maintain savannah habitats etc.)" (Ang mga pagpaplano ay sumasagot sa mga tukoy na pangangailangan ng bawat "species" at "ecosystem")	+1			
22. State and commercial neighbours	There is no contact between managers and neighbouring official or corporate land and water users. (Walang ugnayan sa mga tagapamahala ng mga katabing lupain at tubigan).	0			
Is there co-operation with adjacent land and water users? (May kooperasyon ba sa mga gumagamit ng mga katabing lupa	There is contact between managers and neighbouring official or corporate land and water users but little or no cooperation. (May ugnayan sa mga tagapamahala ng mga katabing lupain at tubigan ngunit maliit o walang kooperasyong namamagitan).	1			
at tubig?) PROCESS	There is contact between managers and neighbouring official or corporate land and water users, but only some co-operation. (Walang namamagitang ugnayan sa mga tagapamahala ng mga katabing lupain at tubigan ngunit may anyo ng kooperasyon). There are MOAs/agreements with at least 20% of LGUs and 1 of the top 5 corporate users.	2			
	There is regular contact between managers and neighbouring official or corporate land and water users, and substantial co-operation on management. (May regular na ugnayan sa mga tagapamahala ng mga katabing lupain at tubigan at may malawak na kooperasyon sa pamamahala).	3			
	There are MOAs/agreements with at least 50% of LGUs and 2 of the top 5 corporate users and priority activities of the agreements are being implemented.				

Issue	Criteria	Score: Tick only one box per question		Comment/Explana tion	Next steps
23. Indigenous people Do indigenous and traditional peoples resident or regularly using the protected	Indigenous and traditional peoples have no input into decisions relating to the management of the protected area. (Ang mga katutubo ay hindi kasali sa mga desisyon na may kaugnayan sa pamamahala ng protected area). Indigenous and traditional peoples are in the area but are not represented in the PAMB	0		For areas with with no IPs – Not Applicable	
area have input to management decisions? (Ang mga katutubo bang naninirahan ditto o mga taong regular na naninirahan ay kasali sa pamamahala ng PA?)	Indigenous and traditional peoples have some input into discussions relating to management but no direct role in management. <i>(Ang mga katutubo ay kasali sa paggawa ng mga talakayan sa pamamahala ngunit hindi sila kasali sa direktong pamamahala).</i> Indigenous and traditional peoples are in the area and are represented in the PAMB but do not actually participate in the meetings (check attendance sheets).	1			
PROCESS	Indigenous and traditional peoples directly contribute to some relevant decisions relating to management but their involvement could be improved. (Ang mga katutubo ay kasali sa mga desisyon sa pamamahala ngunit ang kanilang papel sa operasyon ay maari pang ayusin o palawakin). Indigenous and traditional peoples are in the area and are represented in the PAMB and actually participate in the meetings and in field activities (check minutes of meetings and interventions).	2			
	Indigenous and traditional peoples directly participate in all relevant decisions relating to management, e.g., co-management. (Ang mga katutubo ay may direktang partisipasyon sa paggawa ng mga desisyon at pamamahala). Indigenous and traditional peoples are in the area and are represented in the PAMB, actually participate in the meetings and lead some field activities.	3			
24. Local communities Do local communities resident or near the protected area have input to management	Local communities have no input into decisions relating to the management of the protected area (Ang mga lokal na komunidad ay walang naiaambag sa mga desisyon sa pamamahala ng protected area) Local communities are not represented in the PAMB	0		Local communities refers to barangays which are represented by the Brgy Captain	

Issue	sue Criteria one que		Tick only box per estion	Comment/Explana tion	Next steps
decisions? (Ang mga naninirahan ba sa mga komunidad malapit sa PA ay naisasali sa mga desisyon sa pamamahala ng PA?)	Local communities have some input into discussions relating to management but no direct role in management ( <i>Ang mga local na komunidad ay may ambag sa mga diskusyon ukol sa pamamahala ngunit wala silang papel sa direktong pamamahala nito</i> ) Local communities are represented in the PAMB but do not actually participate in the meetings (check attendance sheets)	1			
PROCESS	Local communities directly contribute to some relevant decisions relating to management but their involvement could be improved (May direktang partisipasyon ang mga local na komunidad sa mga importanteng desisyon tungkol sa pamamahala ngunit maari pang mapabuti ang kanilang partisipasyon) Local communities are represented in the PAMB and actually participate in the meetings and in field activities (check minutes of meetings and interventions)	2			
	Local communities directly participate in all relevant decisions relating to management, e.g., co-management (May direktang partisipasyon ang mga local na komunidad sa mga importanteng desisyon tungkol sa pamamahala, e.g., co- management) Local communities are represented in the PAMB, actually participate in the meetings and lead some	3			
Additional points Local	field activities.				
24a. Impact on communities	There is open communication and trust between local and/or indigenous people, stakeholders and protected area managers. (May bukas na komunikasyon at tiwala sa pagitan ng mga local na residente, mga katutubo, "stakeholders at mga tagapamahala ng PA).	+1			
24b. Impact on communities	Programmes to enhance community welfare, while conserving protected area resources, are being implemented. (May mga programang isinasagawa na nagpapabuti sa kalagayan ng mga komunidad habang pinoproteksyonan ang mga yamang likas).	+1			
24c. Impact on communities	Local and/or indigenous people actively support the protected area. (Ang mga local na residente at mga katutubo ay aktibong sumusuporta sa protected area).	+1			

Issue	Criteria	Score: Tick only one box per question		Comment/Explana tion	Next steps	
25. Economic benefit Is the protected	The protected area does not deliver any economic benefits to local communities. (Ang protected area ay hindi nagbibigay ng kahit anong benepisyong ekonomiya sa mga local na residente).	0		Legal economic benefits based on PA inputs (income, employment, others)		
area providing economic benefits to local communities, e.g., income, employment,	Potential economic benefits are recognised and plans to realise these have been developed. (May mga potensyal na biyayang pang-ekonomiya kinikilala at may mga plano itong paunlarin).	1				
payment for environmental services?	There is some flow of economic benefits to local communities. (May pakinabang na kaunti sa ekonomiya ng mga local na komunidad).	2				
(Ang protected area ba ay nagkakaloob ng mga benepisyong pang- ekonomiya sa mga local na komunidad, e.g., income, employment, bayad para sa environmental services?) OUTCOMES	There is a major flow of economic benefits to local communities from activities associated with the protected area. (May malaking pakinabang na pang-ekonomiya na nagmumula sa protected area para sa mga local na komunidad). At least 10% of households are receiving economic benefits. (This should not include direct employment by the protected area management.).	3				
26. Monitoring and evaluation	There is no monitoring and evaluation in the protected area. (Walang pagmamasid na ginagawa sa protected area).	0				
Are management activities monitored against performance? (Naikukumpara ba ang mga gawain sa pamamahala sa kanilang aktuwal na trabaho o nagawa?)	There is some <i>ad hoc</i> monitoring and evaluation, but no overall strategy and/or no regular collection of results ( <i>May mga ad hoc o hindi regular na monitoring and evaluation, ngunit walang pangkalahatang stratehiya o regular na pagkuha ng mga resulta</i> )	1				
PROCESS	There is an agreed and implemented monitoring and evaluation system but results do not feed back into management. (May pinagkasunduan at ipinatutupad na sistema ng monitoring and evaluation system ngunit hindi ito naibibigay sa mga tagapamahala).	2				
	Governance, bio-physical and socio-economic parameters were regularly monitored over the last 3 years.					

Issue	Criteria	Score: Tick on one box per question	ly Comment/Explana tion	Next steps
	A good monitoring and evaluation system exists, is well implemented and used in adaptive management (May maayos na sistema ng monitoring and evaluation at ito ay maayos na naipatutupad at nagagamit ng mga tagapamahala)	3		
<b>27. Visitor facilities</b> Are visitor facilities adequate?	There are no visitor facilities and services despite an identified need. (Walang mga pasilidad o serbisyo para sa mga bisita kahit may tiyak na pangangailangan dito).	0		
(May mga pasilidad ba para sa mga bumibisita sa lugar?)	Visitor facilities and services are inappropriate for current levels of visitation. (Ang mga pasilidad at serbisyo para sa mga bisita ay hindi sapat para sa dami at dalas ng mga bumibisita dito). Access trails, toilet(s) and shelters are inadequate.	1		
OUTPUTS				
	Visitor facilities and services are adequate for current levels of visitation but could be improved. (May sapat na pasilidad at serbisyo para sa mga bisita ngunit maaari pa itong pagbutihin o iayos). Access trails, toilet(s) and shelters are adequate to meet the needs of 80% of the peak level of visitors	2		
	Visitor facilities and services are excellent for current levels of visitation. (May pinakamagandang mga pasilidad at serbisyo para sa mga bisita ng protected area). Access trails, toilet(s), shelters and a visitor center are adequate to meet the needs of 100% of the peak level of visitors and there is an emergency response team and mechanism.	3		
28. Commercial tourism operators Do commercial tour operators contribute	There is little or no contact between managers and tourism operators using the protected area. (May maliit o walang kaugnayan sa pagitan ng mga tagapamahala ng PA at mga tourism operators na gumagamit ng protected area).	0		

Issue	Issue Criteria		Tick only box per estion	Comment/Explana tion	Next steps
to protected area management? (Ang mga commercial tour operators ba ay tumutulong sa pamamahala ng protected area?)	There is contact between managers and tourism operators but this is largely confined to administrative or regulatory matters. (May ugnayan sa tagapamahala ng PA at mga tourism operators ngunit ito ay limitado sa mga gawaing administratibo o mga regulasyon).	1			
PROCESS	<ul> <li>There is limited co-operation between managers and tourism operators to enhance visitor experiences and maintain protected area values. (May limitadong kooperasyon sa pagitan ng mga tagapamahala ng PA at tourism operators para mapaganda ang ekperyensya ng mga bisita at mapanatili ang mga importante sa protected area).</li> <li>There is a signed agreement between managers and tourism operators.</li> </ul>	2			
	There is good co-operation between managers and tourism operators to enhance visitor experiences, and maintain protected area values. (There is good co-operation between managers and tourism operators to enhance visitor experiences, and maintain protected area values). Tourism operators actually lead relevant elements of implementation including maintenance of key features (PA values).	3			
29. Fees	Although fees are theoretically applied, they are not collected. (Dapat ay may taripa ngunit hindi ito kinokolekta)	0			
If fees (i.e. entry fees or fines) are applied, do they help protected area management?	Fees are collected, but make no contribution to the protected area or its environs ( <i>Kinukolekta</i> ang mga taripa ngunit hindi ito nakakatulong sa protected area o kapaligiran nito)	1			
(Kung may mga taripa (i.e. entry fees or fines) nakakatulong ba ito sa mga tagapamahala?)	Fees are collected, and make some contribution to the protected area and its environs ( <i>Kinukolekta</i> <i>ang mga taripa at may maliit itong kontribusyon sa</i> <i>protected area at karatig pook nito</i> ) Established IPAF.	2			
INPUTS	Fees are collected and make a substantial contribution to the protected area and its environs (Kinukolekta ang mga taripa at may malaking ambag ito sa protected area at mga karatig pook nito)	3			
	IPAF contribute at least 30% of management expenses.				

Issue	Criteria		Tick only box per estion	Comment/Explana tion	Next steps
29a. Additional Points	At least 20% of IPAF is allocated to support sustainable financing activities.	+1		Sustainable financing activities may refer to development (e.g., livelihood, ecotourism).	
30. Condition of values	Many important biodiversity, ecological or cultural values are being severely degraded. (Maraming mga importanteng biodiversity, ecological o cultural values ang lubusang nasisira).	0		Please provide as much detailed information on this as possible. Clear cut-offs for each	
What is the condition of the important values of the protected area as compared to when it was first designated?	Some biodiversity, ecological or cultural values are being severely degraded. (May ilang biodiversity, ecological o cultural values ang tuluyang nasisira).	1		level have not been determined and will be determined from a review of all incoming reports.	
(Ano ang kondisyon ngayon ng mga pinahahalagahang bagay sa loob ng protected area kumpara nung una itong naitalaga?)	Some biodiversity, ecological and cultural values are being partially degraded but the most important values have not been significantly impacted. (May ilang biodiversity, ecological and cultural values ang may pagkasira ngunit ang mga pinakaimportante ay hindi gaanong naaapektuhan).	2			
OUTCOMES	Biodiversity, ecological and cultural values are predominantly intact. (Nananatiling buo ang mga Biodiversity, ecological at cultural values na natapuan nuon).	3			
Additional Points: Con	lition of values		I	1	
30a: Condition of values	The assessment of the condition of values is based on research and/or monitoring (Ang pagsusuri ng kondisyon ng mga mahalagang bagay sa loob ng PA ay base sa research and/or monitoring)	+1			
30b: Condition of values	Specific management programmes are being implemented to address threats to biodiversity, ecological and cultural values (May mga tukoy na programa para magpatupad ng mga gawain na tutugon sa mga banta sa biodiversity, ecological at cultural values)	+1			
30c: Condition of values	Activities to maintain key biodiversity, ecological and cultural values are a routine part of park management (Ang mga gawain upang mapanatili ang mga key biodiversity, ecological at cultural values ay kasama sa pangkaraniwang gawain ng park management)	+1			

Issue	Criteria	one	Tick only box per estion	Comment/Explana tion	Next steps
TOTAL SCORE					
PLEASE also collec	ct information on the status of TENURIAL INS	TRUMEN	ITS and SA	APA existing in the	PA.
(Note: No score ascrib relevant information to	eed to each answer. Qualifiers are provided to indicate support rating).	e progress	. Just tick a,	b, or c as applicable, a	nd provide
A. Tenurial Instrument	No tenurial instrument issued (Walang tenurial instrument na naibigay o naipalabas)	D			
Are there special	Tenurial instrument issued. (Nasa proseso ang pagbibigay ng tenurial instrument).	С			
uses that will require the issuance of a tenurial instrument?	Protected Area Community Based Resource Management Agreement (PACBRMA) signed/agreed upon.				
(May mga espesyal ba na pagkakaton na nangangailangn ng	Tenurial instrument issued but no CRMP. (Nakapagbigay ng tenurial instrument ngunit walang CRMP).	В			
pagbibigay ng tenurial instrument?)	PACBRMA signed/agreed upon and priority agreed activities implemented.				
PROCESS	Tenurial instrument issued with CRMP prepared & implemented. (May tenurial instrument na ipinagkaloob at may ginawa at isinakatuparang CRMP).	A			
	PACBRMA signed/agreed upon and at least 70% of agreed activities (including priority activities) implemented.				
B. Existence of SAPA or other agreements for commercial	Commercial users with no SAPA or other agreements. (May mga commercial users na walang SAPA).	D			
resource users	Commercial users with SAPA issued. (May mga commercial users na may SAPA na nasa proseso pa).	С			
	SAPA signed/agreed upon				
	Commercial user with SAPA or other agreements but not fully implemented ( <i>May commercial user</i> <i>na may SAPA</i> o <i>iba pang kasunduuan ngunit hindi</i> <i>lubos na ipinatutupad</i> )	В			
	SAPA signed/agreed upon and priority agreed activities implemented				

Issue	Criteria	Score: Tick only one box per question		Comment/Explana tion	Next steps
	Commercial user with SAPA and fully implemented <i>(May commercial user na may</i> <i>SAPA at lubos na naipatutupad)</i> SAPA signed/agreed upon and at least 70% of agreed activities (including priority activities) implemented	A			

NOTE: In computing final scores, "additional" points should not be considered BONUS. They must also be included in the divisor. That is, it is not possible to have a score higher than 100%.

## ANNEX 3. KEY INFORMANTS INTERVIEW QUESTIONNAIRE USED IN THE METT ASSESSMENT IN THE SEVEN B+WISER PROGRAM SITES

## Management Effectiveness Tracking Tool (METT) Key Informant Interview Form

(Instrumento sa Pagtatasa sa Bisa ng Pamamahala: gabay sa pag-interbyu ng mga taong may kaugnayan sa pamamahala o nakakaalam patungkol sa pinangangalagaang pook)

We are conducting this survey to gain additional insights on how the management of the Protected Area can be improved. Your honest and objective answer to each question asked will be highly appreciated. (*Ginagawa naming ang pagtatanong na ito upang makakuha ng karagdagang mga impormasyon na makakatulong upang higit na mapahusay ang pamamahala sa Pinangangalagaang Pook. Ang matapat at patas na sagot sa bawat katanungan ay aming ikatutuwa*).

Α.	Name (Optional): (Pangalan, optional)	Sex: (Kasarian)	Age: (Edad)						
В.	<b>B.</b> Current and past positions relevant to protected areas (Mga tungkulin sa kasalukuyan at nakaraan na may kinalaman sa Pinangangalagaang Pook): Pakilagay ang sagot sa ibaba. Magdagdag ng puwang kung kulang.								
(Ta hai	nth/Year to Month/Year agal: mula buwan/taon nggang buwan/taon)	Primary Organization and position in this organization: (Organisasyon na orihinal na kinalalahukan at position dito)	Position/Role/Relevance in relation to PA : (Tungkulin na may kinalaman sa Protected Area, halimbawa PAMB member, PASU, researcher, etc.)						
1.									
2.									
3.									
4.									
С.	in your organization? (e.g.,	nd on matters concerning the PA days per week, months/year)? Ga gay na may kinalaman sa PA (e.g	aano karaming panahon ang						
D.	What is your educational at	tainment? (Ano ang natapos mo	sa pag-aaral?)						
Ε.	What other preparations/training/skills do you have which enable you to prepare for your role in the PA? Anong mga paghahanda/kasanayan meron kayo para sa inyong tungkulin sa protected area?								
F.	F. What are the activities (e.g., research, training, PAMB meetings, IEC, law enforcement, biodiversity monitoring) related to PA management that you have participated in the past 1-3 years?								
	Activity	Specific Role	When (Year)						
	(Gawain)	(Naging Tungkulin)	(Kailan, Taon)						
l									

- (a) What do you believe is/are the key significance/value(s) of the protected area? Why? (Ano sa tingin ninyo ang kahalagahan ng Pinangangalagaang Pook? Bakit?
- (b) What is your observation regarding the biological and ecological conditions of the PA and of the management of the PA over the last three years (Please check appropriate space)? Ano ang inyong obserbasyon, sa kalagayan ng PA at pamamahala nito sa nakalipas na tatlong taon (pakitsek)?

No change <i>(walang pagbabago)</i>		
Improving (bumubuti)		
Fast deteriorating (mabilis sumasama)		
Slowly deteriorating (unti-unting sumasama)		
Reason (dahilan)		

- (c) What do you believe are the top 3 to 5 most significant issues/challenges/gaps related to effective management of the protected area? Why? (Ano sa tingin ninyo ang 3 hanggang 5 pinakamahahalagang isyu/problema/kakulangan patungkol sa epektibong pamamahala ng pinangangalagaang pook? Bakit?
- (d) What do you believe are the top 3 to 5 most important management solutions/interventions that need to be done to address the above problems/ issues/gaps? Why? (Ano sa tingin ninyo ang 3 hanggang 5 pinaka-importanteng solusyon na kailangang gawin upang matugunan ang mga isyu/problema/kakulangan na nabanggit upang mapabuti ang pamamahala ng pinangangalagaang pook. Bakit?)
- (e) What do you think are the top 3 pressing **threats to the integrity of the PA** that management should confront right now? *Anu-ano sa palagay ninyo ang mga tatlong* **pangunahing mga banta** sa kalagayan ng PA na dapat matugunan kaagad ng namamahala sa PA?
- (f) Please describe what you believe to be the degree and quality of (working) relationship between the DENR and the relevant local government(s), local communities, and resident indigenous peoples within and around the protected area? Why do you feel it is this way? (Pakilarawan ang relasyon ng DENR sa mga lokal na pamahalaan at mga nakatira sa loob ng pinangangalagaang pook. Paki-paliwanag ang inyong sagot.)

Relasyon sa mga local na pamahalaan: Relasyon sa mga kumunidad: Relasyon sa mga katutubo:

- (g) What have you observed to be the challenges and issues related to gender in PA management? For every challenge or issue mentioned, what do you propose as a means to address it? (Ano sa obserbasyon ninyo ang mga hamon o isyu na may kaugnayan sa kasarian sa pamamahala ng PA? Sa bawat hamon o isyu, ano ang nakikita ninyong paraan para matugunan ito?)
- (h) In what particular aspects of PA management do you think female managers can be more effective than male managers? Why do you say so? (Sa anong aspeto ng pamamahala ng PA maaaring mas epektibo ang mga babaeng tagapamahala kung ihambing sa mga lalaking tagapamahala? Bakit ninyo nasasabi ito?)
- (i) What do you believe are the possible constraints faced by women managers of PA? Please explain. (Ano sa paniniwala ninyo ang mga posibleng hadlang o balakid na nahaharap ng isang babaeng tagapamahala ng PA? Paki-paliwanag ang inyong sagot.)
- (*j*) Based on your observations, what is the value of the participation of indigenous people representatives to PA management? Please explain. (Base sa inyong obserbasyon, ano ang kahalagahan ng partisipasyon ng katutubong miyembro sa PAMB? Paki-paliwanag ang inyong sinabi.)
- (k) What do you think are the challenges indigenous people representatives encounter when participating in PA management? What can be done to resolve these challenges? (Ano sa palagay ninyo ang mga hamon na nararanasan ng katutubong miyembro ng PAMB? Ano ang magagawa para matugunan ito?)
- (*I*) Other relevant information you want to share which you think can help improve the management effectiveness of the *PA* (*Iba pang mga impormasyon na sa tingin nyo ay makakatulong upang higit na mapahusay ang pamamahala sa PA*?

# ANNEX 4. RAPID TRAINING NEEDS ASSESSMENT SURVEY FORM USED IN THE SEVEN B+WISER PROGRAM SITES

	Name:						
	Designation/Office:						
	Training/s Needs Procedure: Please: (1) Check the training topic(s) that are relevant for the effective execution of tasks/functions of each respondent/respondent group, (2) Rate the present level of knowledge on each checked topic per respondent/group	topic(s): choose from 1-5 (WHERE YOU ARE NOW)	knowledge/skill		Training/s Needs Procedure: Please: (1) Check the training topic(s) that are relevant for the effective execution of tasks/functions of each respondent/respondent group, (2) Rate the present level of knowledge on each checked topic per respondent/group as: 1-very low, 2- low, 3- medium, 4- high, 5- very high; (3) Determine the level of knowledge required on each of the topics checked per respondent/group as: 1- very low, 2- low, 3- medium, 4- high, 5- very high	lls on each of the checked topic(s): choose from 1- 5 (WHERE YOU	Level of knowledge/skill required on each of the checked topic(s): choose from 1-5 (WHERE YOU WANT TO BE)
1	Biodiversity Assessment			25	Benefit cost Analysis: basics		
	Biodiversity Monitoring Survey				Resource Acccounting and		
2	and Analysis			26	valuation		
	anarnarjoto				Environmental Impact		
3	Protected Area Management			27	Assessment		
5	Data Analysis and Knowledge			- /	Payments for Ecosystem		
4	Management			28	Services: Basics		
	Applications of results of				Analysis of administrative and		
5	assessment and monitoring			29	transactions costs		
	Forest Measurements and						
6	inventory systems			30	Environmental Governance		
0	inventory systems				Stakeholder analysis and		
					conflict identification and		
7	Forest Sampling			31	management		
,	Torest barriping			51	Integrated Environmental		
8	Growth and yield analysis (G/Y)			37	Management		
0	Growth and yield analysis (G/T)			52	Indigenous Peoples Concerns		
٩	Allometric Modelling			22	and Inclusion		
				55	Environment and Natural		
	Applications of G/Y analysis on				Resources Mgt. Policy		
10	sustainable harvest rates			24	Formulation		
	Watershed Assessment				Gender and inclusion		
11	watersned Assessment			- 55			
	Vulnerability Risk Assessment				Brokering, Negotiation, Facilitation and Consensus		
17	(VRA) and Climate Change			20	Building		
12	Climate Change Adaptation and			50	Guided Self Assessment on		
	Disaster Risk Reduction				Environmental Governance and		
	Disaster Kisk Reduction						
13				27	post assessment action planning		
13	Watershed Monitoring and			5/	pranning		
14	Analysis			20	IEC and Social Markoting		
14	Socio Economic Survey and			- 58	IEC and Social Marketing		
15	Analysis			20	METT and implications		
	Market Survey and Analysis				Monitoring and Evaluation		
10				40			
17	Entreneurship Development			11	Enhanced FLUP; MU Forstestry		
1/	Compliance and Enforcement for			-41	Citizen engament and score		
12	Forest and Biodiversity Laws			47	cards		
	Integrated Assessment Tools				Enhancing ADSDPP		
13	integrated / bacasment rools						
20	Remote monitoring technologies			лл	Enhancing FLUP		
	Eco-tourism development				Enhancing CLUP		
41	Leo tourism development			-+3	Enhancing CEOP		
22	Remote monitoring technologies			AC	Remote sensing		
22	Remote monitoring technologies			40	Nemole sensing		

# ANNEX 5. DETAILED THREATS ASSESSMENT RESULTS FOR ALL TEN PA SITES

THREATS	Based on Overall Score (Max score= 48, max % = 100)	Indicative Qualitative Rating	Location/Remarks
Garbage and solid waste	42 (88%)	High	<ul> <li>Dump sites located in Pintong Bukawe in San Mateo (1991-2000) and Baras</li> <li>San Luis as transfer station to San Mateo Landfill</li> <li>San Isidro Landfill in Montalban</li> <li>Solid waste dumps observed in some parts of Nangka River, Wawa River, Boso-boso River and Puray River</li> </ul>
Housing and settlement	42 (88%)	High	<ul> <li>Increasing influx of informal settlers in Rodrigues, Tanay, Baras, Antipolo, and San Mateo</li> <li>Continued selling of land claimants' rights</li> </ul>
Storms and flooding	41 (85%)	High	<ul> <li>Ondoy in September 2009 had submerged/flooded large part of Metro Manila</li> <li>Paenaan River, Brgy. Pinugay, Baras, Rizal are flood- prone areas</li> </ul>
HH sewage and urban waste water	40 (83%)	High	<ul> <li>At least 20% of the Antipolo population is potentially discharging untreated waste water into the ground which may affect ground water quality, streams or surface water</li> </ul>
Commercial and industrial areas	39 (81%)	High	<ul> <li>Slaughter houses, markets, gasoline stations, fast food restaurants, food processing plants, and commercial livestock farms, hospitals and manufacturing industries are among the most problematic industries</li> </ul>
Fire including arson	39 (81%)	High	<ul> <li>Summer grass fires killed seedlings and regenerations in So. Kasunungan with Tayabasan Sub-river basin</li> <li>Consecutive occurrence of forest fires In Baras and Tanay destroyed 20.6 ha of forest area</li> </ul>
Loss of support to communities and projects due to changes in political leadership	39 (81%)	High	
Hunting, killing and collecting terrestrial animals	38 (79%)	High	<ul> <li>Collection of near threatened species of frogs and reticulated python</li> <li>Hunting wild pigs, birds, deer, Alimucon, etc. in Anipa, Macaingalan, Puray (Rodrigues) almost all year round but the trend is decreasing due to livelihood program being provided by LGUs.</li> </ul>
Logging and wood Harvesting	38 (79%)	High	<ul> <li>Charcoal making is prevalent in Brgy Cuyambay, Tanay; In Rodirquez-Brgys Puray, Mascap, Macaingalan and Casile; Calawis, Antipolo; and Pinugay in Baras</li> </ul>
Industrial, mining and military effluents and Discharges	38 (79%)	High	<ul> <li>Mining and quarrying are mostly located in Montalban (Rodriguez, while small and medium scale garment factories are located in Antipolo, Teresa, Binangonan and Angono</li> </ul>
Landslides	37 (77%)	High	<ul> <li>Packet of landslides observed at the steep slopes of a hill on the Lower Footslope of Mt. Domire</li> </ul>
Droughts	37 (77%)	High	<ul> <li>Worst drought happened in 1980s El Nino</li> </ul>
Livestock farming and	35 (73%)	High	<ul> <li>Illegal pasture in Pinugay and Cuyambay in Tanay</li> </ul>

# Upper Marikina River Basin Protected Landscape (UMRBPL)

THREATS	Based on Overall Score (Max score= 48, max % = 100)	Indicative Qualitative Rating	Location/Remarks
Grazing	_		and Brgy San Rafael, Rodriguez
Erosion and siltation/deposition	35 (73%)	High	<ul> <li>The rivers of Montalban, Mango, Boso-boso, Tayabasan and Wawa exhibited signs of siltation</li> </ul>
Temperature extremes	35 (73%)	High	<ul> <li>The highest temperature in a day's period ranged from 34.7°C (January 1998) to 38.5°C (May 1987)</li> </ul>
Roads and railroads, include road-kill	34 (71%)	High	<ul> <li>The construction of roads near the remaining natural forests encourages land speculation and further settlement</li> </ul>
Mining/quarrying	33 (69%)	High	<ul> <li>Aggregate quarries exist in Barangay San Jose, Boso-boso Sub-river Basin, Barangay San Rafael and in the Montalban Sub-river Basin</li> <li>Aggregate quarries in barangays San Rafael, Balite and Burgos in Antipolo have silted up many of the smaller waterways</li> <li>Gold panning in San Jose Antipolo</li> </ul>
Utility and service Lines	33 (69%)	High	Telecom
Gathering terrestrial plants or plant products (non-timber)	33 (69%)	High	<ul> <li>Areas vulnerable to illegal forest products gathering: Boso-boso, Tayabasan, Wawa, Montalban</li> </ul>
Tourism and recreation Infrastructure	32 (67%)	Medium	<ul> <li>The major tourism and recreation areas are found in Sitio Wawa Montalban</li> <li>Rodiguez has a popular outdoor recreation area</li> </ul>
Sewage and waste water from protected area facilities	32 (67%)	Medium	Many households have no proper septic tanks
Loss of keystone Species	30 (63%)	Medium	
Annual and perennial non-timber crop cultivation	29 (60%)	Medium	<ul> <li>Among annual crops cultivated are corn, rice and other root-crops</li> </ul>
Utilization of portions of PA to upland vegetable & other agricultural/plantation crop farms	29 (60%)	Medium	<ul> <li>Upland cultivation at Boso-boso and Tayabasan Sub- river Basins</li> </ul>
Treasure Hunting	29 (60%)	Medium	<ul> <li>San Rafael, Montalban</li> <li>Gold exploration by outsiders with relatives inside the PA</li> </ul>
Effect of Influence groups on IP values and freedom to decide	28 (58%)	Medium	<ul> <li>Some IPs are vulnerable to outside influence/migrants; IPs are entice to sell their land rights</li> </ul>
Isolation from other natural habitat	27 (56%)	Medium	
Habitat shifting and Alteration	24 (50%)	Medium	<ul> <li>Forest conversion for industrial use in Antipolo (Calawais, San Jose, San Juan) and Baras (Pinugay)</li> </ul>
Deliberate vandalism, destructive activities or threats to protected area staff and visitors	23 (48%)	Medium	Local residents and visitors
Poison fishing	22 (46%)	Medium	<ul> <li>Decreasing occurrence of poison as well as electro- fishing by community residents due to improved IEC and fishing techniques in Calawis Antipolo and Casile, San Mateo</li> </ul>

THREATS	Based on Overall Score (Max score= 48, max % = 100)	Indicative Qualitative Rating	Location/Remarks
Dams, hydrological modification and water management/use	22 (46%)	Medium	<ul> <li>Spring, Water Tank, Baytangan Pintong Bocaue, San Mateo, Rizal; Brgy Calawis Antipolo;</li> <li>Spring, running water in Wawa, Brgy. San Rafael, Rodriguez, Rizal</li> </ul>
Destruction of cultural heritage buildings, gardens, sites etc.	22 (46%)	Medium	<ul> <li>Increasing population is also a threat to the IPs because even their traditional places for cultural activities are invaded by migrants</li> </ul>
Energy generation, including from hydropower dams	20 (42%)	Medium	
Invasive non-native/alien animals	27 (56%)	Medium	
Air-borne pollutants	27 (56%)	Medium	
Loss of cultural links, traditional knowledge and/or management practices	27 (56%)	Medium	
Agricultural and forestry effluents (e.g., excess fertilizers or pesticides)	25 (52%)	Medium	Observed in agricultural paddies and fields in the valley plain of Boso-boso Sub-river Basin
War, civil unrest and military exercises	24 (50%)	Medium	
Natural deterioration of important cultural site values	19 (40%)	Medium	
Flight paths	18 (38%)	Medium	Airplanes pass through UMRBPL
Activities of protected area managers (e.g., construction or vehicle use, artificial watering points and dams)	18 (38%)	Medium	Constructed 12 check dams in So. Apia, 16 check dams in Mt. Puro, So. Balon, and 26 check dams in Brgy. Calawis Proper (Antipolo City) to counteract erosion
Other 'edge effects' on park values	18 (38%)	Medium	
Increased fragmentation within protected area	20 (42%)	Medium	
Invasive non-native/ alien plants (weeds)	20 (42%)	Medium	
Earthquakes	20 (42%)	Medium	
Wood and pulp Plantations	19 (40%)	Medium	
Fishing, killing and harvesting aquatic resources	19 (40%)	Medium	<ul> <li>Calawis, Antipolo and San Mateo</li> </ul>
Research, education and other work-related activities in protected areas	19 (40%)	Medium	

#### Kaliwa Watershed Forest Reserve (KWFR)

THREATS	Based on Overall Score (Max score= 42, mx % = 100)	5	Location/Remarks
Utilization of portions of PA to upland vegetable & other agricultural/plantation crop farms (pollutive inputs, e.g., insecticides, pesticides)	36 (86%)	High	<ul> <li>Kaingin activities are located in Laiban, San Andres; Sta. Ines, Sto Nino, Tinucan, and Mamuyao in Tanay; and Lumutan in Gen. Nakar</li> <li>Land conversion from forests and protected areas into agricultural areas, and settlement areas</li> <li>215 HH in Cuyabo are in the PA, Province no updated SRPAO (2001)</li> </ul>
Annual and perennial non-timber crop cultivation	33 (79%)	High	<ul> <li>Abandoned kaingin areas of the IPs were occupied and being cultivated by non IPs (Lumutan side)</li> </ul>
Housing and settlement	31 (74%)	High	<ul> <li>Rampant selling of rights of IP PACBARMA in Cayabu, Sto Nino, Laiban, San Andres, Lumutan)</li> <li>Indiscriminate issuance of tax declarations within protected areas</li> </ul>
Storms and flooding	30 (71%)	High	All upland barangays in Tanay
Mining	29 (69%)	High	<ul> <li>Iron ore, manganese extraction and mineral exploration within boundaries of Lumutan, Gen. Nakar and Sta Ines, Tanay</li> <li>Illegal mining, (gold panning) in Lumutan and Lanatin River</li> <li>Manganese mining totally stopped in 2011 in relation to mining moratorium issued by the Provincial Governor</li> </ul>
Droughts (drying up of rivers and wells)/temperature extremes	28 (67%)	Medium	<ul><li>Tanay (Sta Ines, San Andres)</li><li>Nakar (Lumutan)</li></ul>
Energy generation, including from hydropower dams	26 (62%)	Medium	Planned Laiban dam
Landslides	25 (60%)	Medium	<ul> <li>The major landslide tragedy that happened in Nov 2004 needs rehabilitation of affected areas</li> </ul>
Erosion and siltation/ deposition (e.g., shoreline or riverbed changes)	25 (60%)	Medium	<ul> <li>Natural and man-made causes of erosion and landslides resulting to siltation of riverbanks, flooding, and destruction of valuable assets in low-lying areas</li> </ul>
Isolation from other natural habitat (e.g., deforestation, dams without effective aquatic wildlife passages)	24 (57%)	Medium	<ul> <li>Due to Laiban dam and deforestation, charcoal making</li> </ul>
Garbage and solid waste	23 (55%)	Medium	<ul> <li>Improper disposal of garbage by community residents in San Mateo (Pintung Bocaue)</li> </ul>
Loss of support to communities and projects due to changes in political leadership	23 (55%)	Medium	Indigenous peoples: Dumagats and Remontados (pending application of CADT with the NCIP)
Treasure hunting and cave resource collection	23 (55%)	Medium	<ul> <li>Gathering and collection of guano, stalactites/ stalagmites in Sangab</li> <li>Cave in Brgy. San Andres (Tanay, Rizal)</li> </ul>
Dams, hydrological modification and water management/use	22 (52%)	Medium	Laiban dam issue
Tree cutting and wood harvesting for	22 (52%)	Medium	Harvesting done for charcoal making happening

THREATS	Based on Overall Score (Max score= 42, mx % = 100)	Indicative Qualitative	Location/Remarks
charcoal making and fuelwood			<ul> <li>in Pagsangahan and Daraitan</li> <li>Cutting done in Lumotan and transported to Daraitan, Tanay</li> </ul>
Household sewage and urban waste water	22 (52%)	Medium	<ul> <li>Sta. Ines conducts household toilet inspection with NGOs and LGU officials and 4Ps</li> <li>Lumutan has no inventory of households with toilet facilities</li> </ul>
Effect of Influence groups on IP values and freedom to decide	22 (52%)	Medium	<ul> <li>IPs are vulnerable to outside influences</li> <li>There are IPs in Cuyabo, Tanay; Lumutan, Nakar</li> </ul>
Recreational activities and tourism	22 (52%)	Medium	<ul> <li>Potential tourism sites in Kaliwa overlap with the CADC</li> <li>KWFRs has great potential for eco-tourism that attracts local and foreign tourists, ex. Sangab cave -San Andres; waterfalls in Kinabuan, Mt. Irid (Sta Ines, Tanay), Tinipak; Daraitian, Mt. Batong Luzong, Cayabu waterfalls and natural park</li> <li>Pagsangajan River/ Masanga point; Tulaog cave; Mt. Irid</li> </ul>
Agricultural and forestry effluents (e.g., excess fertilizers or pesticides)	21 (50%)	Medium	Occurs in Sta. Ines in Tanay and Cuyabo
Habitat shifting and alteration	20 (48%)	Medium	<ul> <li>Kaingin- making is largely practiced in Lumutan, Cuyabu, Laiban and Sta. Ines</li> <li>In Cuyabu, kaingin reaches the PACBRMA areas already</li> <li>Pasture lands in Tanay and Nakar</li> </ul>
Loss of keystone species (e.g., top predators, pollinators etc.)	20 (48%)	Medium	<ul> <li>Threatened species are bleeding heart, fruit bat, king fisher, lawin, tikling, wild pig, etc.</li> <li>Philippine eagle cited at Mamasam Mt. in Nakar</li> </ul>
Fire including arson	20 (48%)	Medium	<ul> <li>Some fires are intentional; forest fire prone areas are Laiban, San Andres, Sta Inez, Sto Nino, Tinucan, Mamuyao in Tanay and Lumutan in Gen Nakar)</li> </ul>
Roads and railroads, include road-kill	20 (48%)	Medium	
Increased fragmentation within protected area	19 (45%)	Medium	
Hunting, killing and collecting terrestrial animals (including killing of animals as a result of human/wildlife conflict)	19 (45%)	Medium	<ul> <li>Being done by some armed people</li> <li>Hunting of wild animals by lowlanders during Lenten season</li> <li>Brgy. Santa Ines (near Mt. Irid in Tanay, Rizal; Lumutan, Gen. Nakar; and Pagsangahan;</li> <li>Species hunted: giant fruit bats, cloud rat, monkey, bayawak, turtle, wild pig, Tariktik, Kilyawan, Tagak, Martinez, Banoy, Batu- bato,Kulasisi, lawin mostly for pets and some for food</li> </ul>
Loss of cultural links, traditional knowledge and/or management practices	19 (45%)	Medium	There is conflicting interest of various groups of IPs in the utilization of forest and mineral resources
Natural deterioration of important cultural site values and Destruction of cultural heritage buildings, gardens,	17 (40%)	Medium	Affected are sacred grounds/burial sites;     waterfalls, worship area (Tanay, Lumutan)

THREATS	Based on Overall Score (Max score= 42, mx % = 100)	Indicative Qualitative Rating	Location/Remarks
sites etc.			
Marine and freshwater aquaculture	16 (38%)	Medium	
Gathering terrestrial plants or plant products (non-timber)	16 (38%)	Medium	<ul> <li>Rattan cutting by IPs in boundaries of Lumutan and Pagsangahan</li> <li>Dwarf trees and ugat-tuud gathering (roots of premium species) and selling in Quezon, Rizal, Manila; happening in Daraitan and Pagsangahan</li> </ul>
Activities of protected area managers (e.g., construction or vehicle use, artificial watering points and dams)	16 (38%)	Medium	
Invasive non-native/alien animals	15 (36%)	Medium	
Civil unrest and military Exercises	15 (36%)	Medium	Presence of armed/rebel groups

## Naujan Lake National Park (NLNP)

THREATS	Based on Overall Score (Max score= 48, max % = 100)	Indicative Qualitative Rating	Location/Remarks
Housing & Settlement	63 (84%)	Medium	Uncontrolled in-migration/ over population in Victoria
Storms	60 (80%)	Medium	<ul> <li>Illegal occupation in Socorro Pola, Calapan</li> <li>Victoria experiences widespread flooding during storms/rainy season</li> </ul>
Fishing/ Killing	58 (77%)	Medium	<ul> <li>Illegal fishing was reported in the municipalities of Pola, Victoria, Socorro and Naujan</li> </ul>
Agriculture & Forestry Effluence (Excess Fertilizers & Pesticides)	58 (77%)	Medium	Pola and Socorro have pesticide pollution problem
Utilization of portions of PA to upland vegetable & other agricultural practices/plantation crops (pollutive inputs)	54 (72%)	Medium	<ul> <li>Observed in the mountainous and hilly areas of Socorro, Victoria, and Pola</li> <li>Washing of sprayers go directly to the lake</li> </ul>
Household sewage and urban waste water	54 (72%)	Medium	• There are mostly no toilets in the communities
Effect of influence groups on IP values & freedom to decide	53 (71%)	Medium	<ul> <li>The Mangyan Tribes have preserved their original customs, beliefs and practices</li> <li>Some tribes strongly refuse to embrace lowland culture and are living in primitive ways</li> </ul>
Annual & Perennial non- timber crop cultivation	52 (69%)	Medium	<ul> <li>Slash and burn (kaingin) cultivation by IPs and community resident</li> </ul>
Garbage & solid waste	51 (68%)	Medium	<ul> <li>Pola: Improper disposal of household wastes and garbage</li> </ul>
Invasive non-native/alien animals	48 (64%)	Medium	<ul> <li>Presence of schistosomiasis-causing snails seen as threat to humans</li> <li>Janitor fish</li> </ul>
Roads & railroads, include road-kill	45 (60%)	Medium	Proposed Victoria-Sablayan road project
Utility & service lines	44 (59%)	Medium	Proposed bio-power plant in Pola
Pathogens	44 (59%)	Medium	Naujan has no regular water quality monitoring
Livestock farming & grazing	43 (57%)	Medium	There are piggeries along river banks in Naujan
Hunting, killing & collecting terrestrial animals	40 (53%)	Medium	<ul> <li>Observed in Panikihan, Casiligan, Tagbakin, Matuala and Putting Cacao in Pola; Montelago and Bayani in Naujan; Bugtong na Toog and Concepcion in Socorro; Duongan, Narciso and Malabo in Victoria</li> <li>Egg collection of migratory birds</li> </ul>
Invasive non-native/alien plants	40 (53%)	Medium	Water lily proliferates
Loss of keystone species	39 (52%)	Medium	<ul> <li>Depletion of endemic fish species such as Managat, Baylis, Bawuikin Pola;</li> <li>Reduction of occurrence/loss of migratory birds is reported in Naujan</li> </ul>
Loss of cultural links, traditional knowledge &/or mgt. practices	35 (47%)	Medium	
Trawling, blast and poison fishing	34 (45%)	Medium	Use of illegal fishing method reported in Naujan

THREATS	Based on Overall Score (Max score= 48, max % = 100 )	Indicative Qualitative Rating	Location/Remarks
Habitat shifting & alteration	33 (44%)	Medium	<ul> <li>Conversion into rice paddies</li> <li>For agricultural expansion on planting fruit-bearing trees; IPs planting cash crops for consumption</li> </ul>
Erosion & siltation	32 (43%)	Medium	<ul> <li>Siltation from barangays surrounding Naujan Lake</li> <li>Heavy siltation has already covered almost entirely the mouth of Malayas River in Victoria</li> <li>Silt has reduced the depth of Butas River by at least one meter</li> </ul>
Drought	32 (43%)	Medium	
Loss of support to communities & projects due to changes in political leaders	31 (41%)	Medium	
Temperature extremes	28 (37%)	Medium	
Sewage & waste water from PA facilities	27 (36%)	Medium	<ul> <li>Dumping site in Naujan</li> </ul>
Commercial & industrial areas	26 (35%)	Medium	<ul> <li>Mismanaged hotspring in Barangay Montelago</li> <li>Proliferation of commercial piggery and poultry raising along the river and shoreline</li> </ul>

## Mt. Masaraga Watershed Forest Reserve (MMWFR)

THREATS	Based on Overall Score (Max score= 48, max % = 100 )	Indicative Qualitative	Location/Remarks
Erosion & Siltation	23 (77%)	High	Balago, Oas
Landslides siltation and erosion	21 (70%)	High	<ul> <li>Rampant illegal logging triggered landslides/flooding in Polangui during 2011 typhoon</li> <li>Balago, Oas</li> </ul>
Fuelwood collection and extraction of non-timber forest products	12 (40%)	Medium	<ul> <li>Polangui charcoal making is rampant in Sto. Domingo, Camalig, Daraga &amp; Guinobatan</li> <li>Balago, Oas; Antic Ligao, Oras, Tabacco City</li> </ul>
Drought	12 (40%)	Medium	
Storms & flooding	11 (37%)	Medium	<ul> <li>Polangui was flooded during the occurrence of typhoon in 2011</li> <li>High rainfall data was recorded in 2011-2012</li> </ul>

## Mayon Volcano Natural Park (MVNP)

THREATS	Based on Overall Score (Max score= 45, mx % = 100 )	Indicative Qualitative Rating		Location/ Remarks
Volcano	38 (84%)	High	•	Direct threat to people and biodiversity (flora and fauna) Heavily affects Sto. Domingo area and also affects Southern part of Mayon, northern part of Legaspi and Tabaco Area
Storms and flooding	26 (58%)	Medium	•	Flooding threat in low lying areas in Sto. Domingo
Loss of support to communities and projects due to political changes	26 (58%)	Medium	•	This affects continuity of projects
Earthquakes	25 (56%)	Medium	•	Currently not a significant threat but may be a threat in the future due to 6 m fault line in eastern side of the Philippine trench
Livestock farming and grazing	23 (51%)	Medium Increasing	•	Present in almost all communities who have 2- 3 heads of animals
Gathering terrestrial plants or plant products (non-timber)	23 (51%)	Medium	•	Collection of orchids, pitcher plants, etc. inside the PA
Wood harvesting/cutting/ poaching	22 (49%)	Medium	•	Rampant in Sto. Domingo, Camalig, Daraga & Guinobatan Illegal logging for fuel wood and charcoal
Erosion and siltation/ deposition	22 (49%)	Medium	•	Sand deposits in waterways and lands due to past volcanic eruptions
Droughts	22 (49%)	Medium		
Utilization of portions of PA to upland vegetable & other agricultural/plantation crop farms	20 (44%)	Medium	•	Many farmers have farm lots inside the PA but settlements are outside Vegetable farm lots planted with sayote, sili, tomato, cabbage, corn, abaca, eggplant, beans in steep slopes Use of inorganic pesticide
Annual and perennial non-timber crop cultivation	19 (42%)	Medium	•	There were previous records on marijuana plantation Use of fertilizers and insecticides
Temperature extremes	16 (36%)	Medium	•	No data
Research, education and other work-related activities in protected areas	10 (22%)	Low	•	Not considered a threat really but there is a need conduct research and education work related to PA

# North Negros Natural Park (NNNP)

THREATS	Based on Overall Score (Max score= 60, max % = 100)	Indicative Qualitative Rating	Pertinent Notes/Location
Housing & Settlement	44 (73%)	High Increasing	<ul> <li>Occurring in all 11 LGUs situated within the Park</li> <li>Cutting of trees also done by the integrated social forestry program (ISFP) tenure holder for house construction</li> <li>Occurring even within the strict protection zone (SPZ) as well as other zones; there are 89 illegal structures (8,814 HH as of 2000) all over the SPZ</li> <li>298+HH inside SPZ (inventory with the PEMO and DENR) in Salvador Benedicto</li> <li>This issue has always been discussed within PAMB and an inventory has already been made in 2000</li> <li>Political interference a problem</li> </ul>
Annual and perennial non-timber crop cultivation	42 (70%)	High Increasing	<ul> <li>Multiple Use Zone (MUZ) planted with palay, sugarcane and high valued crops (HVC) in all 11 LGUs</li> <li>Farming by IPs and non IPs inside SPZ using kaingin method</li> </ul>
Illegal timber cutting and wood harvesting	40 (67%)	Medium Decreasing	<ul> <li>11 LGUs; logging of premium species</li> <li>Cutting of timber for charcoal in EB Magalona and Cadiz</li> <li>Violators are residing within Negros</li> <li>Unlicensed use of chainsaw is rampant</li> <li>High incidence in remote areas due to protection by armed persons</li> </ul>
Tourism and recreation infrastructure (unregulated)	37 (62%)	Medium Increasing	<ul> <li>Unregulated in Murcia, Don Salvador Benedicto, Victorias, Silay, San Carlos</li> <li>Pandanon Resort (established prior to declaration of NNNP as a PA)</li> <li>All LGUs have an inventory of existing tourism facilities within their localities</li> </ul>
Utilization of portions of PA to upland vegetable & other agricultural practices/plantation crops (pollutive inputs)	38 (63%)	Medium Increasing	<ul> <li>Found in all 11 LGUs; planted are cash crops and high value crops such as cauliflower, strawberry</li> </ul>
Landslides	36 (60%)	Medium Increasing	<ul> <li>High threat in Salvador Benedicto; also present in other LGUs such as Murcia, Talisay, San Carlos (landslides due to denuded condition/ steep slopes)</li> <li>All LGUs have information on landslide and other disaster prone areas in their DRRM plan</li> <li>Salvador Benedicto has FLUP with identified hazard prone area but no management intervention implemented yet</li> </ul>
Storms and flooding	35 (58%)	Medium Increasing	Storms affect all areas; flooding in low lying areas such Victorias, EB Magalona attributed to denudation
Erosion and siltation/ deposition (e.g., shoreline or riverbed changes)	33 (55%)	Elevated to High	Due to cropping practices and denuded forest condition
Household sewage and urban waste water	32 (53%)	Medium	<ul> <li>Majority of households (60%) don't have proper toilets</li> <li>Big problem in Cadiz</li> </ul>

THREATS	Based on Overall Score (Max score= 60, max % = 100)	Indicative Qualitative Rating	Pertinent Notes/Location
Recreational activities and tourism	31 (54%)	Medium	<ul> <li>Trekking (multiple entrance points, unregulated)</li> <li>Mountaineering, swimming</li> <li>Natural lake (Tinagong dagat-Silay)</li> <li>Swimming pool establishment is damaging due to excavation</li> </ul>
Agricultural and forestry effluents (e.g., excess fertilizers or pesticides)	30 (50%)	Medium Decreasing	<ul> <li>Inside the SPZ in all 11 LGUs</li> <li>Private lands outside NNNP uses pesticide</li> </ul>
Hunting, killing and collecting terrestrial animals (including killing of animals as a result of human/wildlife conflict)	32 (53%)	Medium Decreasing	<ul> <li>Target species: birds, wild pig, monitor lizard, pythons in 11 LGUS</li> </ul>
Droughts	30 (53%)	Downgrade to low	<ul> <li>Indian summer-San Carlos Sept/Aug- 2-6 weeks- no rain with intense heat</li> </ul>
Temperature extremes	29 (48%)	Downgrade to low	Related to drought
Fire including arson	29 (48%)	Medium Decreasing	<ul> <li>Usually occurs within MUZ and grassland areas</li> <li>Fire due to kaingin</li> </ul>
Garbage and solid waste	26 (43%)	Medium	<ul> <li>HH, resorts, farms (on-site garbage)</li> </ul>
Commercial and industrial Areas	29 (48%)	Medium	<ul> <li>Game fowl</li> <li>Resorts/organic farms</li> <li>Baciwa (w/o permit)</li> <li>Small scale sari sari store</li> <li>Telecom (Calanlandog, Murcia)</li> </ul>
Livestock farming and grazing	27 (45%)	Medium Decreasing	<ul> <li>11 LGUs (MUZ) goat, swine, cow, Carabao- backyard farming</li> <li>Game fowl farms covers about several hundred hectares in NNNP</li> <li>Immunization andother chemicals used cause danger to biodiversity; farming resulting to land compaction</li> </ul>
Gathering terrestrial plants or plant products (non timber)	27 (45%)	Shifted to Iow	<ul> <li>Pitcher plants, giant ferns, orchids</li> <li>Food consumption by IPs</li> <li>Decrease in collectible plants</li> <li>Increased propagation of these plants in lowland gardens reduced the threat to naturally growing plants</li> </ul>
Loss of cultural links, traditional knowledge and/or management practices	26 (43%)	Medium	This is occurring among IPs in Salvador Benedicto, San Carlos, and Cadiz
Earthquakes	25 (42%)	Medium	11 LGUs are affected
Wood and biomass fuel plantations	23 (40%)	Medium	<ul> <li>All LGUs with MUZ</li> <li>Threat to biodiversity due to indigenous species utilization</li> <li>Mahogany and Gmelina tend to dominate (invasive)</li> </ul>
Sewage and waste water from protected area facilities (e.g., toilets, hotels etc.)	23 (38%)	Medium	<ul> <li>Resorts (swimming pools) have no proper toilet facilities</li> <li>Some resorts are owned by PAMB members</li> </ul>
Loss of support to communities and projects due to changes in political leadership	22 (37%)	Medium	<ul> <li>In Salvador Benedicto, San Carlos, Cadiz</li> <li>IPs are given 55 ha land and are recognized by NCIP</li> <li>Erosion of cultural/indigenous cultural practices due to cross marriages</li> </ul>

#### Northern Sierra Madre Natural Park (NSMNP)

THREATS	Based on Overall Score (Max score= 45, mx % = 100 )	Indicative Qualitative Rating	Location/Remarks
Hunting, killing and collecting terrestrial animals	22 (49%)	Medium	Palanan, Divilacan; Multiple Use Zone MUZ
Storms	22 (49%)	Medium	•
Erosion/siltation/ deposition	20 (44%)	Medium	<ul> <li>Mostly in Bicobian Bay and to a lesser extent in Dimasalansan Bay</li> </ul>
Trawling, blasts and poison fishing	17 (38%)	Medium	<ul> <li>Coastal Municipalities/brgys (Palanan, Maconacon, Dinapigue, and Divilacan)</li> </ul>
Housing & Settlement	17 (38%)	Medium	<ul> <li>Divilacan, Baconacon (Dipudo, Dimasalansan, Bicobian) ; Palanan;</li> </ul>
Avalanches/ landslides	17 (38%)	Medium	Within SPZ Baconacon, Divilacan
Commercial and industrial areas	16 (36%)	Medium	<ul> <li>Pier in Divilacan and Maconacon;</li> <li>Regional Industrial Center: Cauayan as its growth center;</li> <li>Commerce &amp; Trade:Santiago City as its growth center</li> <li>Enhanced land speculation</li> <li>Planned fish port</li> </ul>
Roads	16 (36%)	Medium	Ilagan-Divilacan
Logging and Wood Harvesting	16 (36%)	Medium	Carabao logging/ timber cutting in MUZ, SUZ and Strict Protection Zone and Coastal Marine Zones
Temperature extremes	16 (36%)	Medium	Being experienced all over NSMNP

## Mt. Kanlaon Natural Park (MKNP)

THREATS	Based on Overall Score (Max score= 57, max % = 100)	Indicative Qualitative Rating/Trend	Location/Remarks
Annual and perennial non- timber crop cultivation	63 (72%)	High Controlled no expansion	<ul> <li>Occuring even within SPZ (Kanlaon, Cudcod); 500 ha within MUZ in Cudcod</li> <li>Sporadic in Minoyan (SPZ)</li> </ul>
Housing & Settlement	59 (68%)	High Increasing trend for MUZ	<ul> <li>15 brgys in 6 municipalities mostly within MUZ</li> <li>In Purok Repolyo, Brgy. Malaiba there are 9 houses-4 permanent and 5 temporary structures (SPZ)</li> <li>In Brgy Cudcod, Kanlaon (SPZ), there are 24 house structures</li> </ul>
Utilization of portions of PA to upland vegetable & other agricultural/plantation crop farms (pollutive inputs, e.g., insecticides, pesticides)	56 (64%)	Medium	<ul> <li>Occupants planting rice, corn, banana, coffee, cacao, root crops, sugarcane</li> </ul>
Effect of Influence groups on IP values and freedom to decide	50 (57%)	Medium	0

THREATS	Based on Overall Score (Max score= 57, max % = 100)	Indicative Qualitative Rating/Trend	Location/Remarks
Storms and flooding	49(56%)	Medium	<ul> <li>La Castellana (Biak na Bato)</li> <li>Cabagna-an</li> <li>Mansalanao</li> <li>Sag-ang</li> </ul>
Fire including arson	48 (55%)	Medium	<ul> <li>Fire due to kaingin and arson and honey collectors</li> <li>Fire destroyed 50 ha in Biak na bato in Murcia (EDC area)</li> <li>There was forest fire recorded in Kanlaon City and Cudcod</li> </ul>
Erosion and siltation/ deposition (e.g., shoreline or riverbed changes)	48 (55%)	Medium	0
Logging and wood harvesting	46 (53%)	Medium Decreasing due to continuous monitoring	In all sites
Volcanoes	46 (53%)	Medium	Eruption was recorded on Aug 10, 1996
Earthquakes	44 (51%)	Medium	0
Loss of support to communities and projects due to changes in political leadership	44 (51%)	Medium	0
Landslides	42 (48%)	Medium	0
Droughts	39(45%)	Medium	• El Nino was experienced in 2009 which resulted to forest fire
Destruction of cultural heritage buildings, gardens, sites etc.	39(45%)	Medium	0
Roads and railroads, include road-kill	37 (43%)	Medium Established, regulated	<ul> <li>Roads in buffer zone</li> <li>Minoyan (Rough roads)</li> <li>National highway traversing 2 barangays</li> <li>Peak of tourism is from Nov-March, open season for trekking as well</li> </ul>
Tourism and recreation infrastructure	36 (41%)	Medium Regulated & monitored	Bago and La Carlota (MUZ)
Natural deterioration of important cultural site values	36 (41%)	Medium	<ul> <li>Iliranan</li> <li>All rivers are scared in Apog-apog, Nagalaw in Cudcod</li> <li>Waterfall, caves being used as burial grounds</li> <li>Guinam-an, Minoyan</li> <li>Cabagtasan- Natuyau-Igmamatay falls</li> </ul>
Recreational activities and tourism	34 (39%)	Medium Controlled and being monitored	<ul> <li>Swimming</li> <li>Mountain trekking</li> <li>Bird watching in Guintubdan and Minoyan</li> <li>Mountain Resort in Kanlaon</li> </ul>
Livestock farming and grazing	34 (39%)	Medium	Game fowl raising in Murcia, La Carlota     (production area)

THREATS	Based on Overall Score (Max score= 57, max % = 100)	Indicative Qualitative Rating/Trend	Location/Remarks
Hunting, killing and collecting terrestrial animals (including killing of animals as a result of human/wildlife conflict)	33 (38%)	Medium Monitored with proper law enforcement	<ul> <li>Pola, Mailaiba</li> <li>Hunting bayawak for food</li> <li>400 households (Bukidnon)</li> <li>Cabagtasan; 121 ha area 346 HH members council PACBARMA holders</li> <li>Iliranan has CADT application</li> </ul>
Gathering terrestrial plants or plant products (non- timber)	33 (38%)	Medium	0
Deliberate vandalism, destructive activities or threats to protected area staff and visitors	33 (38%)	Medium	<ul> <li>Vandalism on trees, caves, crater, rocks</li> <li>Threats to enforcers and PA staff</li> <li>There was one PA staff killed in 2013</li> </ul>
Agricultural and forestry effluents (e.g., excess fertilizers or pesticides)	33 (38 %)	Medium	0
Dams, hydrological modification and water management/use	32 (37%)	Medium	Kanlaon, Cudcod, Minoyan (1990s)
Research, education and other work-related activities in protected areas	31 (36%)	Medium	On-going researches on environmental, physical, social, etc.
Household sewage and urban waste water	30 (34%)	Medium	

1.	Visitors facilities (56%)	<ul> <li>MAO with Bago, La Carlota and Kanlaon Ecotourism activities</li> <li>La Carlota has stand-by rescue for safety</li> </ul>	
2.	Commercial tourism operators (57%)	• Tour operators from Negros Oriental (Cebu)	
3.	Fees (57%)	Fees collected form ecotourism (trekking)	Establishment of users fees for water users; accessing/establishment of IPAF
4.	Condition of values (69%)	PACBARMA (4) approved by PAMB and awaiting for DENRs confirmation	Address gender issues in the issuance of tenurial instruments

## Mt. Kitangkad Range Natural Park

THREATS	Based on Overall Score (Max score= 78, max % = 100)	Indicative Qualitative Rating	Pertinent Notes/Location
Storms and flooding	41 (53%)	Medium	<ul> <li>Typhoon Pablo and Sendong heavily affected Cagayan de Oro City</li> <li>CDO River Basin program implemented to prepare for future occurrences</li> </ul>
Effect of Influence groups on IP values and freedom to decide	39 (50%)	Medium	<ul> <li>Some IPs are enticed to sell their lands to outsiders</li> <li>Demands for a new lifestyle of IPs affect the protection of the area</li> </ul>
Hunting, killing and collecting terrestrial animals	38 (49%)	Medium	<ul> <li>Among 5 eagles released, 3 were killed</li> <li>Hunting and killing are being observed in Sumilao, Impasug-ong and Lantapan</li> </ul>
Erosion/siltation/ deposition	36 (46%)	Medium	<ul> <li>Landslide happened in Songco, Lantapan during typhoon Pablo</li> </ul>
Research, education and other work- related activities	36 (46%)	Medium	<ul> <li>Some researchers do not secure gratuitous permits and FPIC</li> <li>PASu staff claimed that all researchers secured these documents because the Kitanglad Guard Volunteers (KGV) check these papers</li> <li>There are some negative perceptions by few residents about researches since they are not given the results</li> <li>Research causes some indirect damage to the site</li> </ul>
Utilization of portions of PA to upland vegetable & other agricultural practices/plantation crops (pollutive inputs)	36 (46%)	Medium	<ul> <li>Situated in upper portion of Dalwagan Malaybalay</li> </ul>
Annual and perennial non-timber crop cultivation	34 (41%)	Medium	Upper portion of Dalwagan Malaybalay
Avalanches/landslides	34 (41%)	Medium	<ul> <li>Minor landslides aggravated by typhoon Pablo happened in Malaybalay and Lantapan</li> </ul>
Recreational activities and tourisms	31 (40%)	Medium	<ul> <li>Continue the implementation of PAMB resolution regulating the number of</li> </ul>

THREATS	Based on Overall Score (Max score= 78, max % = 100)	Indicative Qualitative Rating	Pertinent Notes/Location
			persons per group allowed to climb MKRNP
Housing & Settlement	28 (36%)	Medium	<ul> <li>Only one community settlement (Alawon, Libona) comprise of 12 to 15 households existed before the PA declaration</li> <li>Other barangays have transient farmers in the buffer zone; with shanties to serve as resting places</li> </ul>
Fire including arson	28 (36%)	Medium	<ul> <li>Fires were reported in 1983 and 1997</li> </ul>
Droughts and droughts	27 (35%)	Medium	<ul> <li>1982-1983 drought caused forest fires that burned 6000 ha of primary forest</li> <li>1998 drought burned 300 ha grassland and forest lands</li> </ul>

#### Mt. Apo Natural Park

	Based on Overall Score (max score=93, max % = 100)	Trend	Location/ Pertinent Notes
Housing and settlement	78 (84%)	High (Up)	<ul> <li>Kapatagan; Balutakay; Ilomavis(Kidapawan); Tudaya; Boholanon, Magpet; New Isael, Alegre; Binaton;</li> <li>Started in 1980s-90s</li> </ul>
Utilization of portions of PA to upland vegetable & other agricultural/plantation crop farms (pollutive inputs)	76 (82%)	High (Up)	<ul> <li>Vegetables and other crops:</li> <li>Daliaon; New Israel (cutflowers); Guianga; Kapatagan;</li> <li>DA Project Sites (SMAP); Ilomavis; Muaan (outside PA)</li> <li>Started in 70s-80s</li> </ul>
Annual and perennial non- timber crop cultivation	68 (73%)	High (Up)	<ul> <li>Coffee, cacao, rubber, banana, abaca, vegetables &amp; 30% perennial</li> <li>Kapatagan; Balutakay; New Israel; Manobo; Bongolanon; Perez; Hinaib; Balabag; Buhay; Indangan, Tibolo</li> <li>Banana plantations started 10 years ago</li> </ul>
Commercial and industrial areas	63 (68%)	High	<ul> <li>Covers about 2% of total PA area, particularly in Ilomavis; Kapatagan; Balutakay; Types: gas station, auto repair shop (talyer), input suppliers stores/agrichem, grocery, videoke</li> </ul>
Loss of cultural links, traditional knowledge and/or management practices	59 (63%)	Medium (Up)	<ul> <li>Traditional farming technologies, use of indigenous tools lost now; shifted to modern/mechanized farming (e.g., tractors)</li> </ul>
Garbage and solid waste	58 (62%)	Medium	<ul> <li>Trekkers' garbage</li> <li>Plastic bags from banana plantations</li> <li>Pesticide bottles from farms</li> <li>Waste Management is practiced minimally</li> </ul>
Agricultural and forestry effluents (e.g., excess fertilizers or pesticides)	56 (60%)	Medium	Use of inorganic inputs
Effect of Influence groups on IP values and freedom to decide	56 (60%)	Medium	<ul> <li>IPs now more organized and aware of their rights, however, support received from</li> </ul>

THREATS	Based on Overall Score (max score=93, max % = 100)	Indicative Qualitative Rating and Trend	Location/ Pertinent Notes	
				politicians makes them vulnerable to political patronage/interest and can divide them
Recreational activities and tourism	54(58%)	Medium	•	Trekking (Balutakay), spelunking, boulder challenge in Sta Cruz; 250 pax/year (2 trails) in Makilala
Erosion and siltation/ deposition (e.g., shoreline or riverbed changes) (10.4)	54 (58%)	Medium	•	In Balutakay, near roads and creeks; also in Bansalan, Makilala
Loss of support to communities & projects due to changes in political leadership	53 (57%)	Medium	•	Change in political leadership could shift priorities
Energy generation, including from hydropower dams (3.3)	51 (55%)	Medium (Up)		Geothermal operation in Ilomavis; HEDCOR in Sibulan; mini-hydro in Old Balutakan and Kinarum
Tourism & Recreation Infrastructure	49 (53%)	Medium (Up)	•	Resort, zip line, swimming pool, cottages in Kapatagan, Makilala, New Israel; started 15 years ago
Hunting, killing & collecting terrestrial animals	49 (53%)	Medium (Up)		Civet cat (Kapatagan), wild pig and deer (Sibulan), monkey and wild pig (Balutakay), birds such as parrot for pet, for food, uses traps; also in Perez (Kabonegro)
Roads, including road kills	48 (52%)	Medium (Up)	•	Balutakay, Kapatagan, roads becoming wider and longer
Loss of keystone species	48 (52%)	Medium (Up)	•	Philippine Eagle, wild pig, deer, loss of pollinators, hornbill, waling-waling, tarsier, flying lemur
Avalanche/landslide	48 (52%)	Medium		
Gathering terrestrial plants/plant products	47 (51%)	Medium (Up)	•	Rattan, charcoal and firewood (Balutakay); wild orchid, buyo-buyo, fern (kabonegro) in Bongolanon, kabonegro (Perez)
Illegal logging/Wood harvesting (timber poaching only)	47 (51%)	Medium	•	Firewood, timber poaching, use of chainsaw (Balitakaw, Buhay, Alegre), Koronan, Santa Cruz.
Natural deterioration of important cultural site values	46 (49%)	Medium		
Household sewage and urban wastewater	45 (48%)	Medium	•	No sewerage system (Makilala)
Dams, hydrological modification and water management/use	43 (46%)	Medium	• • •	2 dams- Bulutukan Min-ihydro- Kinaib HEDCOR- Sibulan and Tudaya Irrigation dam in Balutakay
Increased fragmentation with PA	42 (45%)	Medium	•	Affects wildlife
Utility and service lines (e.g., electricity cables)	42 (45%)	Medium (Up)		
Storms and flooding	41 (44%)	Medium (Up)	•	Flashflood- Bulatukan and Ilomavis (2006) Flood –Sta. Cruz (2006), Malasila and Marber Rivers
Fire including arson	41 (44%)	Medium	•	Kaingin, 1998 Forest Fire (Monsayon) Drought can cause forest fire
Isolation from other natural habitats	41 (44%)	Medium	•	Existence of geothermal plant has damaged natural habitat of insects thus this migrated to agricultural areas causing crop damage (forest leaf hoppers on lanzones)
Deliberate vandalism, destructive activities or threats	37 (38)	Medium (Up)	•	Breaking of bottles, 'I was there' on rocks on Mt. Apo peak; cult structures on (religious

THREATS	Based on Overall Score (max score=93, max % = 100)	Indicative Qualitative Rating and Trend	Location/ Pertinent Notes
to PA staff and visitors			statues) in caves
Alien/Invasive species plants (weeds)	36 (39%)	Medium	<ul> <li>Buyo-buyo (In Makilala), invades open areas and prevents growth of trees</li> </ul>
Sewage and wastewater from PA facilities	36 (39%)		<ul> <li>Swimming pool wastewater (Ilomavis)</li> <li>Toilets (hotels, resorts, residences)</li> </ul>
War, civil unrest and military exercises	36 (39%)	Medium	<ul> <li>Sitio Kinaub (2010), 70s high civil unrest, rebels in forested areas</li> </ul>
Droughts	35 (38%)	Medium	<ul> <li>Experienced in 1984, 1988, 1998</li> <li>Lead to forest fires</li> </ul>
Research, education and other work-related activities in PA	34 (37%)	Medium	<ul> <li>Several researches conducted such as potato research, firefly, bulb onion trails, but no PA guidelines on research</li> </ul>
Temperature extremes	33 (35%)	Medium	Ice flakes 10 years ago

#### ANNEX 6. METT ASSESSMENT RESULTS AND DRAFT ACTION PLANS FOR THE TEN PAS IN THE SEVEN B+WISER PROGRAM SITES (FOR REFINEMENT)

#### Criteria/Score Weaknesses/ **Suggested Adaptive** In-Charge Time Requirements Milestones Issues/Gaps Mat. Actions/ Next Frame Steps RA for NSMNP (RA IEC on Republic Act 9125 B+WISER will provide 1<sup>st</sup> week Feb 2014 IEC materials. other Legal Status Info campaign conducted 1) (100%) 9125) not known to TA on IEC for on IEC logistical support and IEC materials prepared people, especially the PAMB TWG: Info (transportation, food, IPS officer of PENRO, etc.); CENRO. Provincial TA support from ENRO and MENROs; B+WISER Mabuwaya F.; ISU; and WWF RA 9125 does not have Update draft IRR and TWG, BWISER and 2Q 2014 till **B+WISER** support Draft IRR updated and an approved IRR but resubmit for DENR PASU to follow up: completion resubmitted draft already submitted approval BWISER to provide TA to PAWB in updating, if necessary PAMB TWG PENRO: **B+WISER TA** PA regulations; 2) PA regulations (1) Fear of Loss of (1) Provide safeguards/ 2014 to present (82%) PASU: rattan livelihood: regulations to limit the Logistical support; Meetings: Execom; LGU commitment Trainings; (2) People are not migration of people Sustainable livelihood aware of the MENRO (5); and support into PA: **Provincial ENRO** regulations outside support (2) Implementation of open their locality; and closed season for (3) SRPAO not hunting and fishing; updated (complete (3) Provision of alternative, census done in sustainable livelihood 1997), results and support to existing submitted to sustainable income PAWB, may be sources lost; (4) Strengthen, harmonize, clarify, disseminate Fluctuating population PA regulations policies within PA especially during (82%) PAMB TWG PENRO; 2014 to present PA regulations; **B+WISER TA:** election (recruitment of (e.g., zones, tenure) PASU: Meetings: Logistical support; so that LGUs, DENR, voters by LGUs)

#### 1. **NSMNP APPROVED ACTION PLAN FOR IMPROVING MANAGEMENT EFFECTIVENESS**

Criteria/Score	Weaknesses/ Issues/Gaps	Suggested Adaptive Mgt. Actions/ Next Steps	In-Charge	Time Frame	Requirements	Milestones
		<ul> <li>IPS, and communities would have clear understanding and guidance;</li> <li>(5) Strengthen capacity for dispute resolution;</li> <li>(6) Formulate LGU support ordinances;</li> <li>(7) Update SRPAO;</li> <li>(8) Establish good database of regulations and PA occupants;</li> <li>(9) Harmonize implementation of policies (overlapping jurisdiction, roles, and functions of LGUs, NCIP and DENR)</li> </ul>	PAMB Execom; MENRO (5 ); Provincial ENRO		LGU commitment and support	Trainings; Sustainable livelihood support
3) Law Enforcement (62%	<ol> <li>Inadequate equipment, vehicles, and tools for law enforcement;</li> <li>Not enough training on law enforcement in San Mariano;</li> <li>Inadequate staff for law enforcement;</li> <li>Enforcement records of DENR and PNP do not match;</li> <li>ISEPTF meetings not sustained;</li> <li>WWF and</li> </ol>	<ol> <li>Updating of Bantay Gubat/Bantay dagat, Bantay Sanktuaryo List/prof;</li> <li>Provision of equipment, speed boat, fuel, uniforms ELE, insurance, law enforcement training;</li> <li>Establishment/ Strengthening of DENR prosecution team/office;</li> <li>Strengthen legal assistance (Identify green court for Isabela Province);</li> </ol>	PAMB TWG PasU BWISER	Continuing	B+WISER to provide TA, Logistics, Resources, Sharing and Leveraging	<ol> <li>Updated information on Bantay Gubat/ Dagat/Sanktwaryo;</li> <li>Strengthened law enforcement/ environmental compliance;</li> <li>Reduced incidence of violations;</li> <li>Procurement of more equipment, tools, vehicles and leveraging activities towards this;</li> <li>Prosecution staff/office identified by DENR;</li> <li>Strengthened staff/ manpower including</li> </ol>

Criteria/Score	Weaknesses/ Issues/Gaps	Suggested Adaptive Mgt. Actions/ Next Steps	In-Charge	Time Frame	Requirements	Milestones
Law Enforcement (62%)	B-+WISER programs almost similar in Abuan watershed/ river and thus, need to coordinate, complement, and synergize;	<ul> <li>(5) Strict implementation of forest laws, rules and regulations and management zones and PA regulations;</li> <li>(6) Strengthen the DENR- LGU-NGOs, community partnership in safeguarding the PA;</li> <li>(7) Strengthen use of science and innovative methods in law enforcement (e.g., Spatial Monitoring and Reporting tool or SMART software training and implementation);</li> <li>(8) Involve the Provincial Anti-Illegal Logging Task force especially the uniformed personnel in the ELE action planning and implementation;</li> <li>(9) Strengthen/sustain anti-illegal logging task force at municipal level;</li> <li>(10) Strengthen convergence effort in the implementation of EO 23 (PNP, DENR, other participating agencies)</li> <li>(11) Harmonize and Complement efforts in</li> </ul>	PAMB TWG PasU BWISER	Continuing	B+WISER to provide TA, Logistics, Resources, Sharing and Leveraging	volunteers; (7) ELE training; (8) Stronger collaboration with the LGUs and communities; (9) ELE training (including on SMART) (10) Stronger collaboration/ partnerships (LGUs, Task Forces, Communities, DENR, PAMB)

Criteria/Score	Weaknesses/ Issues/Gaps	Suggested Adaptive Mgt. Actions/ Next Steps	In-Charge	Time Frame	Requirements	Milestones
		Abuan River with B+WISER, WWF & other programs within the PA and surrounding areas				
(2) PLG has 3 (3) There is ar		angays within the PA have an Environmental Law Enforceme	ent Action (ELE) Plan. Drat	it have already been p	prepared by PAMB memb	pers,
4) PA objectives (65%)	<ol> <li>Weak implementation of some aspects of PA plan;</li> <li>Poor knowledge about the PA objectives;</li> <li>Concern on impact of PA on livelihoods</li> </ol>	<ol> <li>Need to strengthen protection efforts to meet objectives;</li> <li>May need to improve/ rethink PA objectives in the enhanced PA plan</li> </ol>	PAMB TWG PasU B+WISER	2014 and 2015 as the PA plan is being enhanced	B+WISER TA; Logistics	Updated/ Strengthened PA objectives
5) PA design (77%)	<ol> <li>Design and documentation of process not distributed to PAMB members for review;</li> <li>PA area too big to be effectively managed given budget and resources limitation;</li> <li>LGUs such as Divilacan need to expand their settlement areas and go to areas covered by SUZ, particularly in the light of flooding</li> </ol>	<ol> <li>Proper documentation of process and public consultation in the updated plan;</li> <li>PAMB to discuss the issue on LGU need for expansion of settlement areas within PAMB</li> </ol>	PAMB TWG PasU B+WISER			

Criteria/Score	Weaknesses/ Issues/Gaps	Suggested Adaptive Mgt. Actions/ Next Steps	In-Charge	Time Frame	Requirements	Milestones
expansion is the SUZ	. However, there are existing	straints e.g., Need to expand ng settlements inside the PA p road-building could encourage (1) Inform the community of the boundaries and	articularly as three municip	alities (Divilacan, Mad		
(60%)	<ul> <li>properly marked and 100% demarcated on the ground boundary. However, monumenting MUZ of 3 municipalities and SUZ are not generally known or visible to communities and residents, some markers were removed.</li> <li>(2) No statistical data and maps on boundary demarcated by municipality and Barangay</li> </ul>	<ul> <li>monuments;</li> <li>(2) Mapping of demarcated boundaries;</li> <li>(3) Intensive community IEC using PA plan indicating there in the corners &amp; boundaries of the PA;</li> <li>(4) Sustain FSSI and Mabuwaya bio-fencing in San Mariano to Ilagan (32km)</li> </ul>	BWISER			
7) Management Plan (78%)	<ol> <li>Insufficient funds for implementation</li> <li>Need for honest to goodness harmonization of plans of various stakeholders operating inside the PA (DENR, MGB, LGU, etc.) and surrounding</li> </ol>	<ol> <li>Clearly delineate functions of LGUs, PAMB, DENR and NCIP in terms of park management;</li> <li>Harmonize PA plan and other local plans (etc. CLUP, ADSDPP, LCCAP and CCA/DRRM)</li> </ol>	PAMB TWG PasU BWISER			

Criteria/Score	Weaknesses/ Issues/Gaps	Suggested Adaptive Mgt. Actions/ Next Steps	In-Charge	Time Frame	Requirements	Milestones
8) Regular Work Plan (73%)	<ul> <li>areas;</li> <li>(3) Mayor members do not attend, only their representatives who are inconsistent in re- echoing agreements to the LGU;</li> <li>(4) Some PAMB members were constrained from attending meetings due to lack of financial means</li> <li>(1) Annual Work and Financial Plan for</li> </ul>	<ol> <li>To provide funding of the PA through</li> </ol>	PAMB TWG PasU			
	<ul> <li>the PA is only prepared when there is IPAF collection/ access.</li> <li>If none, the PA is wholly dependent on funds available to the DENR, PAWZCM and CENRO.</li> <li>Therefore, the activities are based on the DENR work plan.</li> <li>(2) While NSMNP's RA specifies GAA allocation amounting to 5 million,</li> </ul>	<ul> <li>inclusion to the General Appropriations Act;</li> <li>(2) Permanent personnel staff to be assigned in the PA;</li> <li>(3) Identify sustainable source of funding</li> </ul>	BWISER			

Criteria/Score	Weaknesses/ Issues/Gaps	Suggested Adaptive Mgt. Actions/ Next Steps	In-Charge	Time Frame	Requirements	Milestones
	<ul> <li>Malacanang removed budget line item. No funds were made available because of the absence of IRR.</li> <li>(3) The PA waits for the IPAF to accumulate before the funds are accessed due to tedious documentary requirements. No problem in accessing IPAF, but there is a need for adequate and sustainable financing.</li> </ul>		PAMB TWG PasU BWISER			
	comes from entrance fees	and rattan permits, AWPs are		review.		
9) Resource Inventory (65%)		Implementation of research studies to include resource inventory; Update information/establish good data base resources particularly the fre	B+WISER			

Criteria/Score	Weaknesses/ Issues/Gaps	Suggested Adaptive Mgt. Actions/ Next Steps	In-Charge	Time Frame	Requirements	Milestones
10) Protection systems (58%)	<ol> <li>Mining operation close to the buffer zone provides opportunity for encroachment of people into the PA;</li> <li>IP PAMB members have important role in forest/ biodiversity protection but not capacitated;</li> <li>Need for the ELE Action plan to be legitimized/ approved by LGUs and PAMB</li> </ol>	<ol> <li>Mobilize, strengthen, and provide proper training and incentives to the different community volunteer guards and task forces;</li> <li>Properly inform the LGUs and get their formal commitment and support of the ELE Action Plan for NSMNP</li> </ol>	<ol> <li>Province and task forces;</li> <li>Deputized/voluntee r groups</li> </ol>			
	ordinance protecting salt v					
11) Research (70%)	There is no proactive and bottom-up determination of R&D agenda	<ol> <li>Research on the population of Isabela Oriole and the Bitatawa sp.;</li> </ol>	<ol> <li>PAMB TWG with assistance of ISU, Mabuwaya, BWISER and DENR-ERDS</li> </ol>			
		(2) PAMB to have more proactive role in the formulation of R&D to better link to PA management needs	(2) B+WISER will provide TA in the R&D formulation			
Note: Research condu	Lucted by Mabuwaya Found	lation in Divilacan- results inco	rporated in monitoring/mana	gement activities of	the PA and by LGUs	

Criteria/Score	Weaknesses/ Issues/Gaps	Suggested Adaptive Mgt. Actions/ Next Steps	In-Charge	Time Frame	Requirements	Milestones
12) Resource management (70%)	Resource management activities currently weak and needs strengthening	<ol> <li>Conduct CC adaptation and vulnerability assessment;</li> <li>Conduct updated inventory of biological and other key PA resources;</li> <li>Conduct watershed characterization;</li> <li>Implement coral reef rehabilitation and restoration training;</li> <li>Identify/implement sustainable livelihood;</li> <li>Review permitting and tenure issuance and management system including needed additional regulations;</li> <li>Conduct PA population survey (SRPAO updating)</li> </ol>	B+WISER PAMB TWG Isabela State University (ISU) Mabuwaya Foundation			
13) Staff numbers (52%)	<ul> <li>(1) No permanent staff or personnel. PASU is the only organic PA staff. But, in CENRO Palanan, it has 40 staff that works for the PA;</li> <li>(2) Lack of incentives for both PA staff and PAMB communities;</li> <li>(3) In the</li> </ul>	<ol> <li>Work towards establishing a PA management office with permanent PASU, full staff complement and adequate financial resources;</li> <li>Study the implications of the Rationalization Plan on NSMNP management and see how the PA can maximize benefits/</li> </ol>	DENR and LGUs to augment as agreed			

Criteria/Score	Weaknesses/ Issues/Gaps	Suggested Adaptive Mgt. Actions/ Next Steps	In-Charge	Time Frame	Requirements	Milestones
	rationalization plan, there will be two permanent PASu assigned to Region 2. These PASu will concentrate on Batanes and NSMNP while they have other duties in some PAs in Region 2.	mitigate possible constraints				
Note: DENR has 38 to other PA activities too	forest rangers, but DENR s	taff activities including of these	e forest rangers inside NSM	NP concentrated on N	National Greening Progra	m while forest protection/
14) Staff training (67%)	<ol> <li>Need for re- orientation of PAMB members and PA staff particularly the new ones on their roles and functions and pertinent laws, regulations, manual of operations;</li> <li>All of the staff of the PA consider themselves over trained but they are getting old and can no longer do difficult field work</li> </ol>	<ol> <li>Conduct re-orientation of PAMB and PA staff on PA management;</li> <li>Identify additional staff training needed in relation to the enhanced PA plan;</li> <li>Identify ways and formal mechanism by which the LGUs can contribute more staff time for PA management aside from their duties in the PAMB. This will entail integrating in LGU staff's existing duties and responsibilities additional PA management functions.</li> </ol>	B+WISER Mabuwaya Foundation ISU DENR			
15) Current budget (62%)	Lack of honest to goodness support for PA management from	Need to explore other budgetary sources for the PA, e.g., from private	DENR LGU			

Criteria/Score	Weaknesses/ Issues/Gaps	Suggested Adaptive Mgt. Actions/ Next Steps	In-Charge	Time Frame	Requirements	Milestones
	government, DENR, other agencies and LGUs.	sector/ NGOs/ other NGAs Generate additional revenues and sustainable financing (e.g., PES)				
Note: LGUs' present s	source of funds for their PA	-related activities come from [	ORRM funds provided by the	he national gov't		
16) Security of budget (48%)	Current budget not enough since revenue collection is not secure and mostly comes from DENR budget and LGUs	<ol> <li>Ensure adequacy and sustainability of budget;</li> <li>Secure regular funding through the GAA</li> </ol>	DENR and LGU			
17) Management of budget (58%)	<ul> <li>(1) Not enough funds to manage but 80% of available funds being spent on intended activities;</li> <li>(2) IPAF collection has to be widened and enlarged</li> </ul>	<ol> <li>Conduct training on funds/ revenue generation;</li> <li>Explore sustainable fund sources</li> </ol>	PAMB			
18) Equipment (40%)	Extreme lack of equipment particularly patrol boats/mobility of personnel/vehicle and forest guards	<ol> <li>Provide vehicle to all municipalities within the PA for patrolling;</li> <li>Provide the ff equipment for patrolling and BMS: Hand-held radios, camera with GPS, sleeping bags, Heavy duty flashlights, boots, tent and computers;</li> <li>Provide patrol boat for all 2 sub-offices of DENR;</li> <li>Seek support from the province and others</li> </ol>	PAMB DENR LGU to augment			

Criteria/Score	Weaknesses/ Issues/Gaps	Suggested Adaptive Mgt. Actions/ Next Steps	In-Charge	Time Frame	Requirements	Milestones
19) Maintenance of Equipment (42%)	Lack of budget for maintenance		PAMB DENR LGU			
20) Education and awareness (52%)	<ul> <li>(1) NGP overpower all activities at present including IEC;</li> <li>(2) Not all PA areas are covered in existing IEC</li> </ul>	<ol> <li>Involve schools (elementary &amp; high school) in the conduct of IEC and coordinate with DepEd and school officials;</li> <li>Conduct IEC training;</li> <li>Strengthen the IEC especially to community adjacent to PA</li> </ol>	PAMB DENR LGU B+WISER to provide TA on IEC			
		ago; IEC still a regular activity	and is being timed during	international celebrati	on/events or DENR cons	ultation activities (e.g.,
National Greening Pro 21) Planning for	ogram) (1) LGUs	(1) Reconcile local	TWG with BWISER			
adjacent land and water use (55%)	<ul> <li>development priorities are in conflict with PA objectives;</li> <li>(2) Issue on the LGUs expanding development beyond the MUZ and the anticipated development of commercial areas on both sides of the roads once proposed road development is completed (although both</li> </ul>	<ul> <li>development plans with the park management plan;</li> <li>(2) Monitoring of changes in land use including violations;</li> <li>(3) Integration of PA plan with other plans- Isabela Integrated Coastal Area Development Plan for 5 municipalities; ICRM plan, CDP, CLUP, DRRM, Local Climate Change Action Plan (LCCAP) of LGUs</li> </ul>	assistance			
	sides are considered SPZ).	(4) Update and complete data on coastal				

Criteria/Score	Weaknesses/ Issues/Gaps	Suggested Adaptive Mgt. Actions/ Next Steps	In-Charge	Time Frame	Requirements	Milestones
	(3) Technical persons	resource assessment				
	of DENR not	to complete the ICRM				
	enough and not	Plan (coral reefs, fish)				
	adequately trained	of LGUs and input into				
	to provide proper	the PA plan updating;				
	advice and TA	this needs technical				
		assistance				
			ement says right of way is	30m but the LGUs set	this to 50 meters on both	sides. No similar problems in
	GUs are always involved in					
<i>i</i>		otected Landscape, Palanan s	still has problem on fragme	ntation.	1	
22) State and	Need to have close	Strengthen contact and				
commercial	coordination/collaborati	cooperation with state and				
neighbors (57%)	on with mining and pier	commercial neighbors				
	operation	ante allowed within the DA. Th			the DAMD and improve to the	incide the DA Herrorer re-
agreement is made co	overing outside portion of the	nents allowed within the PA. The PA. and irrigators outside the PA.	lere is prevailing agreement		T the PAMB and Imgators	Inside the PA. However, no
23) Indigenous	(1) Insufficient	(1) Strengthen/ Train IPs				
people (74%)	understanding of	in order to effectively				
	IPs on PA	participate in PAMB &				
	management;	other PA activities;				
	(2) NCIP have	(2) Strengthen				
	separate program	collaboration and				
	and financial plan	coordination,				
	for the IPs which	harmonize policies,				
	are not	etc with NCIP and IP				
	coordinated with	leadership				
	PA;	-				
	(3) IP PAMB					
	members have					
	limited					
	transportation					
	budget to attend					
	meetings;					
	(4) Need to have IP					
	members in the					
	anti- illegal logging					
	task force;					

Criteria/Score	Weaknesses/ Issues/Gaps	Suggested Adaptive Mgt. Actions/ Next Steps	In-Charge	Time Frame	Requirements	Milestones
	(5) The PAMB has 11 IP members, but only 2 are vocal/ participating in deliberations; secret voting on issues like logging sometimes done to enable them give their opinion.					
Note: The three CAD		Maconacon, and San Mariano	; there is a proposed CAD	T for Divilacan		
<ul> <li>24) Local communities (70%)</li> <li>Note: Membership in</li> <li>25) Economic benefit (63%)</li> </ul>	Economic benefits still limited, need to have proper safeguards so that economic benefits would not encourage more encroachment and illegal entry into	<ol> <li>Provide budgetary and institutional support for IPs (transportation, etc);</li> <li>Generate revenues to provide budgetary support for projects for communities</li> <li>nagement participation, but co</li> <li>Regulate entry of people in the PA, give more emphasis to tenured migrants in terms of economic benefits</li> </ol>	mmunity representatives (I	Ps, barangay captain	s, POs, etc.) have limited	funds for their participation.
26) Monitoring and evaluation (70%)	<ul> <li>the PA</li> <li>(1) Regular monitoring done only for crocodile sanctuary; Philippine Eagle;</li> <li>(2) Extent (%) of open access areas and occupancy not known;</li> </ul>	<ol> <li>Continue regular monitoring of biodiversity (BMS), but increase sampling sites, tools and equipment for BMS;</li> <li>Monitor changes in land uses including violations;</li> <li>Strengthen LGUs</li> </ol>				

Criteria/Score	Weaknesses/ Issues/Gaps	Suggested Adaptive Mgt. Actions/ Next Steps	In-Charge	Time Frame	Requirements	Milestones
	<ul> <li>Quarterly BMS being conducted by DENR and POs; LGU need to be included;</li> </ul>	roles in M and E and data base establishment; (4) Input the results of the biodiversity assessment, including species distribution modelling results into the PA plan updating; (5) Conduct training on Spatial Monitoring and Reporting tool (SMART) software c/o FFI				
Note: On-going biodiv	versity survey by Mabuwaya	a and a comprehensive biodive	rsity assessment to be cor	nducted by B+WISER	L I	
27) Visitor facilities (57%)	<ol> <li>Not many visitors except during fiestas (peak). The toilets are inadequate, access is double edged (could reduce or enhance threats) and hence, should be carefully planned;</li> <li>On-going Isabela integrated devt plan has ecotourism targets that need to be coordinated or reconciled with PA plan/needs</li> </ol>	<ol> <li>Need to study needed facilities;</li> <li>Regulate the number of tourists to be within the PA's carrying capacity;</li> <li>Study carrying capacity for allowable ecotourism activities and ecotourism plan</li> </ol>				
Notes: LGUs are oper	rating dorm-type accommo	dation and communities involve	ed in homestay Palanan L0	GU has tour package a	and trained local tour guid	es

Criteria/Score	Weaknesses/ Issues/Gaps	Suggested Adaptive Mgt. Actions/ Next Steps	In-Charge	Time Frame	Requirements	Milestones
28) Commercial tourism operators (40%)	No commercial tourism operation					
29) Fees (61%)	Very limited tourist visiting the area; only researchers & trekkers; Fees come from visitors permit, entrance fee, boat and studies. Boat docking fee; entrance fee – 100% contribute There is an updated user's fee	Seek technical assistance in identifying other sources of fee collection				
Note: IPAF is establish	ned already but collection i	s limited				
30) Condition of values (75%)	<ol> <li>NSMNP is being considered for RAMSAR;</li> <li>The condition of PA values: economic, socio- cultural, ecological, biodiversity, ecosystem services, etc. need to be properly monitored (baseline needed)</li> </ol>	<ol> <li>Establish more MPAs, strengthen existing MPAs;</li> <li>Establish the baseline for PA values (Biodiversity, economic, cultural, water flow, etc)</li> </ol>				
		es (e.g., killing decreased) base	d on the research of MFI	& WWF; crocodile sa	nctuaries established	
31) Additional Info	18 PACBARMA issued	(1) Update CRMF of				
on SAPA, other	but not all have	POs;				
agreements for commercial use	community resource management plan yet	(2) See status of compliance with				

Criteria/Score	Weaknesses/ Issues/Gaps	Suggested Adaptive Mgt. Actions/ Next Steps	In-Charge	Time Frame	Requirements	Milestones
	or an updated CRMF	<ul> <li>agreement;</li> <li>(3) Provide clear arrangement and partnership/ development ventures to manage the PA;</li> <li>(4) Improve the welfare of the Pos</li> </ul>				
		) applied for SAPA but SAPA ir -going application process for (		ded.		

Criteria/ Score	Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	In-charge	Time Frame	Resources needed including partnership	Milestones
Status a (67%) p g c tt	The protected area is in the process of being gazetted/ covenanted but the process is still incomplete.	Still an initial component of NIPAS	<ul> <li>(1) Preliminary steps leading towards the approval of PP/RA is not completed;</li> <li>(2) Steps 1-6 may have to be revisited;</li> <li>(3) Absence of updated PASA;</li> <li>(4) Public hearing to be done</li> </ul>	PAMB already approved the technical boundaries but needs to undergo approval by the concerned LGUs.	<ol> <li>Complete steps leading to PP and RA;</li> <li>Draft PP/RA bill and subject to approval;</li> <li>PAMB request the formation of the Regional TWG leading towards the establishment of NLNP under NIPAS</li> </ol>	PAMB and PASu; Regional Office to provide TA for steps 1 to 6	2015	Public hearing; Budget	Approved PP; Filed and approved PA bill
		Which technical boundary or description to follow?		A draft administrative proceeding by PAMB to declare NLNP as protected landscape/ seascape is being prepared by PENRO. There is already a format and steps being observed.	Reintroduce/ refinement as draft RA bill to the Congress				
2) PA regulations (39%)	Some regulations for controlling land use and activities in the protected area exist but these are major weaknesses.			<ol> <li>Regulations are part of management prescriptions under the new management plan;</li> <li>The tourism development and business plan for NLNP approved</li> </ol>	<ol> <li>Conduct IEC on the management plan including regulations;</li> <li>LGUs to pass pertinent support ordinances</li> </ol>	РАМВ	2014	IEC materials and budget for IEC	

## 2. NLNP DRAFT ACTION PLAN FOR IMPROVING MANAGEMENT EFFECTIVENESS

Criteria/ Score	Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	In-charge	Time Frame	Resources needed including partnership	Milestones
				by the PAMB contains regulations					
		Lack of unified LGU support ordinance			LGUs to come up with unified rules and regulations on fisheries and lake management	LGUs	2015	Budget	Unified ordinance
		<ul> <li>(1) No institutionaliz ed and centralized docu- mentation processes</li> <li>(2) Weak docu- mentation database</li> </ul>		The secretariat is currently strengthening the database including regulations	Establish web-based information system	PASu and PAMB secre-tariat	2015	Seek support from local academic institutions and DENR in website development	Established PA website and improved database mgt
3) Law Enforceme nt (39%)	The staff have acceptable capacity/ resources to enforce protected area legislation and regulations but some deficiencies remain	<ul> <li>(1) There are only 2 patrol boats and equipment and lack of personnel; PASu has no staff;</li> <li>(2) Lack of forest guards/ patrollers and wildlife law enforcers;</li> <li>(3) There is a need for more training of DENR and</li> </ul>	Bantay Dagat volunteer given banca by LGU; 12 receives honorarium of PhP120/day from LGU, uniform, ID	There are Bantay Lawa personnel protecting the PA in some municipalities.	<ul> <li>(1) Sustain conduct of IEC on ordinances, illegal acts, fines and penalties;</li> <li>(2) Tap the BPAT as Bantay Lawa, WEO and deputized forest guards in the different municipalities;</li> <li>(3) Integrate with AIP and implement the ELE plan of</li> </ul>	LGUs, PASu and PAMB	2014- 2015	Budget, equipment and training; leveraging from provincial government, LGUs, private sector, PNP	IEC and training conducted; deputation conducted; ELE plan in the AIP; implementatio n of ELE plan

Criteria/ Score	Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	In-charge	Time Frame	Resources needed including partnership	Milestones
		volunteers (4) Need for DENR-led forest protection and enforcement			LGUs (PA level)				
4) PA Objectives (58%)	The PA has agreed objectives, but is only partially managed according to these objectives	M&E component lacking will serve as basis for monitoring of achievement of objectives	<ol> <li>Lack of M&amp;E</li> <li>WFP has to be strengthened to meet objectives;</li> <li>PA mgt plans have to be harmonized with LGU plans, e.g., CLUP, FLUP, fisheries mgt</li> </ol>	The internal manual of operations has been approved by the PAMB	<ol> <li>Review/ updating of the manual of operation;</li> <li>Strengthen M&amp;E</li> <li>Harmonize PA plan with CLUP and other LGU plans including the M&amp;E</li> <li>Conduct IEC on the new PA management plan to LGUs and communities</li> </ol>	PAMB, PASu, LGUs & Academe	2014- 2015	Budget; TA; Support from academic institutions	Updated manual of operations; M&E harmonized PA plans with LGU plans
5. PA design (29%)	Inadequacies in PA design mean that achievement of major objectives is difficult but some mitigating actions are being taken	<ol> <li>Need for further review of the mgt plan at the level of DENR region and national (BMB);</li> <li>PAMB approval of the geothermal exploration</li> </ol>		<ol> <li>There is already approved management plan at the level of PAMB;</li> <li>B+WISER biodiversity assessment/othe r studies (e.g., BMB) could further input in the finalization of the plan and</li> </ol>	<ul> <li>(1) Final approval of the management plan by DENR national;</li> <li>(2) Redefine the zoning based on sound assessments</li> </ul>	PASu and DENR Region to follow up; B+WISER to do assess- ment	2014- 2015	Budget	Approved mgt. plan

Crite Sco	eria/ re	Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	In-charge	Time Frame	Resources needed including partnership	Milestones
			necessitates redefining of the SPZ		implementa-tion					
6.	PA boundary demarcati on (19%)	The boundary of the protected area is not known by the management authority or local residents and communities				<ol> <li>Conduct delineation of the 21,655 ha plus portion of wetlands, highlands &amp; Butas River minus the Poblacion of Pola ;</li> <li>The four LGUs to approve the new harmonized boundary;</li> <li>Demarcate the harmonized boundary upon approval of the technical description;</li> <li>IEC on harmonized boundary</li> </ol>	DENR, LGUs, PAMB, PASu	2014-2015	Budget; LGU support; PGOM support; Congressiona I staff support	Delineation conducted; demarcation conducted; IEC on harmonized boundary conducted
7.	Manage- ment plan (14%)	There is no management plan for the PA (August 2013)	Management plan needs to undergo approval or review process at DENR		PAMB approved management plan	Submission of the plan for DENR approval (See pertinent notes above)	DENR	2014	Budget	Approved mgt plan
8.	Regular Work Plan (Annual WFP) (39%)	A regular work plan exists but few of the activities are implemented	The WFP (2014- 2016) is DENR- led and budgeted	There is increasing role of PAMB from regional up to the barangay level.	PAMB provides inputs and approval	Strengthen PAMB's involvement in the preparation & implementation of the regular W&FP.	DENR LGU PAMB		Budget	Annual W&FP preparation process as part of the approved

Criteria/ Score	Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	In-charge	Time Frame	Resources needed including partnership	Milestones
					Especially when PAMB is fully established under NIPAS, already generating IPAF & PA plan harmonized with LGU plans.				PAMB manual of operations
		There is no W&FP of Naujan Lake Natural Park, only W&FP of DENR		The governor has already identified many activities for ecotourism. It is nice to identify this together with DENR					
9. Resource Inventory (33%)	Information on the critical habitats, species, ecological processes and cultural values of the protected area is not sufficient to support planning and decision making			<ol> <li>The PASu provided information and obtained CLUP from all covered municipalities;</li> <li>Biodiversity assessment will soon be conducted</li> </ol>	Complete biodiversity assessment and continue BMS (upgrade to BMS2) to support PAMB planning and decision making	PAMB, PASu, B+WISER TA on biodiversity assess-ment	2014- 2015	Budget	BMS2, biodiversity assessment results
10. Protection systems (29%)	<ol> <li>Protection systems are moderately effective in controlling access and resource use;</li> <li>The number of violations has been</li> </ol>	<ol> <li>There is lack of enforce- ment in the NLNP due to lack of personnel. The PNP is also involved.</li> <li>Information is difficult to</li> </ol>	Lack of updated SRPAO (on-going activity)	<ol> <li>Recently, the PASu removed the fence (baklad) found in the lake. At least 70% of cases have been filed in court in terms of number of apprehensions;</li> </ol>	Complete SRPAO updating this year as basis for decision- making on tenure and occupancy management				
	documented in the PASu. There are	obtain, we rely on other people.		(2) There have been cases on illegal fishing (electric)					

Criteria/ Score	Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	In-charge	Time Frame	Resources needed including partnership	Milestones
	entry points in the lake and roads that are already established for each barangay	<ul> <li>(3) The local people are already aware because they also act as enforcers</li> <li>(4) Difficult to control in-migration</li> </ul>		filed. The subpoena has not been served and no update from the court. The persons are at large.					
	enforcement above (								
<b>11.</b> Research (49%)	There is a small amount of survey and research work but it is not directed towards the needs of protected area management	According to DAP, there are researches that have been done but not disseminated. These are presented during PAMB meeting, but no research need identified.		There are ongoing ERDS researches, e.g., Effect of climate change on migratory birds	<ol> <li>Identify the research needs and disseminate the results to PAMB;</li> <li>Local academic institutions to participate in the generation of researches</li> </ol>	PAMB academe DENR	2014	Budget B+WISER TA	Research topics identified and conducted
12. Resource managem ent (33%) to (67%)	Very few of the requirements for active management of critical habitats, species, ecological processes and cultural values are being implemented	<ul> <li>Weak         <ul> <li>information             on CC</li> <li>impacts on</li> <li>biodiversity             and lake             ecosystem,             land             watershed             characterizati             on, social             mgt, and             behavioural             change,             alternative</li> </ul> </li> </ul>		See notes on Item #11	Conduct capacity building among PAMB members and LGUs on lake and park management	PAMB and DENR	2015	Academic institutions; LLDA to provide training assistance	Capability building activities conducted

Criteria/ Score	Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	In-charge	Time Frame	Resources needed including partnership	Milestones
<b>13.</b> Staff numbers (32%)	Staff numbers are inadequate for critical management activities	<ul> <li>livelihood studies that would input into resource mgt .</li> <li>There is very limited perspective, information on current issues and problems in NLNP. The SB sits on the PAMB, however information is not being disseminated</li> <li>There is no item for PASu, it is only a designation</li> <li>PASU has no staff (PAWZC has only two forest rangers for the seven municipality under</li> </ul>		(1) There are new staffs resulting from the rationalization process. It is already approved in the RAT plan but not yet implemented	(1) Facilitate the establishment of the PA under NIPAS; (2) Implementation of the rationalization plan	DENR, PASu and PAMB	2015	Budget and additional personnel	Increased budget and additional personnel
		CENRO Socorro and includes lake protection in their function)							

Criteria/ Score	Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	In-charge	Time Frame	Resources needed including partnership	Milestones
14. Staff training (36%)	Staff training and skills are low relative to the needs of the PA	Lack of training in paralegal & law enforcement. Identification of species is needed in biodiversity assessment	There is an established MENRO in Socorro, but not mandatory for a 3rd class status to give way to environmental functions of the LGU in assisting the CENRO	TNA is conducted already	<ol> <li>Para-legal training and ELE training;</li> <li>Synchronization &amp; main- streaming of environmental functions of the LGU with the CENRO;</li> <li>Conduct organization development for the PAMB;</li> <li>Implement training based on the results of TNA</li> </ol>	DENR, PAMB and LGU B+WISER to provide TA in the conduct of the OD assess-ment	2014	Budget; training modules; and local academic institutions to provide training support	Training conducted
<b>15.</b> Current budget (25%)	<ul> <li>(1) The available budget is inadequate for basic mgt needs and presents a serious constraint to the capacity to manage;</li> <li>(2) There is budget allocation for the DENR WFP. However, this is not enough for patrolling and</li> </ul>	Limited budget	<ol> <li>LGUs could provide support through the implementa- tion of harmonized plans;</li> <li>There is already an Ecotourism Dev't &amp; Business Plan (MBCFI);</li> <li>REECS prepared the Business Plan and Sustainable</li> </ol>	The National Wetlands Action Plan & Special Projects are being tapped in support to lack of budget	<ol> <li>Explore other sources of budget, e.g., sustainable financing, RAMSAR, EAAF Network</li> <li>PAMB to review, approve and implement the Eco-tourism Development and Business Plan (MBCFI);</li> <li>Implement REECS Business Plan and Sustainable Financing</li> </ol>	DENR, PAMB and PASu	2014	B+WISER TA on Sustainable Financing, exploration of other funding sources (e.g., PPP, RAMSAR)	Sustainable Financing project in place; Generation of other external resource funds and projects

Criteria/ Score	Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	In-charge	Time Frame	Resources needed including partnership	Milestones
	monitoring activities, also for the NLNP		Financing study		studies and recommenda- tions				
16. Security of budget (20%)	There is very little budget which constraint PA to function adequately without outside funding.			<ul> <li>In the provincial level, there is budget related to fisheries since there is an institution for fisheries &amp; coastal management division;</li> </ul>	See notes above on no. 15	PAMB PASU DENR LGUs			
				(2) There is also an organization & strengthening of FARMC including the capacitation of fisher folks					
17. Budget Mgt (26%)	Budget management is very poor & significantly undermines effectiveness		REECS prepared the Business Plan and Sustainable Financing study		<ol> <li>Implement the Business Plan developed by REECS;</li> <li>Conduct budget management &amp; business plan mgt training</li> </ol>	DENR and PAMB	2014- 2015	B+WISER TA on the implementa- tion of the sustainable financing plan, local academic institutions on budget mgt training	Sustainable financing plan, business planning implemented & training conducted
<b>18.</b> Equipment (33%)	<ol> <li>There are little or no equipment and facilities for mgt needs;</li> </ol>			<ol> <li>The NLNP has 2 bancas w/c could be used as patrol boats. There are camera, tele- scopes (4),</li> </ol>	<ol> <li>Strengthen equipment for land;</li> <li>Provide comm. &amp; computer to PAMB;</li> </ol>	PAMB, PASu	2014	Budget; leveraging	Leveraging conducted; PAMB office established; equipment provided

Criteria/ Score	Current status (2) There are 2 patrol boats and limited equipments	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are being done now and by whom? spotting scope, life jackets (25) and 2-way radio. But, Communica- tion is lacking.	Suggested Adaptive Mgt. Actions/ Next Steps (3) Send official request to DENR for the provision of PAMB office & facilities; (4) Conduct leveraging for equipment and facilities, e.g., visitor's center, PAMB office, LGU need for equipment	In-charge	Time Frame	Resources needed including partnership	Milestones
<b>19.</b> Mainte- nance of equipment (46%)	There is some ad hoc maintenance of equipment & facilities	See notes above on equipment			Ensure the equipment are properly maintained	PAMB, PASu	2014	Budget	Maintenance conducted; maintenance budget included in W&FP
20. Education and awarenes s (42%)	There is a limited and ad hoc education and awareness programme.	The W&FP contains limited IEC activities		The DENR participates during the general assembly meeting of the different barangays on educational awareness	<ol> <li>LGUs, academe &amp; CSOs to assist in the conduct of IEC;</li> <li>Preparation of IEC materials including mgt plans, harmonized boundaries, law enforce-ment &amp; sustainable practices, e.g., biodiversity conservation)</li> </ol>	PASu, PAMB and DENR	2014	<ul> <li>(1) B+WISE R, Academe NGOs, (MBCFI), private sector (Malam- paya);</li> <li>(2) BMB to assist on IEC materials preps and impleme ntation</li> </ul>	IEC materials prepared; IEC conducted

Criteria/ Score	Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	In-charge	Time Frame	Resources needed including partnership	Milestones
21. Planning for adjacent land and water use (43%)	Adjacent land and water use planning does not take into account the long term needs of the PA. But, activities are not detrimental to the area.	PA mgt plan not yet harmonized with LGU plans	There is already a mgtplan		<ol> <li>Harmonized PA mgt plan with LGU plans;</li> <li>Conduct IEC on PA mgt plan among LGUs and communities</li> </ol>	PAMB, DENR	2014	B+WISER and academe to provide TA and IEC support from private sector	
22. State & commerci al neighbors (25%)	There is contact between managers and neighbouring official or corporate land and water users but little or no cooperation		There is effective coordination/partn ership with LGUs No effective and direct contact with communities		Strengthen linkage with pertinent private sector groups (e.g., Malampaya)	PAMB, DENR	Starting 2014	MOA/MOU with Malampaya	MOA/MOU with Malampaya
23. Indigenou s people (0%)	<ol> <li>IPs have no input into decisions relating to the mgt of the PA;</li> <li>IPs have indigenous/en v't friendly practices w/c contribute to the integrity of the PA;</li> <li>The livelihood is farming. The Tadjawan are not nomadic</li> </ol>		The IPs have been identified in Pola & Naujan (Tadyawan tribe)	The committee will still look/review their participation & representation during the last PAMB	Conduct IEC; Extend membership in PAMB to include IP representatives	PAMB, PASu	2014	PAMB meeting , NCIP collaboration	Collaborate with NCIP, include IP representa- tives in the PAMB

Criteria/ Score	Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	In-charge	Time Frame	Resources needed including partnership	Milestones
	but have settled in the area								
24. Local communi- ties (49%)	Local communities have some input into discussions relating to mgt but no direct role in mgt				<ul> <li>(1) Institutionalization of public participation in planning &amp; implementa-tion activities;</li> <li>(2) Strengthen linkage with local NGOs and CSOs, e.g., SCPW</li> </ul>	PAMB, PASu	2014	Budget	Public consultation and discussions conducted; Linkage established
25. Economic benefit (55%)	Potential economic benefits are recognised and plans to realize these are being developed.	There are limited economic benefits to local communities			<ul> <li>(1) Develop ecotourism activities w/ the involve-ment of local communities;</li> <li>(2) Implement sustainable or alternative livelihood activities;</li> <li>(3) Improve fisheries protection &amp; production</li> </ul>	DENR PAMB	2014	BFAR Private sector PGOM RAMSAR	Economic benefit realized
<b>26.</b> Monitoring and evaluation (32%)	There is some ad hoc M&E, but no overall strategy and/or no regular collection of results				<ul> <li>(1) Conduct training on technologies in M&amp;E</li> <li>(2) Establish an operational M&amp;E system (BMS2, Smart)</li> </ul>	DENR PAMB	2015	Budget; TA provided by B+WISER; NGO(SCPW); Local academic institutions	Operational M&E system

Criteria/ Score	Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	In-charge	Time Frame	Resources needed including partnership	Milestones
27. Visitor facilities (7%)	<ul> <li>(1) There are no visitor facilities and services despite an identified need;</li> <li>(2) There is an existing ecotourism activity in Pungao: hotsprings, cottage; The case of Naujan &amp; Pungao: hot springs &amp; day tours which are frequently visited</li> </ul>	The PA has two cottages w/ toilets in Tagbakin Falls, Pungao Hot Springs & MInglit Forest. There is a view deck w/o comfort room in Malabo, Victoria.			<ol> <li>Promote Naujan lake ecotourism as part of Mindoro Island tourism destination, e.g., PA &amp; LGU website &amp; provincial tourism council; Linkage w/ travel &amp; tour inc hotel operators</li> <li>Establish a central visitor information center in CENRO Pasi;</li> <li>Conduct provincial ecotourism summit through PENRO ;</li> <li>Develop internship arrangement w/ MinSCAT &amp;DWCC (BS Ecotourism &amp; BS Tourism, respectively)</li> <li>Implement ecotourism component of Ecotourism Devt &amp; Business Plan</li> </ol>	PAMB, LGUs, DENR	Starting 2014	DOT; Oriental Mindoro Tourism Officers and Coordinators Association (OMTOCA), academic institutions, private sector	<ol> <li>Promotio n of Naujan Lake as pre-miere tourism destina- tion;</li> <li>Provin- cial eco- tourism summit con- ducted;</li> <li>Visitor facilities construct ed;</li> <li>PAMB regula- tion &amp; bgry ordinan- ces on SWM &amp; visitor mgt</li> </ol>

Criteria/ Score	Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	In-charge	Time Frame	Resources needed including partnership	Milestones
					<ul> <li>(MBCFI);</li> <li>(6) Train communities on ecotourism services (e.g., food handling, tour guiding);</li> <li>(7) A resolution is needed from PAMB allowing the construction of facilities e.g., CR;</li> <li>(8) PAMB to issue regulation on visitor mgt including SWM &amp; sanitation in ecotourism sites</li> </ul>				
28. Commerci al tourism operators (0%)	There is little or no contact between managers & tourism operators using the PA				Link up with other ecotourism destinations in the region (See notes above on no. 27)	PAMB DENR and LGUs	2014	See notes above on #27	See notes above on #27
<b>29.</b> Fees (10%)	Although fees are theoretically applied, they are not collected				<ul> <li>(1) Implemen-tation of ecotourism component of the Eco-tourism Development &amp; Business Plan (MBCFI);</li> <li>(2) Sustainable financing study prepared by REECS</li> </ul>	PAMB, PASu, DENR and LGUs	2014	B+WISER to provide TA; Private sector; Academic institutions; NGOs	Fees established and collected; IPAF established

Criteria/ Score	Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	In-charge	Time Frame	Resources needed including partnership	Milestones
<b>30.</b> Condition of values (43%)	Some biodiversity, ecological & cultural values are being partially degraded. But, the most important values have not been significantly impacted.				<ol> <li>Establish monitoring parameters on the condition of values &amp; make this part of the M&amp;E system;</li> <li>Make the M&amp;E results part of the adaptive management of the PA</li> </ol>	PAMB PASu and LGUs	2015	B+WISER, Academe & Conservation NGOs to provide TA	Parameters established; Operational M&E, Adaptive mgt in place

	Criteria/ Score	Notes on Current status	Weaknesses/ Issues/ Gaps	Facilitating/ Hindering Factors	What is/ are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
1.	Legal Status (67%)	The PA is in the process of being gazetted / covenanted but the process is still incomplete	<ul> <li>(1) No RA yet</li> <li>(2) Initial Component, PP 573, 1969</li> </ul>	<ol> <li>Need to address need for harmoni- zation bet LGC, NIPAS Act, IPRA &amp; plans (ADSDPP, ADMP, PAMP &amp; LGU Plans);</li> <li>There are JMCs between DENR &amp; NCIP that can guide harmonizati on (JAO 2012-01 (DENR, DAR, LRA, NCIP)</li> </ol>	<ul> <li>(1) On-going dialogue</li> <li>(2) There is now a draft PP submit- ted to PAWB</li> </ul>	<ol> <li>Push for PA establishment under NIPAS (PP up to RA);</li> <li>Calendar in next quarterly meeting (September) the review of the status of the draft PPA including the need to update support documenta- tions (e.g., PASA, SRAPAO, etc);</li> <li>Determine additional consultations needed to finalize the PP;</li> <li>Finalize the PP and have it approved</li> </ol>	<ol> <li>Follow-up w/PAWB the PP (PASU, PAWCZM, RED);</li> <li>PAWB/ DENR to expedite the review of the PP, its finali- zation &amp; approval by the President</li> </ol>	2015	Meeting expenses	KWFR PP submitted to the President
2.	PA Regulation (20%)	There are no regulations for controlling land use & activities in the PA	<ol> <li>Lack of fund;</li> <li>NO regulation even on forest/biodiver sity protection</li> </ol>	(1) Mun of Tanay has ordinance on charcoal making that help	PAMB has identified several resolutions (including for the province),	<ol> <li>PAMB to finalize &amp; approve the resolutions&amp; regulations;</li> <li>Support Brgy.</li> </ol>	<ol> <li>PAMB;</li> <li>Brgy Captains</li> <li>Tribal rep to PAMB to coordinate w/</li> </ol>	(1) PAMB by Dec 2014 for some outputs and the rest of	Funding for meeting & workshop	

## 3. KWFR DRAFT ACTION PLAN FOR IMPROVING MANAGEMENT EFFECTIVENESS

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/ Gaps	Facilitating/ Hindering Factors	What is/ are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
			achieve forest conserva- tion w/in the PA; (2) B+WISER started to provide TA on PAMB regulation and formula-tion	regulations and barangay support ordinances	Ordinances & Tribal Ordinances to be prepared & approved; (3) Strict imple- mentation of ENR laws & regulations (4) Regulations to control land- use in the PA	Tribal Chieftains for the formula- tion & approval of support ordinance (4) PASU/ DENR to calendar the agenda for next quarterly meeting on presenta-tion & approval of METT & ELE action plans inc. the identified regulations & resolu-tions; (5) Subsequent writeshops	2015; (2) Tribal Chieftain& brgy captains after the PAMB policies are already approved		
3. Law enforce- ment (36%)	There are major deficiencies in staff capacity/ resources to enforce PA legislation & regulations	<ol> <li>Tanay doesn't have brgy level law enforce-ment team but has municipal level enforcers;</li> <li>Brgy tanod given responsibi-lity for envi law enforce-ment and</li> </ol>	<ol> <li>Problem on access to areas where violations occur (by foot or horse). Thus, difficult to conduct ELE.</li> <li>In the past, DENR</li> </ol>	<ol> <li>BLET is member of the commu- nity monito- ring group of Regional Eagle Watch Team formed by the DENR in Gen. Nakar</li> <li>BLETs</li> </ol>	<ol> <li>Conduct IEC;</li> <li>Train and deputized ELE enfor-cers (identify how many);</li> <li>Formally adopt, provide budget (counterpart among DENR, LGUs, NCIP, others) &amp; implement the</li> </ol>	<ol> <li>PASU/DENR</li> <li>PAMB (NCIP, LGUs, barangays, etc.)</li> <li>B+WISER for TA (training, workshops)</li> <li>Explore how the province (e.g., Provincial Task Force Compliance)</li> </ol>	<ol> <li>Approval and finalize- tion of ELE plan in next quarterly meeting</li> <li>Training/d eputa-tion on 2014- 2015</li> </ol>	Logistics; training expense; others in the ELE plan	Approved ELE plan; Trained and deputized guards; Regular patrolling and ELE work

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/ Gaps	Facilitating/ Hindering Factors	What is/ are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	
Law Enforce- ment (36%)		<ul> <li>awareness though they do not have formal ELE training;</li> <li>(3) LGUs do not have enough manpower and equipment to patrol/ enforce (does random patrolling);</li> <li>(4) DENROs trained on basic environmental laws and basic rules on enforce-ment (they now apprehend and appear in court)</li> </ul>	<ul> <li>conducted training for DENRO deputation but wasn't sustained</li> <li>(3) There is now a draft ELE action plan, METT Threats Assessment &amp; Digitized violations map</li> <li>(4) Active &amp; consistent apprehension by DENR CENRO (PG ENRO (PG ENRO on charcoalmaking</li> <li>(5) Philippine Army personnel part of the DENRO operating within Kaliwa</li> <li>(6) MENRO of Tanay already</li> </ul>	<ul> <li>given incentives by Gen.Nakar (monetary incentives/h onorarium given by DENR CENRO Real &amp; Provincial Govt)</li> <li>(3) Special permit given by CENRO Real to regulate (source should be titled land &amp; verified by CENRO, premium species not allowed, situational e.g., trees cleared for house construc- tion can be used for</li> </ul>	ELE Action Plan, including soft approaches such as sustainable alternative livelihood; (4) Leverage additional support for ELE (honorarium, insurance, uniform, equipment, logistics) (5) Strengthen linkages w/ other enforcement agencies/grou ps (at diff levels)	can provide support for socioecon & envi			

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/ Gaps	Facilitating/ Hindering Factors	What is/ are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
			deputized as DENRO	housing material & charcoal), while usual trees are used for agriculture					
	t Initiatives: (1) Tana tapped for Kaliwa si	ay LGU has a text hotl nce last year	INE WITH MENRO W	nich helps in intellig	ence gathering (2) Mu	iltisectoral Environme	ental Law Enforcem	ient Team (ML	= I ) Of
4. PA objectives (38%)	No firm objectives have been agreed for the PA	There is already a GMP but needs updating	<ol> <li>KWFR not yet fully estab-lished under NIPAS but there is already a draft PP;</li> <li>B+WISER is provi-ding TA in the updating of the PA mgt plan</li> <li>Biodiversiy &amp; other studies being conducted with B+WISER assistance in support of plan prep</li> </ol>	<ol> <li>Updating of PA mgt plan (which includes harmonizati on w/LGUs &amp; IPs plans)</li> <li>Biodiversity &amp; other studies being conducted which can input in the prep of an updated PA mgt plan including the PA mgt objectives</li> </ol>	<ol> <li>Continue the preparation of a new/ updated mgt plan w/ firm mgt objectives using inputs from scientific studies &amp; subject this to PAMB approval;</li> <li>Implement the PA mgt plan</li> </ol>	PASU DENR LGUs PAMB NCIP with TA from B+WISER	<ul> <li>(1) 2014-2015 for plan preparatio n &amp; PAMB approval &amp; sub- mission to DENR/ BMB;</li> <li>(2) Imple- ment activities that can already be part of the annual work &amp; financial plan</li> <li>(3) Leverage funding for plan/ AW&amp;P implement ation</li> </ul>	Workshop and meeting expenses; TA from B+WISER	Final PA objectives as part of the new and updated PA Mgt Plan

	Criteria/ Score	Notes on Current status	Weaknesses/ Issues/ Gaps	Facilitating/ Hindering Factors	What is/ are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
5.	Protected area design (38%)	Inadequacies in PA design mean that achievement of major objectives is difficult but some mitigating actions are being taken	Intrusion in SPZ; Design is based on old PA management plan	Old plan is now being updated with TA from B+WISER	Old plan is now being updated with TA from B+WISER	Updating of design should take into account sacred grounds, i.e., should be included in the SPZ; Continue the updating, finalization of the PA plan, including the zones (and buffer zone)	See notes on new PA plan being updated with scientific studies	Timeframe consistent with PA plan enhancement and approval	Resources needed for PA plan review, finaliza-tion and approval	PAMB approved managemen t plan which includes appropriate PA design
6.	Manage- ment plan (64%)	A mgt plan is being prepared or has been prepared but is not being implemented	<ol> <li>GMP needs updating;</li> <li>Review not conducted after 5 years</li> </ol>	See notes above about new plan & plan implementa-tion	Old plan is being updated with TA from B+WISER	<ol> <li>Formulate updated PA mgt plan with TA from B+WISER.</li> <li>Formulation of prescrip-tion &amp; regulations for the use of diff zones (as part of the PA mgt plan) &amp; harmoniza- tion w/ CLUP/zoning ordinances of the LGU</li> </ol>			See notes above	

	Criteria/ Score	Notes on Current status	Weaknesses/ Issues/ Gaps	Facilitating/ Hindering Factors	What is/ are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
7.	Protected Area boundary demar- cation (47%)	The boundary of the protected area is not known by the management authority or local residents/ neighboring land users	No monument on grounds, PAMB does not know the technical description – should be monumented even in the google maps so that community will not have alibi that they do not know	Draft PP which contains the technical description not yet approved	See notes above re: draft PP	Program PA boundary demarcation to be conducted once there is a final technical description and PP	DENR PASu PAMB			
8.	Regular work plan (Annual WFP) (22%)	A regular work plan exists and many activities are implemented	<ol> <li>AWP being prepared by the PASU/ Regional Office (general activities for all PAs in the region);</li> <li>PAMP not being translated as it should into the PA's AWP;</li> <li>Limited activities being implemented due to funding constraints and time limitations (no full-time PASU and</li> </ol>	PASU is not full time and has no staff; PA has no specific/own budget/no IPAF	Status quo- DENR is preparing the AWFP	<ol> <li>Strengthen participation and capacity of PAMB in formulating the Work &amp; Financial Plan;</li> <li>Once the new PA Mgt. Plan is approved,, the AWFP should be prepared consistent w/the targets identified</li> <li>LGUs to provide counterpart funding for implementatio n of PA activities by incorporating in their AIP</li> </ol>	PAMB and PASU	Starting 2015		PAMB providing active inputs into the AWF; Ulti-mate goal is for the PA to have its own AWFP consis-tent w/ the PA mgt plan & being able to allocate own funds for its implementati on

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/ Gaps	Facilitating/ Hindering Factors	What is/ are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
		staff); (4) No monitoring of progress of plan implement- tation			activities related to PA mgt in their territories (4) Strict implementa- tion, monitoring & progress reporting of AWFP				
9. Resource inventory (31%)	Info on the critical habitats, species, ecological processes & cultural values of the PA is not sufficient to support planning & decision making	(1) Resource Inventory needs to be updated;	<ul> <li>BWISER is providing TA in the conduct of ecological, socio- economic &amp; climate vulnera- bility assess- ments;</li> </ul>	<ol> <li>B+WISER is in the process for preparing for the conduct of the ecological assess- ment</li> </ol>	<ul> <li>PAMB &amp; PASU/DENR to provide the lead/ support to B+WISER in the conduct of the Biodiversity Assessment</li> </ul>	PAMB; PASU/DENR; B+WISER for TA;	2014-2015	Budget support, manpower support, TA support	Assess- ments conducted; Lawin 2.0 established; PAMB use of info in policy making & mgt
		<ul> <li>(2) PAMB has not developed capacity or establish a group to conduct regular BMS or analyze and use in decision- making BMS data;</li> <li>(3) Sacred</li> </ul>	<ul> <li>(2) Started conduct of BMS in 2013 for second and third quarter</li> <li>(3) DENR Staff (UMRBPL Biologist &amp; DENR- PAWZCM technical staff</li> </ul>	(2) Some dialogues being conducted among NCIP, IPs, LGUs	<ul> <li>(2) BWISER to present results of the study/ incorporate in the PA plan enhancement</li> <li>(3) Train, establish &amp; implement LAWIN 2</li> <li>(4) Capacitation of PAMB in PA mgt using</li> </ul>	PAMB, NCIP, LGUs;	2015	Budget, logistics, TA	Harmoniza- tion of plans

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/ Gaps	Facilitating/ Hindering Factors	What is/ are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
		grounds and other important cultural sites are poorly documented	<ul> <li>conducted the BMS) in all 7 brgys participated in the BMS;</li> <li>(4) BWISER to provide support in the establish- ment of LAWIN (BMS 2.0)</li> <li>(5) IKSP already conducted for Tanay CADT holder and incorporate d in their ADSDPP, however, no subse- quent monitoring done &amp; implementa tion status unknown</li> <li>(6) Erosion of IP tradi-tion values</li> <li>(7) Lack of unity among IPs &amp; negative</li> </ul>		<ul> <li>science-based info</li> <li>(5) Integrate cultural heritage/sacre d grounds and other cultural sites in the preparation of the new mgt plan</li> <li>(6) Harmonization of the different plans (PA mgt plan, ADSDPP, LGUs) based on common vision and objectives</li> <li>(7) Conduct of harmoni- zation dialogues/ meetings</li> </ul>				

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/ Gaps	Facilitating/ Hindering Factors	What is/ are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
10. Protection systems	Protection	No deployed regular Bantay	<ul> <li>influence of NGOs on their unity</li> <li>(8) Issues that divide the IPs,</li> <li>(9) Law on harmonizati on of laws/policie s/plans</li> <li>(1) No know- ledge on</li> </ul>	(1) LGU prepares	(1) Strengthen system	PAMB, PASU, LGU, NCIP	2014n onwards	Budget, leveraging,	ELE plan implemented
(33%)	(patrols, permits etc.) do not exist or are not effective in controlling access/ resource use	Gubat (depends on budget); There is an existing DENR checkpoint but not very effective	privately titled lands occu-pation w/in the KWFR (w/in the proposed Laiban Dam- 20 ha nego-tiation for relocation w/ dam proponent- MWSS) (2) Brgy Cayabu practices chemical- free farming, has put in place ordinance	<ul> <li>prepares</li> <li>tactical/ope</li> <li>ration plan</li> <li>and</li> <li>engages</li> <li>the MLET</li> <li>(army,</li> <li>PNP,</li> <li>DENR,</li> <li>MENRO)</li> <li>(2) Tanay</li> <li>Poblacion</li> <li>brgys have</li> <li>envi armies</li> <li>focused on</li> <li>coastal</li> <li>areas,</li> <li>lakeshore,ri</li> <li>ver</li> <li>cleanup-</li> <li>project in</li> <li>support of</li> <li>the YES</li> <li>(Ynares</li> <li>Ecosystem</li> </ul>	<ul> <li>(ordinance, regulations, ELE) of controlling entry of illegal occupants and use of forest &amp; biological resources found therein</li> <li>(2) Strengthen the capability to address fire</li> <li>(See notes under law enforcement)</li> </ul>			TA	Forest fire protection in place Regulations/ ordinances in place

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/ Gaps	Facilitating/ Hindering Factors	What is/ are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
			for protection	program (3) BLET has environmen tal armies					
11. Research (36%)	There is a small amount of survey and research work but it is not directed towards the needs of PA management	No feedback made on research results Inadequate inventory of wildlife	PAMB has no program for research which are linked to PA management needs	BWISER is providing assistance in the conduct of several studies, has identified several research agenda for the PA	<ol> <li>Identify research needs;</li> <li>PAMB to have prior approval of researches to be conducted;</li> <li>Make it a policy that researchers should inform and get approval of PAMB about research results;</li> <li>PAMB to use the research outputs in policy and decision making;</li> <li>Strengthe-ning of database/ knowledge mgt system</li> </ol>	PASU, PAMB, DENR BWISER for TA	2014- onwards	Meeting expense	Policy requiring PAMB approval of researches Research needs identified

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/ Gaps	Facilitating/ Hindering Factors	What is/ are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
12. Resource managem ent (33%)	Very few of the requirements for active management of critical habitats, species, ecological processes and cultural values are being implemented	PAMB is unclear/ not capacitated on their roles and responsibilities on resource management			Conduct training and capacity building for PAMB members in resource management, as effective PA managers	DENR, B+WISER to provide TA, leverage other assistance from academic institutions, biodiversity NGOs, private sector	2014 onwards	Budget and logistics	PAMB capacitated on resource mgt
13. Staff numbers (40%)	Staff numbers are inadequate for critical management activities	<ol> <li>PASU is concurrently the CENRO. It has no office inside or near the PA;</li> <li>Limited time devoted by PASu &amp; staff for KWFR;</li> <li>CENRO on the Rizal side is constantly changing (need for orientation every 2 yrs)</li> </ol>			Designate a full time PASu and staff	PAMB	2014-onwards	Budget; TA; Leveraging	More DENR presence
14. Staff training (38%)	Staff training and skills are adequate, but could be further improved to fully achieve the objectives of mgt	PA has no full-time PASU and staff	<ol> <li>PA has no fulltime PASU and staff;</li> <li>PAMB members not trained on PA mgt</li> </ol>		<ul> <li>(1) DENR Region to provide more TA to the PAMB, presence in the PA has to be improved</li> <li>(2) Orient the PAMB</li> </ul>	DENR; PAMB; LGUs; B+WISER for training/TA support	2014-onwards	Budget, leveraging and Counter- parting	Training/ capacity building for PAMB; PAMB Operations Manual; Training/ orientation

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/ Gaps	Facilitating/ Hindering Factors	What is/ are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
					members on their responsibi- lities as PA managers (3) Capacitate PAMB to become effective PA managers (4) Prepare PAMB Manual of Operations (5) LGUs to provide more leadership role				for PAMB members
15. Current budget (9%)	There is no budget for management of the PA	<ol> <li>Budget is for PAMB meetings only, AWFP is DENR prepared and doesn't reflect much PA need;</li> <li>Overreliance on the budget of DENR (e.g., Budget for maintenance &amp; propaga- tion of various trees in 2011&amp; 2012 were taken from the</li> </ol>		LGUs to provide more support by incorporating in their AIP budget to implement priority PA management activities	<ol> <li>(1) Establish and implement PES thru training of PAMB members by B+WISER to generate funds;</li> <li>(2) Active role of the PAMB in the preparation of the AWFP; Establish IPAF</li> </ol>	PAMB DENR B+WISER for TA LGUs	2014 onwards	Budget for meetings/ workshops; TA support	IPAF established PES implemen- ted

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/ Gaps	Facilitating/ Hindering Factors	What is/ are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
		budget of Forest Mgt Service under NGP) (3) LGUs provide logistical, infrastruc- ture & other support which contribute to PA mgt							
16. Security of budget (20%)	There is very little secure budget and the protected area could not function adequately without outside funding	There is very limited/no secured budget IPAF has not been established	<ol> <li>Limited funding to conduct activities inside the PA;</li> <li>No budget even for the conduct of meetings</li> <li>No internal budget; no external source; Even members have to rely on their personal funds; no equipment etc.</li> </ol>	<ul> <li>(1) Budget for the meeting is being provided by the private proponent</li> <li>(2) Tanay Brgy LGU provides budget for seedling production</li> <li>(3) Tanay LGU – provides in kind support for patrolling</li> <li>(4) Provincial LGU provides minimal infra support for</li> </ul>	<ol> <li>LGUs to provide counterpart funding for the implementa- tion of activities for the protection and enhance- ment of the PA through their AIP (reforesta-tion, nursery establish- ment, etc.)</li> <li>Leveraging support from private/NGOs like Yuchengco, RCBC</li> </ol>	<ol> <li>BLGU, MLGU, PLGU to allocate budget from the AIP for the protection of PA;</li> <li>PAMB to explore leveraging opportunities with private companies</li> </ol>	2015	Funding, Leveraging	Secured funding

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/ Gaps	Facilitating/ Hindering Factors	What is/ are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
				mainte- nance of road					
17. Managem ent of budget (22%)	Budget management is very poor and significantly undermines effectiveness	Budget management is adequate but budget per se is limited	No budget to be managed at all		<ol> <li>PAMB be trained in proposal dev't, financial mgt,book- keeping;</li> <li>Fund sourcing from private partners, companies to implement key activities for the protection &amp; mgt of the PA;</li> <li>Once budget is available, PAMB to practice financial reporting for transparency purposes</li> </ol>	B+WISER to provide training for proposal development for livelihood and socio-economic development project	2015	Funding for the training, logistics	PAMB trained in proposal development

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/ Gaps	Facilitating/ Hindering Factors	What is/ are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
18. Equip- ment (13%)	There are little or no equipment and facilities for management needs	No PAMB office, lacks equipment for enforcement and PA protection	Needs additional equipment (2 way radio, uniforms, 1/brgy in Tanay,gps, early warning devise Lumutan at least 2 gps, 4x4 vehicle, horse, boat for Lumutan	Nakar side: voluntary – patrolling; no monetary incentives just the promise of prioritization in case of a more regular work in the LGU	Provisions for logistics and incentives Develop proposal to acquire the needed equipment for enforcement and PA protection Leverage additional support from private organizations/ companies	B+WISER to provide assistance in leveraging for equipment and other incentives	2015	Training, proposal, funding	Available and functional equipment
19. Mainte- nance of equip- ment (13%)			Loss of some cellphone units being used by BG	LGU provided cellphone, uniform, flashlight, rain- boots, honorarium (700/person/mo nth), no insurance, foot patrol (area not accessible by vehicle) LGU Nakar now provides 500 pesos honorarium provided before by WB project	Requisition issue voucher for equipment Develop mechanism for proper maintenance of equipment, holder made liable for loss or damage	LGU, DENR, Forest law enforcers or forest guards	Once equipment's are available		Equipment properly maintained
20. Educa-tion & aware- ness (16%)	There is a limited and ad hoc education and awareness	Provincial LGU-no IECs for people inside the PA but adequate IEC for		(1) IEC materials- tarpaulin placed on	<ul><li>(1) Sustain</li><li>IEC activities;</li><li>(2) Establishment of MIS</li></ul>	BLGU, MLGU, PAMB, DENR	On-going	IEC materials, Logistics for	Sustained IEC

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/ Gaps	Facilitating/ Hindering Factors	What is/ are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
	programme	PAMB; Rooted to the problem of lack of staff, no full-time PASu		<ul> <li>strategic areas-e.g., dos and don'ts in the PA</li> <li>(2) Tanay conducts IEC on environmen tal laws, SWM, DRRM</li> <li>(3) Tanay distributes booklet on SWM, and DRRM</li> <li>(4) MENRO Office, Tourism Office conducts barangay Balitaan (SW) and orientation on eco- tourism and proper protection of tourist destination</li> <li>(5) Buyers of seedlings (note: has MOA with PDEA for</li> </ul>	<ul> <li>(3) Farmers need to be trained on soil conservation technologies like terracing, SALT (Sloping Agriculture Land Technology) and use alternative transport system</li> <li>(4) Partner- ships, Private sector and investors</li> <li>(5) Promote sustainable charcoal making (briquetting) in Tanay Rizal through community- based charcoal making</li> </ul>			meetings and orientation	

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/ Gaps	Facilitating/ Hindering Factors	What is/ are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
21. Planning for adjacent land and water use (36%)	Adjacent land and water use planning does not take into account the long term needs of PA, but activities are not detrimental to the area	PA boundaries/ zoning not known to PAMB members	There was an orientation conducted last Year on PES	seedlings purchase) (1) Nakar has on-going negotiation with Centennial Project for potential PES; (2) Training on environ- mental valuation; (3) Sta Ines barangay water system; monthly fee 15 pesos/ household/ month. Mainte- nance is P15; Tanod P10	<ol> <li>Inventory of PA resources to identify important resources for PES dev't;</li> <li>Conducts PES research/studi es as basis for PA planning;</li> <li>Dev't of PES guidelines;</li> <li>Inform PAMB members of PA boundaries to plan for water and land use;</li> <li>Explore PES for Environmental Services</li> </ol>	<ul> <li>(1) B+WISER to provide TA in PES;</li> <li>(2) Partnership with Academic/ Research Institutions</li> </ul>	2015-onwards	Logistics, Research on PES	PA Inventory; PES Studies conducted
22. State and commer- cial neigh- bours (20%)	There is contact between managers and neighbouring official or corporate land and water users but little or no cooperation	No corporation who uses land and water resources in the PA		Cayabu IPs collects fees from non-IP who use water from irrigation (1 balde per sack of harvest to be shared to IP members)					

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23. Indigenous people (47%)	Local communities directly contribute to some relevant decisions relating to mgt but their involvement could be improved	<ul> <li>(1) Issue on PAMB membershipQ uezon side– IP attending PAMB (representa- tive) has no formal appointment</li> <li>(2) Logistical constraint in attending PAMB meetings</li> </ul>	<ol> <li>IPs being engage in planning processes but left out in the implementa tion of the Project (NGP program in Sta. Ines, &amp; other Brgys. in Tanay)</li> <li>DENR lacks proper coordinatio n to IPs in project implementa tion;</li> <li>Intrusions to IP kaingin by DENR-Rizal reforestatio n project planted w/ forest tree species (NP project)</li> </ol>	<ol> <li>NCIP just discovered the issue and plan to hold dialogue between the concerned IP and DENR;</li> <li>Formal complaint letter about the NGP project was submitted to the NCIP Region- legal Division</li> <li>NCIP requested APASu Philip to respond to the issue</li> </ol>	There should be consultations between IPs/ PAMB members on activities/ research/ program/ project to be done inside the PA	NCIP to follow up response of APASu and hold a dialogue to resolve the issue	On-going ASAP for NCIP	Legal assistance	

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/ Gaps	Facilitating/ Hindering Factors	What is/ are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
24. Local communiti es (53%)	Local communities have some input into discussions relating to management but no direct role in management	Communication problems because of their lack of formal education	<ol> <li>Poor coordina- tion of APASu</li> <li>Sto. Nino coop failed to meet the deadline and requirement s for POs to participate the MOA</li> </ol>	Brgy Sto. Nino Multipurpose coop coordinated with DENR to get an NGP contract	<ol> <li>Proper coordination for future and incoming project</li> <li>For projects/ programs to secure clearance from the Barangay and NCIP, PAMB before the project implementa- tion</li> </ol>	PAMB, NCIP, Concerned Brgy.	As need arises		Local communities properly coordinate and participate in project mgt
25. Economic benefit (33%)	Potential economic benefits are recognized and plans to realize these are being developed	Lack of livelihood and economic opportunities inside the PA	Enhance ADSDPP of Tanay CADT		<ol> <li>Tanay DRADDEVI to submit resolution to NCIP for assistance in enhance-ment of their ADSDPP;</li> <li>Incentive packages for communities and LGU's who have sustainable mgt practices in place;</li> <li>Alternative and sustainable livelihood</li> </ol>	<ol> <li>B+WISER to assist in the enhancement of Tanay ADSDPP;</li> <li>NCIP assist and endorse to B+WISER or other agency to support the enhance- ment of ADSDPP</li> </ol>	2015	Resolutiono f tribal leaders, funding support	Increased economic benefits

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/ Gaps	Facilitating/ Hindering Factors	What is/ are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
					source (sawali, buho); (4) Develop and improved ecotourism as alternative livelihood source; (5) Sustain existing alternative livelihood projects identified above (briquetting)				
26. M&E (33%)	There is some ad hoc M&E but no overall strategy and/or no regular collection of results	<ol> <li>There is an M&amp;E committee</li> <li>No regular meeting (quarterly)</li> <li>No training on M &amp; E</li> </ol>	<ol> <li>M &amp; E committee meets only as need arises;</li> <li>PASu under staff to conduct M and E in the PA;</li> <li>No fund to conduct regular meeting</li> </ol>		<ul> <li>(1) Operationalize and support the M&amp;E Committee to make it functional;</li> <li>(2) Conduct regular meeting;</li> <li>(3) Train the committee on prepara-tion and implement- tation of M&amp;E</li> </ul>	B+WISER to provide training on M and E PAMB, DENR, LGUs	2014 2015	Training, Logistics	
27. Visitor facilities (11%)	Visitor facilities and services are inappropriate for current levels of visitation	There is PAMB building but located in private lot	In 2007 DENR established KWFR building in Mayagay but only in private lands		<ul> <li>(1) Establish- ment of PAMB building</li> <li>(2) PAMB to request funding</li> </ul>	PAMB to draft resolution	2014	PAMB resolution	

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/ Gaps	Facilitating/ Hindering Factors	What is/ are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
					support for building/ office from the Provincial Government				
28. Commer- cial tourism operators (16%)	There is little or no contact bet managers and tourism operators using the PA Potential tourism sites in Kaliwa overlap with the CAD	Commercial tourism not being tackled during PAMB meetings	Sangab Cave (CADT area) Kaliwa Water Resort	12 IPs were trained as tour guided in Daraitan; San Andres has 30 trained tour guides; with on- going training for another 15 pax	<ol> <li>Eco-tourism dev't</li> <li>Train eco- tourism guides (2 modules)</li> </ol>	Municipal Tourism Office	On-going	Training module	
29. Fees (16%)	Although fees are theoretically applied, they are not collected	No fees collected because of absence of PAMB resolution on the collection	KWFRs has a great potential for eco-tourism that attracts local and foreign tourist ex. Sangab cave -San Andres,; waterfalls in Kinabuan (Sta Ines, Tanay), Pagsangajan River/ Tinipak; Masanga point; Tulaog cave; Mt. Irid; Nilubugan/ Nilugugan		<ol> <li>Explore payment of ecotourism services;</li> <li>PAMB to draft resolution on the collection of fees;</li> <li>Conduct study on existing resources &amp;PES opportunity to determine fees to be recommend- ded for collection;</li> <li>PAMB to formulate resolutions, policy</li> </ol>	PAMB, DENR, LGUs B+WISER to continue assistance to PAMB in the formulation of resolution and LGU ordinance	2015		

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/ Gaps	Facilitating/ Hindering Factors	What is/ are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
					recommend- ding for the conduct of studies to determine appropriate fees to be collected				
30. Condition of values (40%)	Some biodiversity, ecological and cultural values are being partially degraded but the most important values have not been significantly impacted	2012 MWSS conducted biological survey	Observed PA deterioration of about 45%	<ol> <li>DENR has identified reforestatio n area in Kaliwa;</li> <li>Deer, wild boar are still seen in Maranglay Creek (Rizal)</li> </ol>	<ul> <li>(5) Communi-cate result of BMS to PAMB;</li> <li>(6) Support forest restoration/ reforestation project with the consents &amp; in partnership with IPs in the community</li> <li>(7) Promotion of existing IKSP;</li> <li>(8) Preserve traditional IP beliefs and tradition</li> </ul>	B+WISER to conduct biodiversity assessment	October 2014		

Crite Scor		Notes on Current Status	Weaknesses/ Issues/Gaps	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Timeframe	Resources needed including partnership	Milestones
S	.egal Status 67%)	The protected area is in the process of being gazetted/coven anted but the process is still incomplete	Conflicting policies: Proc 799, 693, 585, 1637, 1636, EO 698	Proc. 296 for implementation and with approved CMP	Harmonization of laws/policies (including IPRA)	DENR, PAMB	Continuing activity	B+WISER to provide TA	Harmonized implementation of laws
		Proc 296- Nov 24, 2011 signed by Pnoy	Landuses overlap/ conflict	Cong Acop has filed a bill converting more than 1000 has to A&D (legally not part of UMRPL)	Consultations with other sectors for the PA law				
			Tenure under Proc 585 expired	Atty Nicer studied the validity (Proc 585 is the only valid)- need for independent study	See implications of PA mgt plan enhancement on final technical description of the PA to input in the bill				
				DENR now preparing justification/docume ntation for necessity of filing a bill	Continue legal study				Bill for PA
r	PA egulation 55%)	Regulations for controlling land use and activities in the protected area exist but there are some weaknesses or gaps	Conflicting policies inside the watershed	Boundaries delineated and demarcated on the ground (SPZ, MUZ)- SY 2012	Enhance boundary delineation for strict protection zones	DENR-LEP (done)	Conducted 2012-2013		

## 4. UMRBPL DRAFT ACTION PLAN FOR IMPROVING MANAGEMENT EFFECTIVENESS

	iteria/ :ore	Notes on Current Status	Weaknesses/ Issues/Gaps	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Timeframe	Resources needed including partnership	Milestones
					Policy review including proclamation issued until resolution				
3.	Law enforceme nt (57%)	The staff have acceptable capacity/resour ces to enforce protected area legislation and regulations but some deficiencies remain	Inadequate enforcers	Snap plot training conducted among PENRO and CENROs (Jan 2014)	Snap plot monitoring (PDRF) thru cell-phone; issued cellphones to trained DENR	LGU, DENR, NGOs, PNP, NGAs	Continuing activity	B+WISER ELE action planning	ELE Plan Working enforcement system
			Lack of support/legal assistance	Hired 30 Bantay gubat (2013) but currently reduced to 15 BG due to fund insufficiency	Appoint permanent PASu				
			Selling of land rights/speculatio n uncontrolled	Regular forest rangers patrolling	Presence of PNP/linkage with PNP in the implementation of E.O. 23				
			Not being transparent on organizational structure	Deputation of multi- sectoral law enforcement team (16th IB, PNP-SAF)	Alternative/sustainable livelihood.				
			Poor implementation of environmental laws	Continuous livelihood training thru PPP with PDRF and DENR	Good governance framework				
				Environmental army (Antipolo, Rodriguez, Baras)	Political will				
				Adopt a river/mountain	IEC/Awareness campaign				

Criteria/ Score	Notes on Current Status	Weaknesses/ Issues/Gaps	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Timeframe	Resources needed including partnership	Milestones
			Formation of River Council (NGO- driven)	Integration of environmental laws and proper monitoring				
4. Protected area objectives (52%)	The protected area has agreed objectives, but is only partially managed according to these objectives	Open access	Relocation/ Prevention of informal settlers in the PA Massive rehabilitation both vegetative and engineering	Observe the FPIC process Sustain the massive rehabilitation of the PA	NCIP, LGUs LGU DENR Community PAMB	On-going		
5. Protected area design (60%)	PA design helps achievement of objective; It is appropriate for species and habitat conservation; and maintains ecological processes such as surface & groundwater flows at a catchments scale, natural disturbance patterns etc.	Plan needs updating		PAMP integration to CLUP; Harmonization of NGAs plans in consultation with private stakeholders	All Second level LGUs submitted their approved CLUP except Baras	Approved 2013		

-	iteria/ ore	Notes on Current Status	Weaknesses/ Issues/Gaps	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Timeframe	Resources needed including partnership	Milestones
6.	<ol> <li>Protected area boundary demarcatio n (50%)</li> </ol>	The boundary of the PA is known by both the management authority and local residents	Territorial disputes between claimants/tenure d migrants and government	100% demarcation on the ground-done	Zoning of the PA (ground delineation)- done	Concerned LGUs	Continuing activity		100% demarcation done
		Neighboring land users but is not appropriately demarcated	Political issues- jurisdiction issue between LGU & dept (DENR)/PAMB/ NCIP/LLDA	Boundary settlement unit under the office of the Gov	LGU Boundary dispute (Amicable settlement through Municipal/City council- Pending disposition by SP Rizal (Tanay-Baras; San Mateo Antipolo; Antipolo, Rodrigues-San Mateo				
				For exploration of amicable settlements	Enhancement of IEC and boundary visibility on the ground	TA from DENR			IEC
					Resolve political issues by democratic talks between the parties concerned				
7.	Manageme nt plan (86%)	Management plan exists and is being implemented	PAMB Operations Manual needs updating/ translation	Planning workshops on PA enhancement	Update using new guidelines and translate into Filipino	B+WISER to provide TA on refinement PAMB and PASu	On-going		PAMB operations manual refinedand translated into Filipino
			Lack of Law Enforcement Plan		Refine the Operations Manual				

Criteria/ Score	Notes on Current Status	Weaknesses/ Issues/Gaps	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Timeframe	Resources needed including partnership	Milestones
(2) There is an e	process allows adea stablished schedule	and process for per	r key stakeholders to inf iodic review and updatir e routinely incorporated	luence the management plan ng of the management plan into planning				
8. Regular work plan (Annual WFP) (62%)	A regular work plan exists and many activities are implemented	Lack of coordination and collaboration between DENR and LGU	PaSU coordinated with San Mateo	Look at co-management as a possible way of moving forward for eco- tourism and maintenance and protection of reforested area	PASu, APAsu,	On-going		
			Presentation of WFP to PAMB	Engagement of 3rd party monitoring	POs; LGUs; PDRF and other NGOs			
				Activation of multi-partite monitoring team (MMT)	EMB, LGUs	3 <sup>rd</sup> Q- 2014	Funding, training	
9. Resource inventory (50%)	Information on the critical habitats, species, ecological processes & cultural values of the PA is sufficient for most key areas of planning & decision making	Special skill in monitoring occurrence of species	Started BMS (2013)	Information data based system	DENR, LGU, other stakeholders	March 2014, quarterly	Technical staff	
				BMS presentation with PAMB			Training	

Criteria/ Score	Notes on Current Status	Weaknesses/ Issues/Gaps	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Timeframe	Resources needed including partnership	Milestones
				Key species to monitor			Funding	
				Need training/skills in analysing technical info for planning and decision making			Vehicle (Truck)	
10. Protection systems (43%)	Protection systems are only partially effective in controlling access/ resource use	Limited resources, and technical capabilities	With 15 bantay gubat 2 Forest rangers each in 5 per patrol sectors	Reporting system (Forest guards)	DENR, Bantay gubat	Continuing	Communication equipment	
			Environmental army	Additional support in terms of apprehension, filing of cases, hauling of confiscated forest products			Training	
				Construction of impounding areas			Legal assistance	
				Institutionalization of snap plot reporting system			MOA with Provincial Atty office	
							Funding- partnership with LGUs	

Criteria/ Score	Notes on Current Status	Weaknesses/ Issues/Gaps	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Timeframe	Resources needed including partnership	Milestones
11. Research (62%)	There is considerable survey and research work but it is not directed towards the needs of protected area management	Research output (BMS of Haribon) was not presented to PAMB but accomplishment s report were given to the Region		Research on water quality	EMB, LLDA	Periodic monitoring- once a year	Funding	
				Review of existing policies	DENR, OSEC			
				Constitute PAMB as a water quality area management board				
12. Resource manageme nt (50%)	Many of the requirements for active management of critical habitats, species, ecological processes & cultural values are being implemented but some key issues are not being addressed	Lack of awareness among PAMB members on resource mgt.	Involvement of LGUs in workshops being conducted by the B+WISER	Awareness enhancement (PAMB); Team building; Cross-visit (Palawan, Mt Pulag)	B+WISER	3 <sup>rd</sup> quarter	Logistics Funding IEC materials	

Criteria/ Score	Notes on Current Status	Weaknesses/ Issues/Gaps	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Timeframe	Resources needed including partnership	Milestones
13. Staff numbers (62%)	Staff numbers are below optimum level for critical management activities	No fund for PA;	With 4 CDOs (contractual); 15 BG; 2 Laborers Extension officers on NGP-22;	Legislate PA & create PASu position	DENR	Immediately		
		Absence of full- time PASu		Additional staff/ Re- instatement of 15 BGs, legal officer; biologist and engineer	PASu, APASu			
				Encourage the province to create a PASu unit under the PENRO	DENR, LGU			
14. Staff training (60%)	Staff training and skills are adequate, but could be further	Limited resources, and technical capabilities	Geo-tagging, GIS training	Training on community organizing	Technical experts of CO	2014-2 <sup>nd</sup> quarter	Training	
	improved to fully achieve the objectives of management		Basic ELE and forest protection	Capacity building on managerial function for PAMB				
			Sustainable financing	Private sectors' participation	B+WISER			

Criteria/ Score	Notes on Current Status	Weaknesses/ Issues/Gaps	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Timeframe	Resources needed including partnership	Milestones
15. Current budget (50%)	The available budget is acceptable but could be further improved to fully achieve effective mgt			Sustain the budget for the maintenance of the project; Explore sustainable financing	DBM DENR PASu PAMB	Continuous		
16. Security of budget (29%)	There is very little secure budget and the protected area could not function adequately without outside funding	Limited funding, stable/sustainab le sources lacking	Only DENR 4 provides regular funding; last PAMB summit in Tayabas it was agreed that all PAMBs will establish their PES (resolution drafted for UMRBPL); identified already biking as source of PES in San Mateo side; B+WISER conducted already SF workshop to identify sources of PES	Determine the mechanics for operationaling PES	PAMB (eco- tourism & Resource Committee Need for committees to be functional	1-2 years	TA from B+WISER	PES established

Criteria/ Score	Notes on Current Status	Weaknesses/ Issues/Gaps	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Timeframe	Resources needed including partnership	Milestones
		Not secured	Budget: 170 K a year prior to 2011; 2011-3 million 2013- 183 M (NGP+ UM) 2012-50 million	PAMB should be involved in work and financial planning				
				Identify needed leveraging				
				Revenue generation for IPAF				
				Secure automatic retention of IPAF				
				Legislate PA & create PASu position with SG 26 & provision corresponding budget				
				Crafting PAMB resolutions on PES	PAMB, Concerned LGU	Yearly	Proposal	
				Consistency in budget allocation	DENR- main		WFP	
17. Manage- ment of budget (41%)	Budget management is adequate but could be improved	PAMB does not adequately participate in budgeting/ work and financial planning (DENR only presents the budget- their own after already completed)		Be specific in fund allocation/ monitoring	PAMB resource mgt committee	This coming budgeting period (July- August)		PAMB involvement in work and financial planning (especially when there is already own generate funding)

Criteria/ Score	Notes on Current Status	Weaknesses/ Issues/Gaps	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Timeframe	Resources needed including partnership	Milestones
			Spending budget per activity- NGP, biodiv unit, law enforcement, SW mgt, enterprise devt unity	Transparency in budget allocation and utilization, with PAMB participation				
			Annual procurement plan	Sustainability of the budget		All year round	WFP	
18. Equipment (52%)	There are equipment and facilities, but still some gaps that constrain management	Absence of/Inadequate gadget for monitoring illegal activities	Snap plot training completed by PDRF- SMART Com for DENR only	LGUs should also be provided with snap plot equipment	PAMB	Next month	Snap plot camera and training from SMART	Training and camera
		Inadequate radio communi- cation	Some gadgets for snap plot (cell phone with camera and GPS provided to DENR for PA)	PAMB to write a resolution for SMART to provide additional snap plot training and cellphones to LGUs	DENR/PAS U (for radio comunicati on)			
			DENR has 2 pickups (4x4), and 5 motorcycles	Horses for IPs to enable them get involve in law enforcement	NCIP to help the IPs in leveraging			
				Procure radio equipment NCIP to identify needs with IPs				
				Additional equipment such as binocs, spotting-scope, motorcycle, horse, xerox machine; plotter	B+WISER	All-year round	Training, logistics	

Criteria/ Score	Notes on Current Status	Weaknesses/ Issues/Gaps	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Timeframe	Resources needed including partnership	Milestones
19. Mainte- nance of equipment (50%)	There is some ad-hoc maintenance of equipment and facilities		Presently DENR because the PA does not have its own equipment	Make this part of responsibilities of PAMB once it already have its own equipment				
20. Education and awareness (52%)	There is an education and awareness programme but it only partly meets needs and could be improved	Indifference/ luke-warm attitude of LCE (San Mateo) on PA Mgt	Ongoing IKSP for Calawis and San Jose (Antipolo in relation to CADT application)	Reactivate Dalaw Turo	NCIP	Begin this year and continue	IEC	
		Inadequate technical know- how/capacity in PA management	Tanay IPs has ADSDPP	Strengthen PAMB members' understanding of their role	PAMB committee		Dalaw Turo	
		Capacity/aware ness of communities in waste management		Strengthen and disseminate info on IKSP			Training	
		No budget for "Dalaw turo"		IEC at grassroot level				
				Develop a website for UMRBPL				

Criteria/ Score	Notes on Current Status	Weaknesses/ Issues/Gaps	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Timeframe	Resources needed including partnership	Milestones
21. Planning for adjacent land and water use (48%)	Adjacent land and water use planning partially takes into account the long term needs of the protected area	Need to strengthen permitting system and record keeeping/ evaluation of permittees/perm itting conditions (including database)	Baras and Tanay integrates PA in local devt planning (CLUP, with resolution)	PAMB to have proactive role in permitting/licensing/projec ts	РАМВ			
				Baras data should be included in the PA plan				
			DENR has already oriented all LGUs on the Pa mgt plan	Harmonization of plans	EMB			
				Inventory land and water users, including agencies with mandates in adjacent areas (and within) and their permit conditions	LLDA			
				All the other LGUs should integrate the PA plan in their development plan, as agreed				
Additional points	Management of corridors linking the PA provides for wildlife passage to key habitats outside the PA	PA mgt plan enhancement		РАМВ				

Criteria/ Score	Notes on Current Status	Weaknesses/ Issues/Gaps	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Timeframe	Resources needed including partnership	Milestones
22. Land and water planning for ecosystem services and species conservati	Management of corridors linking the protected area provides for wildlife passage to key habitats outside the protected area	Harmonization of overlapping laws and plans						
on		Enhancement of the PA plan & integration later w/LGU, IPs & other stakeholders plans						
	"Planning addresses ecosystem- specific needs and/or the needs of particular species of concern at an ecosystem scale							

Criteria/ Score	Notes on Current Status	Weaknesses/ Issues/Gaps	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Timeframe	Resources needed including partnership	Milestones
23. State and commercial neighbors (40%)	There is contact between managers & neighbouring official or corporate land & water users but little or no cooperation	See above info on adjacent water and land users		Strengthen collaboration/coordination/ cooperation	PAMB			
24. Indigenous people (71%)	IPs directly contribute to some relevant decisions relating to management but their involvement could be improved	IP kaingin practice seen as hazardous to the environment	IP chieftain member of PAMB	Identify more sustainable agricultural practices/ livelihood; educate them on these	PAMB; Cultural Mgt Committee			
	mprovod	ADSDPP plan preparation and implementation has no secure funding/ dependent on sponsors		Identify source of funding for IPs				
		IP lacks budget for attending PAMB meeting	DILG Circular on IP mandatory representative to local legislative body (provincial)	Capacitate IPs in funds sourcing	NCIP			

	Vulnerability of					including partnership	
	IPs to influence of outside group (migrants); they sell land rights		Strengthen convergence of different agencies				
			Strengthen IP role in PAMB				
			NCIP to monitor influx of migrants/selling of rights in CADT areas				
			Educate IPs on implications of selling of land rights to migrants				
			Utilize indigenous knowledge, skills and practices				
			Document bad stories and evaluate				
Local communities directly contribute to some relevant decisions elating to nanagement but their nvolvement could be	Weak cooperation/ coordination among stakeholders		Strengthen community participation in PA mgt plan enhancement; IEC and capability building				
	ommunities rectly ontribute to ome relevant ecisions lating to anagement ut their volvement	ommunities cooperation/ rectly coordination ontribute to among ome relevant stakeholders ecisions lating to anagement ut their volvement ould be	ommunitiescooperation/ coordinationrectlycoordinationontribute toamongome relevantstakeholdersecisionsanagementlating toanagementut theirvolvementvolvementbuild be	knowledge, skills and practices         Document bad stories and evaluate         Docal       Weak         cooperation/       Strengthen community participation in PA mgt plan enhancement; IEC and capability building         operations       stakeholders         anagement ut their volvement build be       stakeholders	knowledge, skills and practices         book       Document bad stories and evaluate         book       Weak         cooperation/       Strengthen community participation in PA mgt plan enhancement; IEC and capability building         pome relevant ecisions lating to anagement ut their volvement build be       stakeholders	knowledge, skills and practices       knowledge, skills and practices         bocument bad stories and evaluate       Document bad stories and evaluate         bocal       Weak         cooperation/ rectly       Strengthen community participation in PA mgt plan enhancement; IEC and capability building         borne relevant ecisions lating to anagement ut their volvement build be       stakeholders	knowledge, skills and practices       knowledge, skills and practices         bocal       Document bad stories and evaluate         bocal       Weak         cooperation/       Strengthen community participation in PA mgt plan enhancement;         intribute to       among         stakeholders       Stakeholders         bocisions       stakeholders         anagement ut their       it their         volvement buld be       it their

Criteria/ Score	Notes on Current Status	Weaknesses/ Issues/Gaps	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Timeframe	Resources needed including partnership	Milestones
26. Impact on communi- ties	<ul> <li>(1) There is open communication and trust bet local and/or IP, stake-holders &amp; PA manager</li> <li>(2) Program to enhance community welfare, while conserving PA resources, are also being implemented;</li> <li>(3) Local and/or IPs actively support the protected area</li> </ul>			IEC and constant consultation/ participation Alternative livelihood generation Strengthen coordination/cooperation with IPs				
27. Economic benefit (67%)	There is some flow of economic benefits to local communities		PA activities are just starting to provide revenues	Through the PES	РАМВ			

Criteria/ Score	Notes on Current Status	Weaknesses/ Issues/Gaps	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Timeframe	Resources needed including partnership	Milestones
				Implementation of sustainable livelihood (including for IPs)				
			Benefits to local communities discussed during SF workshop in Dec (BWISER)		LGUs			
28. Monitoring and evaluation (64%)	There is an agreed and implemented monitoring and evaluation system but results do not feed back into management	Low monitoring of illegal activities in the watershed	Accomplishments are being monitored and reported during PAMB meetings as basis for management	Develop monitoring plan and program	PAMB M&E committee	BWISER to provide TA		
		Regular quarterly BMS and presentation of results to PAMB		Installation of High Technology (GPS/GIS) that will serve as monitoring system				
				Enhance monitoring and evaluation capability (law enforcement)				
29. Visitor facilities (36%)	Visitor facilities and services are inappropriate for current levels of visitation		Ongoing initiatives: trails, view deck, visitors center, souvenir shop with funding from DENR	Make ecotourism an agenda in the PAMB summit	PAMB and PASU			

Criteria/ Score	Notes on Current Status	Weaknesses/ Issues/Gaps	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Timeframe	Resources needed including partnership	Milestones
30. Commerci al tourism operators (36%)	There is contact between managers and tourism operators but this is largely confined to administrative or regulatory matters	No	Existing agroecotoursim sites and CAMP Explore (with land claimants/tenured migrants)	Develop ecotourism; Utilize IP as tour guides; Later promotion and linkage with ecotourism operators/agents	PAMB PASu			
31. Fees (26%)	Fees are collected, and make some contribution to the protected area and its environs	Appropriate fees not yet established/agre ed upon	Already drafted a MOA for four tourism service providers	Establish the fees; Conduct valuation	PAMB B+WISER to provide TA			
Additional point	Accessed IPAF							
32. Condition of values (38%)	Some biodiversity, ecological and cultural values are being partially degraded but the most important values have not been significantly impacted	Apparent disinterest or low level of commitment by some PAMB members		Identify frequent absentees				
				Enforce attendance and institute system for alternate representative				

Criteria/ Score	Notes on Current Status	Weaknesses/ Issues/Gaps	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Timeframe	Resources needed including partnership	Milestones
				Strengthen environmental law compliance/enforcement (including deputation) PAMB to encourage/ prod LGUs to institutionalize MENRO position				
33. Additional Info on SAPA, other agreement for commercial use	The assessment of the condition of values is based on research and/or monitoring	Indiscriminate land development		Establishment of regulations concerning permit application and implementation	PAMB			

## 5. QUINALI "A" DRAFT ACTION PLANS FOR IMPROVING MANAGEMENT EFFECTIVENESS

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering	What is/are now being	Suggested Adaptive Mgt.	Who will	Time. Frame	Resources needed	Milestones
			Factors	done now and by whom?	Actions/ Next Steps	do?		including partner- ship	
1. Legal Status (67%) (maintain)	The protected area is in the process of being gazetted/ covenanted but the process is still incomplete	PA initial component	with maps, with PASA SRPAO, initial PA plan made 1997, necessary documents submitted to Central Office but was not acted upon	scheduled for site visit on 29 April for preparation of maps; under national review (after review PAMB will draft PP)	Conduct public consultations with LGUs and various stakeholders and present to the national NIPAs review committee as PA	PAMB	include in the budget for 2015	funding for consulta- tions	Result of consultation recommendin g MMWFR as a PA as submitted to the review committee
2. PA regulation (0%) (from 0 - at least 34%)	There are no regulations for controlling land use and activities in the protected area	Lack of interventions within the adjacent barangays; Poor implementation of laws	PA is not officially delineated and zoning has not been established	Ongoing evaluation by DENR-LEP; With marker/ Demarca-tion	Conduct preparatory work to be done by PAWCZMS; Zoning to be done by PAMB; Formulate policy for resource use (for buho, rattan and fuel wood) once zoning has been completed; Discuss the issue with Forestry unit	PWCZM S PAMB PAMB Forestry Unit	include in the budget for 2015		Zoning wth MMWFR established; Policies for resource use formulated
3. Law enforcement (53%) (maintain)	The staff have acceptable capacity/resources to enforce protected area legislation and regulations but some	Lack of interventions within the adjacent barangays	one (1) ranger being drawn in by Forestry Unit	none	Request/include in the 2015 budget; Review provision of additional Forest Ranger	PASu	include in the 2015 budget		Increase in the number of FR

**a.** Mt. Masaraga Watershed Forest Reserve (MMWFR)

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time. Frame	Resources needed including partner- ship	Milestones
	deficiencies remain				(FR) in the DENR Rationalization Plan; Explore partnership with LGUs for volunteer FRs				
		Poor implementation of laws							
4. PA objectives (50%) to (67% or 2/3)	The protected area has agreed objectives, but is only partially managed according to these objectives	High turn over of PASu resulted in the misplacement of management plan	Operating without Management Plan, just relying on the regular actvities of the sector	RED is requiring PASu office to submit an outline or framework for Mgt Plan	Prepare and reformulate Management Plan	PASu, PAMB	draft plan in 2014	B+WISER to produce/input data (especially maps)	Draft of the Management Plan
5. PA design (47.2%) (maintain)	Protected area design is not significantly constraining achievement of objectives, but could be improved	No management zoning yet			Conduct research on the adequacy of the size of the PA as watershed forest reserve to ensure continuous supply of ecosystem services			partnership with BUCAF; check with ICRAF/B+WI SER re: Hydrology study	Research conducted
6. Protected area boundary demarcation (14%) to (34- 64%)	The boundary of the protected area is not known by the management authority or local residents/neighbouring land users	There is map delineation but no ground delineation			(LEP is currently conducting evaluation of the delineation) Discuss LEP result in a PAMB meeting;	LEP LEP LEP and PASu	After LEP result are in	regular budget	Delineated boundaries are known to management and local communities

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time. Frame	Resources needed including partner- ship	Milestones
					Explore presentation and discussion of LEP result with LGUs and other stakeholders				
7. Management plan (31%) to (67%)	A mangement plan has been prepared	Need for Protected Area Suitability Assessment (PASA)		RED is requiring PASu office to submit an outline or framework for Management Plan	Prepare and reformulate Management Plan	PASu			Management Plan
8. Regular work plan (86%) (maintain)	A regular work plan exists and all activities are implemented	No management office inside the PA	no management plan, therefore not link to the regular work plan; there is a PAMB hall but located in Herrera, Ligao City		Explore support from LGU and academe for the construction of the facility/office near the site; Link the regular work plan with the management plan	PASu	2015		Regular work plan linked to management plan
9. Resource inventory (44%) to (67%)	Information on the critical habitats, species, ecological processes and cultural values of the protected area is sufficient for most key areas of planning and decision making				Focused on forest resource management Acquire copy of the HASAL and Associate Study 2004 (Forest by watershed) Acquire sattelite data from B+WISER	PASu	2014	B+WISER to provide sattelite data	Copy of HASAL and Associate Study and sattelite data acquired

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time. Frame	Resources needed including partner- ship	Milestones
10. Protection systems (53%) to (67%)	Protection systems are moderately effective in controlling access/resource use				Prepare and reformulate Management Plan Coordinate with LGU for alignment of zoning and plans	PASu and PAMB		WMC convergence initiative	Zoning and plan of PA is aligned with the zoning and development plan of LGU
11. Research (31%) to (67%)	There is no survey or research work taking place in the protected area				Conduct research on the adequacy of the size of the PA as watershed forest reserve to ensure continuous supply of ecosystem services	PASu		partnership with BUCAF; check with ICRAF/B+WI SER re: Hydrology study	Research conducted
12. Resource management (33%) to (67%)	Very few of the requirements for active management of critical habitats, species, ecological processes and cultural values are being implemented				Prepare and reformulate Management Plan	PASu			Management Plan
13. Staff numbers (42%) to (67%)	Staff numbers are inadequate for critical management activities	There is a need to revise the standard number of PASUs staff; PASUs staff is inadequate	3 CENRO- Guinobatan staff (full time), with volunteer from PAMB; but no volunteer from operations		Additional one Forest Ranger as a result of RAT plan		2015		Increase in the number of FR (total of 4)
14. Staff training (58%)					Additional trainings on law	PASu	2015		New staff is adequately

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time. Frame	Resources needed including partner- ship	Milestones
to (67%)					enforcement, how to relate and mobilize LGUs and Basic PA management for the incoming staff Trainings for PAMB committees (4 proposed committees) for their specific functions				trained
15.Current budget (33%) to (67%)	The available budget is inadequate for basic management needs and presents a serious constraint to the capacity to manage	The MOOE budget for PASU activities (P20k) coming from CENRO operation is inadequate			(Will depend on the management plan) Present management plan to planning unit	PASu	2016		50% of the Work and Financial Plan is funded
16. Security of budget (28%) to (67%)	There is very little secure budget and the protected area could not function adequately without outside funding	Budget is inadequate			Present management plan to the planning unit (will depend on the presented management plan) Explore additional support from LGUs	PASu and PAMB	2015		Regular increase budget from DENR and additional support from LGU
17.Managemen t of budget	Budget management is very poor and	Limited budget No budget for PA	-		Present management				

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time. Frame	Resources needed including partner- ship	Milestones
(44%)	significantly undermines effectiveness	management	_		plan to the planning unit (will depend on the presented management plan) Explore additional support from LGUs				
18.Equipment (14%) (maintain)	There are little or no equipment and facilities for management needs		No proposal submitted to RED because there is no management plan as basis and PASu is not proposing a budget		Establish in the management plan the needed equipment for PA management	PASu	2015		needed equipment established in the management plan
19.Maintenanc e of equipment (0%)	There is little or no maintenance of equipment and facilities		buugot		Establish in the management plan the needed equipment for PA management		2015		needed equipment established in the management plan
20. Education and awareness (53%) to (67%)	There is an education and awareness programme but it only partly meets needs and could be improved	Additional trainings	Audiences are not clearly identified		Target the direct person whose behaviour currently contribute to direct threat as the audience for the IEC and the governance structure that	PASu	2015		Campaign directly to perpetrators of threats are identified and communcation campaign is designed for them

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time. Frame	Resources needed including partner- ship	Milestones
		Wildlife enforcement officers need deputation Weak institutional and legal capacities			allow this behaviour to persist Explain in details the purpose, objectives & benefits of the project to be implemented in the community Re. orientation of PAMB on new laws				
21. Planning for adjacent land and water use (39%) to (67%)	Adjacent land and water use planning partially takes into account the long term needs of the protected area				Coordinate with LGU for alignment of zoning and plans		1st Quarter FY 2015 (4th Quarter CY 2014)		
22. State and commercial neighbors (39%) to (67%)	There is irrigators association, refilling station, resorts, water district that relies on the source				Inventory of commercial establishment who are drawing ecosystem services from the PA;	PASu	2014- 2015	PPP and PES Specialist to assist (B+WISER)	Commercial establishment inventory
23.Indigenous people (0%)	Indigenous and traditional peoples have no input into decisions relating to the management of the protected area	NOT RELEVANT							
24. Local communities (69%)	Local communities directly contribute to some relevant								

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time. Frame	Resources needed including partner- ship	Milestones
(maintain)	decisions relating to management but their involvement could be improved								
25. Economic benefit (42%) to (67%)	There is some flow of economic benefits to local communities				Formulate policy for resource use (for buho, rattan and fuel wood) once zoning has been completed				
26. Monitoring and evaluation (53%) to (67%)	There is some ad hoc monitoring and evaluation, but no overall strategy and/or no regular collection of results				Integrate M&E in the management plan	PASu	2014		Management plan includes M&E component
27. Visitor facilities (3%) (maintain)	There are no visitor facilities and services despite an identified need	There was a PAMB building constructed thru a private contractor but such building is not yet turn over to the DENR							
28. Commercial tourism operators (0%)	There is little or no contact between managers and tourism operators using the protected area	NOT RELEVANT							
29. Fees (0%)	Although fees are theoretically applied, they are not collected	Water is main ecosystem service but low charge collected on water services			Inventory of commercial establishment who are drawing ecosystem services from the PA				Policy formulated for use of resources

Criteria/ Score	Notes on Current status	Weaknesses/ Issues/Gaps	Facilitating, Hindering Factors	What is/are now being done now and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time. Frame	Resources needed including partner- ship	Milestones
					Formulate policy for resource use (for buho, rattan and fuel wood) once zoning has been completed [permitting/buho extraction]				
30. Condition of values (50%) to (67%)	Some biodiversity, ecological and cultural values are being partially degraded but the most important values have not been significantly impacted				Maintain forest cover within the PA and establish Riparian forest rehabilitation	PAMB, PASu, LGU	2014	with B+WISER partnership	Forest cover within PA is protected and Riparian forest rehabilitation inititated

Criteria/ Score	Notes on Current status	Weaknesses / Gaps	Facilitating/Hi ndering Factors	What is/are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partner- ship	Milestones
1. Legal Status (67%)	The protected area is in the process of being gazetted/ covenanted but the process is still incomplete	No RA yet (PP 413, in 2000)	Cong. Bichara and the author are at odds with each other	PA bill already filed by Cong. Gonzales (PASU attended Comm on Nat. Resources third and final reading in Congress. Cong Bichara submitted proposed amendment so that all 6 km permanent danger zone be included in the PA.	Proposed amendment to the bill (to include all areas covered by 6 km permanent danger zone- issue is this area includes A&D and private lands and some barangays (eg Magapo) have settlement- needs to be evicted once amendment is approved)	PAMB to study and issue a resolution concerning this issue	Depends on outcome of discus- sion between the two congress man		PA Law
			Cong Gonzales promised to discuss with Cong. Bichara		All the affected barangays should be consulted				
2. PA regulation (64%)	The NIPAS law is used in regulating land uses and activities;	Need to operationalize MVNP-PAMB Amended Operations Manual of 2013	PASU has no staff to do compiling/ database of resolutions (Hindering)		Need to enhance, functional, transparent, accountable and participatory governance by the PAMB and PASU	PAMB			Database of PA regulations

## **b.** Mayon Volcano Natural Park (MVNP)

Criteria/ Score	Notes on Current status	Weaknesses / Gaps	Facilitating/Hi ndering Factors	What is/are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partner- ship	Milestones
	There are numerous PAMB resolutions (e.g., MBNP user's fee, MOAs)	No database of resolutions/ regulations	IEC conducted during community assemblies (facilitating)		Conduct orientation and implement the Amended PAMB Manual	PAWZCM to finalize and submit the proposal to OSEC			
	The PA has an approved management zone	No budget and lacks manpower to implement	PASU Designate does not know if he will still be the PASU under the RAT Plan	Status quo	Provide staff under the PASU (implementation of the RAT Plan)				
	PAMB Manual of Operations revised and printed, approved by the Board but the RED has not signed yet								
	PAWCZM has prepared a proposal for utilization of OSEC funds (including hiring of technical staff) for PA management				Explore other opportunities/ solutions		Submit the proposal to OSEC by April		Proposal submitted

Criteria/ Score	Notes on Current status	Weaknesses / Gaps	Facilitating/Hi ndering Factors	What is/are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partner- ship	Milestones
3. Law Enforce- ment	There are major deficiencies in staff capacity/resource s to enforce protected area legislation and regulations	No reliable enforcement to address illegal poaching	PASU is presently the only one involved in enforcing PA regulations (hindering)	PASU for this month hired one Bantag Gubat charged against DENR regular funds (till June 2014)	Reorientation of PAMB members on new laws	PAMB to issue resolution re: training and deputation of Barangay Captains and other PAMB members as PA guards with allowance/ incentives. specifying tasks and performance standards		Leverage outside assistance	Deputation of brgy. Tanods PA guards
		LGUs have limited funds	DENR has alloted budget for PA protection (patrolling) amounting to 307,000 this year through the PENRO and CENRO	Total of 18 (11 in 2013 and 7 this year) deputized as WEO, but deputation needs to be renewed every year	Barangay Tanod as deputized ELE volunteers				

Criteria/ Score	Notes on Current status	Weaknesses / Gaps	Facilitating/Hi ndering Factors	What is/are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partner- ship	Milestones
		Need to enforce NIPAS and other pertinent laws	No ELE equipment (IEC, patrolling, paraphernalia, etc.)	Many community members had been trained as WEO but only a few accepted to be deputized because of the volunteer nature of this engagement	Strengthen deputized Wildlife Enforcement Officer				
			LGUs need to provide support to WEOs (no honorarium)		Instead of hiring BG, deputize Brgy. Tanod to do enforcement and DENR and LGUs to provide allowance and other incentives (study the implications of this re: COA regulations) Conduct of regular patrolling				
					Use the P307,000 to strengthen protection activities (e.g., in hiring barangay captains as guards, procurement of needed equipment)				

Criteria/ Score	Notes on Current status	Weaknesses / Gaps	Facilitating/Hi ndering Factors	What is/are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partner- ship	Milestones
4. Protected Area Objectives (40%)	No firm objectives have been agreed for the protected area (outdated Management Plan)	PAMB members do not have a copy of the plan	The RED has asked PASUs to present their management plans (proposed enhancements concentrated on ecotourism, PA protection and PAMB capability- building) on April 24-25 Region 5 PASU conference		Update the management plan and refine objectives as part of the updated management plan	PASU and PENRO Accountant and CENRO and PENRO planning officers to prepare the conceptual plan asked by the RED			Updated management plan with refined objectives
					Use the METT results in preparing the conceptual plan				
5. Protected area design (40%)	Protected area design is not significantly constraining achievement of objectives, but could be improved	Need to update the design	No recent scientific studies that can be used in refining PA design		Explore the possibility of making the areas for expansion proposed by Cong. Bichara as the PA bufferzone				Poposed expansion as the PA bufferzone
			Resource basic inventory outdated		Seek assistance from academic institutions, e.g., thesis of BU students				Thesis conducted

Criteria/ Score	Notes on Current status	Weaknesses / Gaps	Facilitating/Hi ndering Factors	What is/are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partner- ship	Milestones
			MOA with Bicol University re: use of MVNP as research site		Include in the proposed projects for OSEC funding	PAWZCM to include biodiversity assessment in OSEC funding request			OSEC funding
					Apply for grant				
6. Protected area boundary demarcation (47%)	A management plan exists but it is only being partially implemented because of funding constraints or other problems	Anahaw and pili used as vegetative marker of boundaries, however, not all survived	All areas are delineated and marked on the ground		Conduct boundary demarcation				Proper boundary/grou nd delineations
	All of the areas covered by the PA have been marked on the ground including the strict protection zone				Facilitate the relocation of boundaries/ground declamation and demarcation of the Protected Area and Buffer Zones, showing proper land use, Road networks, Vegetative area used, lay-out of projects and facilities as indicated in the				

Criteria/ Score	Notes on Current status	Weaknesses / Gaps	Facilitating/Hi ndering Factors	What is/are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partner- ship	Milestones
7. Management plan (64%)	The boundary of the protected area is known by both the management authority and local residents/neighbo uring land users but is not appropriately demarcated	Need to update the management plan (see notes above on PA management objectives and design)			Update, approve and implement the management plan	PASU and PAMB; DENR Region 5 to assist the PA plan enhancement / updating	May-14		Approved management plan
		Need to integrate with local plans			Integrate/ harmonization with barangay, municipal, and DENR plans	B+WISER to assist in the integration of PA/biodiversit y/CAA/DRRM in local plans			Integrated and harmonize local plans with DENR plans
					LGUs to be involved in the updated PA mgt plan preparation				
					Operationalize the PAMB Operations Manual				Operational PAMB manual of operations
	Size of PAMB-36 (24 Barangay representatives; 5 municipalities. 3 Cities, PPDO, DOT, NGO, Chair)				Make the seven (7) working Committees functional thorugh capacity development				Funtional committees

Criteria/ Score	Notes on Current status	Weaknesses / Gaps	Facilitating/Hi ndering Factors	What is/are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partner- ship	Milestones
8.Regular work plan (Annual WFP) (67%)	A regular work plan exists and many activities are implemented	DENR CENRO/ PENRO prepares the AWP as the funding comes from DENR central office			PAMB to input in the preparation of DENR's AWFP for MVNP	PASu	2014		AWP with PAMB input
		PAMB has no role even in approval of this AWP			Aim for PAMB to prepare own AWFP and have own budget				
		Limited funds			LGUs to prepare project proposal for areas under their jurisdiction for inclusion in the AWFP				
		Implementation dependent on DENR budget			PAMB to be trained on preparation of WFP				
					Explore resources sharing with LGUs, exercise outside leveraging				
9.Resource inventory (38%)	Information on the critical habitats, species, ecological processes and cultural values of the protected area is not sufficient to	Limited, need to update				PAWZCM to include RBI updating in the project proposal for OSEC Funding			

Criteria/ Score	Notes on Current status	Weaknesses / Gaps	Facilitating/Hi ndering Factors	What is/are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partner- ship	Milestones
	support planning and decision making								
10. Protection systems (13%)	Protection systems (patrols, permits etc.) do not exist or are not effective in controlling access/resource use	Need to strengthen			Strengthen patrolling system (see notes on law enforcement) for greater visibility	PAMB	2014		Protection systm raise to 60%
					Provide budget for barangays for actual patrolling (food, medicine)				
11. Research (42%)	There is a small amount of survey and research work but it is not directed towards the needs of protected area management	Research has to be aligned with and to input in PA management			Continue ERDS cloning poroject; MOA with Bicol University		On-going		Results in researches being use in PA mgt
					The PA as site for academic researches/theses with BU				
					Prepare list of the research topics needed				

Criteria/ Score	Notes on Current status	Weaknesses / Gaps	Facilitating/Hi ndering Factors	What is/are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partner- ship	Milestones
12. Resource mgt (47%)	Very few of the requirements for active management of critical habitats, species, ecological processes and cultural values are being implemented	Increasing conflicts in water allocation among users			Continue NGP and other tree planting activities within the PA				
					Prioritize fruit bearing trees eg berries, in the reforestation effort as birds eat these				
13. Staff numbers (33%)	Staff numbers are inadequate for critical management activities	The standard number of PASUs staff is inadequate			Augment the number of PA staff				
		There is an organizational structure but need to name the members of each committee			Name the members of the PAMB committee				

Criteria/ Score	Notes on Current status	Weaknesses / Gaps	Facilitating/Hi ndering Factors	What is/are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partner- ship	Milestones
14. Staff training (56%)	Staff training and skills are adequate, but could be further improved to fully achieve the objectives of management		PASU has undergone a lot of trainings		Conduct PAMB orientation (basic laws, PAMB powers and functions, etc.)	B+WiSER to provide assistance in conduct of PAMB orientation and training on PA plan updating	2nd Q 2014	campsite (MVNP)	Training/orienta tion conducted
					Conduct training on updating of PA management plan	DENR Region to provide speakers for PAMB orientation			
					Identify other training needs (e.g., law enforcement, PA management)				
					Value formation, leadership, leveraging skills, community organizing (tap LGU committee on economic affairs)				

Criteria/ Score	Notes on Current status	Weaknesses / Gaps	Facilitating/Hi ndering Factors	What is/are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partner- ship	Milestones
15. Current budget (56%)	The available budget is acceptable but could be further improved to fully achieve effective management	IPAF of MVNP amounting to 100,000.00 pesos has not been accessed/ used							
16. Security of budget (44%)	There is very little secure budget and the protected area could not function adequately without outside funding				Explore sources of revenues (e.g., PES/Sustainable Financing)	B+WISER to provide Technical Assistance	May-14		
17. Management of budget (47%)	Budget management is poor and constrains effectiveness				Generate first revenues				
	Budget process starts in September				Training on budgeting/financial management				

Criteria/ Score	Notes on Current status	Weaknesses / Gaps	Facilitating/Hi ndering Factors	What is/are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partner- ship	Milestones
	This has been done in Feb				Continue the practice of DENR Region inviting the the PASU in the WFP preparation for the DENR and in special projects preparation (submitted to DENR and PAWB planning)				
					Undergo training on generating and accessing IPAF	PAMB committee			
					Training on proposal preparation (for outside/donor funding)				
18. Equipment (4%)	2 computers; 1 camera; 1 vehicle MR to PASu but being used by PENRO; visitor center building with 12 cottages built by LGU Sto Domingo	Building in campsite- visitors' center (DENR) with 12 cottages built by LGU- no equipment		DOT will provide 100k for the improvement of some facilities (with DENR counterpart 100k for refurbising of visitors center- in April)	Identify other equipment needed	DENR REG, LGU sto domingo	2Q 2014		

Criteria/ Score	Notes on Current status	Weaknesses / Gaps	Facilitating/Hi ndering Factors	What is/are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partner- ship	Milestones
		No IEC equipment		DENR has existing MOA covering 35 ha for ecotourism, LGU will provide personnel tables and chairs for PASu (Visitors center)	DENR to provide support to the office of the PASu office (ie. Vehicle and equipment)	Imrovement of Visitor Center furniture and fixture and IEC materials to be provided by DENR-5 and LGU sto Domingo			
					Explore leveraging opportunities	DOT will provide 100k for improvement of some facilities (with DENR counterpart 100k for refurbishing of vistors's center – in April			
19. Maintenance of equipment (4%)									
20. Education and awareness (22%)	There is a limited and ad hoc education and awareness programme	Needs to improve/strengt hen IEC			Continue IEC among sorrounding communities (laws, biodiversity/protecti on/ecological balance)	B+WISER to provide technical assistance on IEC/ communicati on planning	2 Q 2014		

Criteria/ Score	Notes on Current status	Weaknesses / Gaps	Facilitating/Hi ndering Factors	What is/are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partner- ship	Milestones
					IEC to promote ecotourism				
21 .Planning for adjacent land and water use (38%)	Adjacent land and water use planning do not takes into account the long term needs of the protected area, but activities are not detrimental the area	Increasing water use conflict among poultry farm owners in Brgy. Baligang in Ligao City (water is free no regulation)			Review LGU-level land and water management related policies and legislative instruments (local ordinances) and align with PA needs				
	In brgy Padang, there is a barangay waterworks with 100 pesos fee per household				Enhance the quality of life in the Barangays to reduce threats				
					Explore PES arrangemments for water uses in Mayon headwaters				
					Integration of PA plans with Local Plans				

Criteria/ Score	Notes on Current status	Weaknesses / Gaps	Facilitating/Hi ndering Factors	What is/are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partner- ship	Milestones
23. State and commercial neighbours (20%)	There is contact between managers and neighbouring official or corporate land and water users but little or no cooperation	Need to inventory users of PA resources including farm- owners; livestock and poultry farms, tourism sites (e.g., Olala resort in Guinobatan and Mulad Bucad Grande in Guinobatan)			Strengthen cooperation between DENR, PAMB and local government, residents around the protected area	PAMB, DENR	2014		
22. Indigenous people (0%)		IPs are already living main stream or at the lowland they can no longer claim ancestral domain							
24. Local communities (51%)	Local communities have some input into discussions relating to management but no direct role in management				Practice public participation on major PA activities (e.i, planning IEC, law enforcement)				

Criteria/ Score	Notes on Current status	Weaknesses / Gaps	Facilitating/Hi ndering Factors	What is/are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partner- ship	Milestones
25. Economic benefit (38%)	Potential economic benefits are recognised and plans to realise these are being developed			NGP project in Mayon benefits communities in form of paid contract refor (data with DENR-PENRO)	Identify programs designed to promote sustainable livelihood ( eg for community organizations, women association				
	Accredited porters (14) and mountain guides (7)		In Sto Domingo community members are allowed to sell products		Train more accredited mountain guides				
26. Monitoring and evaluation (42%)	There is some ad hoc monitoring and evaluation, but no overall strategy and/or no regular collection of results			No M and E in place	Operationalize and support the M and E Commitee to make it functional	PAMB	2 Q 2014		
					Train the committee on the preparation and implementation of M and E				
27 .Visitor facilities (27%)	Visitor facilities and services are inappropriate for current levels of visitation	Need for more accredited/train ed guides	Proposed policy on visitors management		DOT to conduct further training/accredition				

Criteria/ Score	Notes on Current status	Weaknesses / Gaps	Facilitating/Hi ndering Factors	What is/are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partner- ship	Milestones
	Has visitor center with cottages, toiletss, trails inside the PA		Lack of equipment (i.e projector) and budget for IEC aand training		Finalize and conduct IEC on the visitors management policy of the province				
	Immediate evacuation during emergencies		MOA with Sto. Domingo		There should be police outposts inside the campsite				
			Porter and guides are trained and accredited, package ecotourism						
28. Commercial tourism operators (42%)	There is contact between managers and tourism operators but this is largely confined to administrative or regulatory matters	Unlicensed tourist guides – regulation not effectively enforced			Determine appropriate entry & exit points (one- entry, one-exit system)				
					Coordinate with DOT				
					Develop as a premier destination for ecotourism				
29. Fees (51%)	Fees are collected, and make some contribution to the protected area and its environs	Low charge on water services			Explore payment of ecosystem services				

Criteria/ Score	Notes on Current status	Weaknesses / Gaps	Facilitating/Hi ndering Factors	What is/are now being done now and by whom	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partner- ship	Milestones
					Water pricing mechanisms to generate the funds for watershed protection				
					Upgrade the fees	PAMB to amend MVNP user fees			
30. Condition of values (51%)	Some biodiversity, ecological and cultural values are being partially degraded but the most important values have not been significantly impacted				Promotion of local indigenous technical knowledge pertinent to conservation				
					IEC, ecological/biodivers ity awareness campaign				
					Strengthen protection and biodiversity conservation program				
					Implement Forest Restoration by B+WISER; REDD- plus intervention				

### 6. BWFR DRAFT ACTION PLAN FOR IMPROVING MANAGEMENT EFFECTIVENESS

	Issue Indicator	Comment/issues	Next Steps
3.	Legal Status	With PP 895 signed in Aug 15, 2005	
-	Protected area regulation	<ul> <li>Enforcement protocol created in 2012, just waiting for implementation</li> </ul>	To be revised
		With existing regulations for controlling land use (CSCs)	
5.	Law Enforcement	Refer to the existing AWP	
		With deputized WEO (yearly deputation)	
		Lumped within environmental fund	
		San Carlos City with annual budget for honorarium to WEO and Bantay Bukid	
		LGUs provides funds,	
		<ul> <li>except for Toboso</li> </ul>	
		<ul> <li>Calatrava -150K budget</li> </ul>	
		<ul> <li>Victorias- 600K budget for environment including enforcement-BBB II</li> </ul>	
		Province also provides budget of 600 pesos/month per Bantay Bukid in 10	
		Barangays (each brgy) but not all LGUs provide counterparts	
_	<b>B</b> ( ) <b>1</b> ( )	NNNP WFP with stipulated budget for patrolling, institutional support for trainings	
6.	Protected Area objectives	<ul> <li>4 goals with 5 objectives each (under existing GMP)</li> </ul>	
		With several efforts from existing institutions geared towards realization of	
		objectives	Committee created but not yet
		PEMO prepared WFP program for NNNP in an annual basis which is being	functional
		approved by PAMB	
		Embedded within GWP	Creation of NNNP
		DENR with GWP	consolidated general WFP
7.	Protected Area Design	Preparations: participatory led by DENR region with PEMO	
		Based on existing criteria	
		Conduct of multiple Ecological Assessment studies	
		Need for standard criteria specific for natural park	
		Case of DSB within SPZ	
8.	PA boundary demarcation	Boundary known to PAMB members and nearby land users	
	-	Monument already installed	
		Delineated by LEP in 2001 and demarcated (82,000+ ha)	
		SPZ demarcation about to be completed (on process Cadiz, DSB; Calatrava not	
		yet started)	

#### a. Northern Negros Natural Park (NNNP)

Issue Indicator	Comment/issues	Next Steps
	Planted rows of flowering trees as boundary marks	
	Problem with land owners in adjoining PA boundaries (relocation of boundaries)	
9. Management plan	Some part of the management plan already implemented	
Additional points	With stakeholders participation/consultations	Need proposed amondment
Additional points	Established schedule and process	Need proposed amendment for the operations manual
	With operations manual (2011)	for the operations manual
10. Regular WP	With enforcement manual but not yet implemented	
11. Resource inventory	Most of the targets of DENR are being accomplished	
	RBI (2003), Biodiversity assessment conducted every 3 years (PBCFI-FPE) c/o DENR and PEMO	
12. Protection systems	•	
13. Research	With Research communication (clarification on criteria 1 and 2)	
14. Resource management		
15. Staff numbers	No full-time PASU (concurrent)	
16. Staff training	•	
17. Current budget	•	
18. Security budget	No IPAF	
	GMP to increase budget allocation	
19. Management of budget	Will be based on respective WP per partners institutions	
	Not centralized and synchronized	
	Cities buy time vs Municipalities is	
	Lacking	
	Creation of PASU office	
20. Equipment	Available but scattered equipment	
	No owned equipment	
21. Maintenance of Equipment		
22. Education and awareness	We learn on our own	PA-wide program for education and awareness
23. planning for adjacent land and water use		
Additional points	21 a-b-c: corridors- existing	
24. State and commercial	Case of San Carlos City for Water levy (water district)	
neighbors	No regulations for users outside PA using water resources	
	No inventory conducted for water users	PES scheme
	BACIWA, NIA, with existing MOA with PAMB	
25. Indigenous peoples	•	

Issue Indicator	Comment/issues	Next Steps
26. Local communities	Well represented by different barangays and Pos	
Additional points	24 a MOA existing- donor assisted project	
27. Local communities	Participation in community mapping	
28. Monitoring and evaluation	Within the manual of operations	
29. Visitors facilities	In Silay and Victorias (LGU-operated)	
30. Commercial tourism operators	In the process of ejecting	
31. Fees	No IPAF	
32. Condition of values	Established in 1996	
Additional pts:	through academe	
	CBFM in Cadiz, EB ag, SCC, Calatrava	
	CSC in 11 LGUs (mostly are expired and for evaluation)	
	Nov 2013 MEMO Order (guidelines) was issued	
	Evaluation of performance (SRPAO-2003)	

#### **PROPOSED PRIORITY ACTIONS**

- Ten-year (10) WFP included in GMP
- Business plan prepared for presentation and approval (10 years)
- Implementation of unified protocol for enforcement
- Establishment of users fees for water users; accessing/establishment of IPAF
- Management structure already in the GMP- functions of all committees are assume by TWG
- IP concerns: awareness of IPs of PA and awareness on non-IPs to IPs importance
- Livelihood
- Address gender issues in the issuance of tenurial instruments
- Full time PASu personnel (as stated in the GMP) with budget
- Draft bill (PA law) already filed by Cong Cueva); started in 2007; DENR and province already started the initiatives as early as 1990s
- DENR to follow up implementation of the MOA on alliance
- Citizen scorecard
- Integration of approved PA management plan with the CLUP, FLUP, LGU plans and CDP

# b. Mt. Kanlaon Natural Park (MKNP)

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/ recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
1. Legal Status (100%)		RA 9154 (2001) MKNP Law					
2. PA regulation (96%)	Some issues and threats are not covered by PAMB regulation	RA 9154 (2001) MKNP Law	Implementation of policies on the number of climbers during peak and non-peak season Follow proper land use zoning ordinance based on the management zones/plan	PASu to assist in drafting of the resolution			PAMB resolutions in place and improving PA management
3. Law enforcement (86%)	Need to train and deputized more ELE enforcers/KGB for the whole MKNP area While violations and apprehensions and filing of cases are being monitored and recorded, Kanlaon has no		Implementation of unified protocol for enforcement	See ELE action plan	See ELE action plan	See ELE action plan	Strengthened law enforcement
4. PA	system for processing and analyzing the data for adaptive mgt The protected						

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/ recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
objectives (72%)	area has agreed objectives, but is only partially managed according to these objectives						
5. PA design (78%)	GMP has been updated in 2010 but for almost 6 years, PA has no regular budget from DENR (2000)						
6. Protected area boundary demarcation (88%)		PA 100% demarcated; The province has already submitted a plan for the planting of vegetative markers. But the province has not approved the budget for this, but scope for supplemental budget (20 km in Murcia and Bago City). This proposal can be template for the individual LGUs	Put up a natural boundaries (vegetative) in partnership with LGUs; Prepare a comprehensive demarcation plan, detailing counterpart from each LGU and the required budget from the province, including timeframe for implementation; Follow up PENRO proposal for province to support the planting (municipal to barangay)	PAMB to pass resolutions 1) requesting the LGUs for their counterpart, 2) the province to approve the submitted proposal; PASU to lead the preparation of the demarction plan with a core group composed of DENR, LGU and BWISER	First Quarter 2015 (Feb) for the PAMB resolution and refined proposals/comprehen sive demarcation plan; Onwards for the implementation	Ansel and Wilman to draft the PAMB resolution 1 and 2; PEMO to follow up the proposal and resolution 2	Demaracation plan; PAMB resolutions (2); Refined proposal to the province;

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/ recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
7. Management plan (81%)	Management plan has no clear conservation targets that would allow more systematic management and monitoring of progress in biodiversity conservation. PA plan needs enhancement in terms of addressing climate change vulnerability and disaster risk reduction and IP concerns		Review and updating of the management plan including the implementation plan (linked to the business plan revision); Formation of the planning core group and work schedule and budget/counterpart arrangement for PAMB approval; Revision of the business plan following the enhanced/updated PA plan; Integration of approved PA management plan with the CLUP, FLUP, LGU plans and CDP later;	Resource Management Committee as the lead (plus additional members)- can form TWG; Finance Committee will be in-charge of funding support	First Q for the formation of core group and work schedule including counterparting arrangement; First Q to 3rd Q for the plan updating; Last Q for the updating of business plan;	B+WISER and DENR for TA on PA plan updating and business plan revision; B+WISER to support planning capability- building workshops; Individual LGUs to rotate in sponsoring venue and food for consultation/s mall workshops and field validation; Province to form part of the core group, including venue; EDC for possible support for consultation activities or workshops;	Updated PA management plan; New business plan

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/ recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
8. Regular Work Plan (Annual WFP) (76%)	AWP plan is being prepared by the PASU office is anchored on activities found in the management plan, aprroved by DENR region planning office; DENR region sets the target and potential activities which can be funded; PAMB participation constrained by need for timeliness and process at DENR (of the regions getting priority activities for funding)		PAMB to take substative role in the preparation of the AWFP (including the five year plan); PAMB to input in the AWFP preparation a quarter before the DENR workplanning. in the 3 <sup>rd</sup> quarter Continue LGU counterparting practice Update the PAMB operations manual	BWISER to provide orientation and TA in the preparation of the operations manual	PASU to calendar this in the agenda for the first quarter PAMB en banc meeting, including the selection of members who will prepare	First Q for the preparation of the PAMB Operations Manual and Second Quarter for the Approval of this Manual Starting 2015 AWFP for improved process of AWFP preparation	Improved process for AWFP preparation and PAMB operations manual updating
9. Resource Inventory (57%)	BMS information not sufficient for biodiversity conservation planning and decision-making		Sustain Biodiversity assessment and monitoring using BMS enhanced by info on HCVA and SMART/LAWIN Retrain additional persons for BMS	DENR BMS Specialist as in- charge B+WISER on training on enahnced BMS using SMART/LAWIN	4 <sup>th</sup> Q for the BMS/SMART/LAWIN training 3 Q for the IPAF proposal (SMART/LAWIN budget)	Budget	Training on LAWIN/SMAR T Proposal for IPAF funding of LAWIN/SMAR T operationalizati

Issues/ Gaps	recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
		(SMART Lawin included) Explore possible support for SMART/LAWIN/BMS (EDC, University of Saint La Salle, Rotary Club, private sector, etc.); Include the budgetary requirement in the work and financial plan for IPAF accession	PASU on work and financial plan for IPAF funding; (As early as 2015- BWISER to input the requirements for SMART/ LAWIN)			on
Apprehensions being recorded but not processed	There are KGBs that help in the protection of the PA	Link protection system with improved ELE (to include also for fire protection and disaster response and regulation of open access and uses of and access to the PA)	PAMB, PASU	Starting 2015	Budget	Improved protection system
Normally the researchers secure GP from BMB who then refer it to the PAWZCM	PAMB resource committee deliberates this and refer to en banc for approval	Resource management committee to proactively identify areas for research that will input in adaptive management and sustain the implementation of rules for conduct of research and responsibilities of researchers; Explore local academic and research institutions (local and outsiders)	Resource management committee	First to second Q		Research agenda identified and implemented and inputs into improved PA management
	Normally the researchers secure GP from BMB who then refer it to the	Apprehensions being recorded but not processedThere are KGBs that help in the protection of the PANormally the researchers secure GP from BMB who then refer it to the PAWZCMPAMB resource committee deliberates this and refer to en banc for	Apprehensions being recorded but not processedThere are KGBs that help in the protection of the PACiscolar Sint Lawin included) Explore possible support for SMART/LAWIN/BMS (EDC, University of Saint La Salle, Rotary Club, private sector, etc.);Apprehensions being recorded but not processedThere are KGBs that help in the protection of the PALink protection system with improved ELE (to include also for fire protection and disaster response and regulation of open access and uses of and access to the PA)Normally the refer it to the PAWZCMPAMB resource committee deliberates this and refer to en banc for approvalResource management conduct of research that will input in adaptive management and sustain the implementation of rules for conduct of research and responsibilities of researchers;	Apprehensions being recorded but not processedThere are KGBs that help in the protection of the PACiscolar ciscolar the PAPASU on work and financial plan for IPAF funding; (As early as 2015- BWISER to input the requirement in the work and financial plan for IPAF accessionPASU on work and financial plan for IPAF funding; (As early as 2015- BWISER to input the requirement in the work and financial plan for IPAF accessionPASU on work and financial plan for IPAF funding; (As early as 2015- BWISER to input the requirements for SMART/ LAWIN)Normally the researchers secure GP from BMB who then refer it to the PAWZCMPAMB resource committee deliberates this and refer to en banc for approvalResource management committee to proactively identify areas for research that will input in adaptive management and sustain the implementation of rules for conduct of research and responsibilities of researchers;Resource management adaptive management and research institutions (local and outsiders) which can helpResource management 	Apprehensions being recorded but not processedThere are KGBs that help in the protection of the PAClub, private sector, etc.);PASU on work and financial plan for IPAF funding;PASU on work and financial plan for IPAF funding;Apprehensions being recorded but not processedThere are KGBs that help in the protection of the PALink protection system with improved ELE (to include also for fre protection and disaster response and regulation of open access and uses of and access to the PAPAMB, PASUStarting 2015Normally the refer it to the PAWZCMPAMB resource committee deliberates this and refer to en banc for approvalPAMB research that will input in adaptive management and sustain the implementation of rules for conduct of research and responsibilities of researchers;Resource management and responsibilities of researchers;First to second QNormally the refer it to the paprovalPAMB research that will input in adaptive management and responsibilities of researchers;Resource management and responsibilities of researchers;First to second Q	Apprehensions being recorded but not processedThere are KGBs that help include the budgetary requirement in the work and financial plan for it.)PASU on work and financial plan for IPAF funding; (As early as 2015- BWISER to input the requirements for SMART7/ LAWIN)Apprehensions being recorded but not processedThere are KGBs that help include also for fire protection of the PAThere are kGBs that help include also for fire protection and disaster response and regulation of open access and uses of and access to the PA)PAMB, PASUStarting 2015BudgetNormally the research that will input in and refer to en banc for approvalPAMB research that will input in adaptive management and refer to en banc for approvalResource research that will input in adaptive management and research and research and research in stitutions (local and outsiders) which can helpResource management committeeFirst to second Q committeeViscore (Cold and outsiders) which can helpExplore local academic and research institutions (local and outsiders)Resource management committeeFirst to second Q

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/ recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
12. Resource management (57%)	No updated information on the presence of spotted deer in MKNP- species management and monitoring; There was sighting before but the BMS is not able to monitor spotted dear, bleeding heart pigeon,		Establish additional plot for BMS; Use the B+WISER's ecological assessment results for adaptive management (linked to the PA management plan); Include resource management in PA budget to be funded out of the IPAF	Resource Management Committee	Starting 2015	Budget	Improved resource management
13. Staff numbers (58%)	Number of staff is below the minimum requirement; Existing: 7 regular (designated PASU who is concurrent PENRO, biologist, forest protection, finance, 2 law enforcement (1 forest guard, 1 forest guard, 1 forester 1); Officially deputized Kanlaon Green Brigdae- 225	IPAF collection is close to 5 million, plans to access 2.4 million	Hire additional staff (Ecotourism) using funds from IPAF; See notes from yesterday	PAMB, PASU	Starting 2015		Additional staff hired

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/ recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
14. Staff training (47%)	Inadequate training; Need special training on biodiversity monitoring		PASU to have staff trained on key aspects of PA management and daily operations (e.g., M&E, budget preparation, workplan preparation, leveraging, IEC, park management)	PAMB, PASU	B+WISER to provide training asssitance on areas of interest to the program		Needed training implemented
15. Current budget (51%)	Lacks budget for protection, filing of cases and other legal assistance; No budget for BMS training; Needs additional support for allowance and incentives of volunteers including health insurance, uniform, etc.		LGUs to allocate from their 10% IRA, budget for PA management; PAMB to issue resolution requesting the LGUs to allocate from IRA	LGUs; Finance Committee to draft and issue the resolution	1 <sup>st</sup> Q for the resolution		Resolution
17. Management of budget (60%)	There is a need to strengthen the system for budget management (for IPAF funds, follow the RA 10629 IRR)		PAMB operations manual to include this topic; Practice efficiency, effectiveness and accountability in the system of budget management	Finance Committee	Starting 2015		Improved system for budgeting

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/ recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
18. Equipment (53%)	Identified need: Guns; Mobilization and additional motorcycles, 1 unit per barangay to cover (15) barangays; Protective gears for staff (PPE) Firefighting equipment; Chopper for inaccessible areas prone to fire Absence of strategy for firefighting at the village level	Existing equipment; KGV has one hand held radio for four stations; Ordinary camera- 3; Two stationary base, 2 mobile base, has one repeater, one relay; There is another one proposed relay station and one handheld radio	Explore the use of chopper for patrolling, etc.; Explore possible sources of assistance for the procurement of the identified equipment (with implications on need for capability- building on proposal preparation and leveraging); Include in the workplan for IPAF accession; Include as topic for resolution (LGU allocation out of their budget for equipment)	Finance Committee	Starting 2015	Budget from IPAF and leveraging activities	Key equipment procured
19. Maintenance of equipment (57%)		Maintenance of communication s equipment part of warranty	Allot budget for maintenance of equipment in annual work plan	PAMB Finance Committee	Starting 2015		Improved system for equipment maintenance

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/ recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
20. Education and awareness (58%)		KGBs conduct IEC to community	Sustain the practice of KGB providing assistance in IEC conduct; IEC to include topics relate d to threats reduction, awareness of laws and prohibited activities within the PA	PAMB	Starting 2015	B+WISER to provide TA on communiction planning and implemen- tation	Improved IEC
21. Planning for adjacent land and water use (54%)	Currently the LGUs have their CLUPs which need to be updated based on HLURB guidelines		Integration of updated PA management plan with LGU plans (CLUP, CDP), including the allocation plan per LGU for areas situated within the PA considering the HCVAs	PAMB, DENR- PASU	Plan integration starting 4th Q	B+WISER to provide TA/training in plan integration and allocation	Enhanced LGU CLUPs
22. State and commercial neighbors (46%)	Sugarcane plantations, water district, agricultural plantations concerns outside the PA		Through a PAMB resolution gradually phase out sugarcane plantion within the PA; Inventory users of PA resources within the adjacent areas/outside of the PA; Study how to link/collaborate with users outside the PA to ensure compatibility, reduction of threats and application of PES	PAMB, DENR; Resource management committee as the lead	Starting 2015	Budget	MOAs, partnership agreements with outside users of PA resources

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/ recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
23. Indigenous people (58%)	IP was involved in charcoal making violations (case filed); No tenurial instrumet t for these IPs but one group has already applied for PACBARMA; The two IP groups (recognized as ICCs by NCIP are active in PAMB; The two groups are in conflict with each other (one group opposes PACBARMA and wants CADT over the park);		DENR to process the PACBARMA application of one IP group (presently on hold because of the confoict with EO 23); Conduct PA activties (planning) with participation from the IPs (implications on capability-building for them); DENR to continue effort to include the IP group in its NGP program	PAMB and PASU Office	Starting 2015		Better partnership with IPs in PA management
24. Local communities (71%)	Both tenured and non-tenured communities are farming within the PA, even within the SPZ there is farming; There is observation that game fowl farming has minimized illegal activities		Gradually phase out farming within the SPZ Regulate farming activities within the MUZ through zoning and PAMB resultions and LGU support ordinances Strengthen linkage with DA on sustainable farming practices	PAMB, PASU, LGUs	Starting 2015		Local communities are practicing sustainable livelihood, Damaging livelihood activies mitigated and gradually phased out

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/ recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
	(commercial vs small-scale breeding) DA has a project on coffee farming						
25. Economic benefits (74%)	Existing household-level program in 15 barangays (goat, duck, animal raising) in contained areas (DA program) There are trained guides, homestay program in Guintobdan, Ara- al for 4-5 households		Generate sustainable, alternative livelihood actvities that are compatible with PA management and within a designated zone; Identify, regulate and gradually phase out environmentally damaging activities; Enhance ecotourism- based livelihood	PAMB and LGUs	2015	Funding for livelihood	Alternative livehood implemented
26. Monitoring and evaluation (47%)	Need data processing and analysis (data- base); DENR PAWZCM has an existing system for monitoring but mobilized on a per need basis		Include M and E in updated PA management plan (data to be collected, who will collect, frequency, and use of data in adaptive management); Practice adaptive management in all asoects of PA management	2 <sup>nd</sup> Q	PAMB and PASU		M&E established
27. Visitor facilities (56%)	La Carlota has stand-by rescue team for safety of tourists and occupants Province has a		PAMB to forge MOA with Bago, La Carlota and Kanlaon on ecotourism activities	DENR to provide training for KGB on fire fighting	Starting 2015		Plan in place and implemented to enhance the safety of tourists (and

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/ recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
	contingency plan for volcanic eruption, flooding, typhoon and other disasters, including restoration, rehabilitation, wildlife rescue in relaition to vulcanic erosion, individual LGUs down to the barangay level have their own DRRM officer and plan; There is a visitor information center and viewing deck, in place regulations concerning mountaneering including fees and on porters and guides		Make use of the LGU DRRM plan and system; Train and include in the responsibilities of KGB fire prevention, control and response; Create additional viewing deck; Consolidate tourism plans of LGUs at PA level as basis for the creation and implementation of Ecotourism Business Plan;				PA occupants)
28. Commercial tourism operators (57%)	There is existing linkage with province tourism office; There is also a facebook account There are tour operators from		Need to enhance marketing of ecotourism activities wth help of tourist operators within Negros Island and outside operators; Create additional products that can be	Ecotourism Commitee	Starting 2015	Budget for implementatio n	Marketing strategy formulated and implemented

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/ recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
	Negros Oriental (Cebu); Existing products are: trekking and swimming		marketed successfully (e.g., canopy walk, bird watching in Wasay and Mailum)				
29. Fees (57%)	There is proposed piloting of users fee for Bago City water user, money collected will plow back for the maangement of the two Pas; Fees collected from ecotourism (trekking)		Establishment of users fees for water users; to form part of IPAF; Continue the piloting of waters users fee for Bago City with potential replication of the process in the other sites	Finance Committee as the lead	Starting 2015		Water User Fee established and generating funds for IPAF
30. Condition of values (69%)			Link the monitoring of condition of PA socioeconomic, biological and cultural values to overall PA M&E (as found in the enhanced management plan)				

## 7. MKRNP DRAFT ACTION PLAN FOR IMPROVING MANAGEMENT EFFECTIVENESS

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
1. Legal Status (100%)		Declared as PA pursuant to RA 8978 Mt. Kitanglad Act					
	No regulations on cuttings of trees within the buffer zone; No study on carrying capacity on ecotourism, water use, and facilities (e.g., telecom facilities situated within the summit); There is PAMB resolution and barangay ordinance on "no contour-no- assistance", but not all barangays are adopting this; There is water source conflict in Kulasihan (Imbayaw)		Pass and implement a unified LGU ordinances on areas of common concerns including provincial and city ordinances consistent with the national laws; Coordination with DENR to monitor ECC compliance of companies with facilities, and regular monitoring of ECC conditions; DENR to ensure that permits and other documentation requirements are complied with before issuance of ECC; Strictly follow the public participation requirement in the issuance of ECC				
			of projects, and for PAMB to ensure that issuance of water application rights has prior coordination and approval by LGUs Regular coordination and				
			communication between				

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
			PAMB and LGUs/users of water to avoid conflicts on water use;				
			All water users to have a dialogue on sharing of fees and clarification of issues pertaining to water rights issuance;				
			Brgy. Kaatoan to issue a resolution requesting the PAMB to include them in revenue sharing;				
			Continue the practice of dialogue and negotiations;				
			Pass additional regulations on allowed activities in the PA (carrying capacity updating, prohibition on selling of lands within the PA, moratorium on tree cutting inside the PA);				
			Develop a program for climate change and disaster risk reduction;				
			Adopt and implement PAMB resolution and LGU municipal, city, brgy and tribal ordinance on the protection of				

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
			Rafflesia and Philippine Eagle and other locally endemic species				
3. Law enforcement (73%)	Not enough personnel/manpower; PA law enforcement staff augmented by the KGV but they receive a very meagre honorarium and lacks incentives; Insufficient budget for the protection activities	There are 18 KGVs/brgy or about 344 KGVs in 8 municipalities; Some military, PNP and KGV are trained on forest protection, Wildlife Enforcement Officers DENRO/SDENRO; KGVs in Malaybalay receives 10,000 Php honorarium/brgy/month, for other municipalities 5000/month; All KGVs in all brgys have group insurance; Lantapan KGVs have GPS; KGVs situated within entry points receives a share from ecotourism fees; KGVs are all deputized as DENRO and PASu staff deputized as WEO; Council of elders unlike other groups have no secured funding source and support;	Continue/strengthen linkage with military & PNP and coordination with other enforcement agencies Assign KGVs for non- critical cases; Provide more incentives for KGVs; Budget for staff and logistic supports both from the national agencies and LGUs and other line agencies for project implementation and enforcements; Prioritize LGU support for incentives and logistics for KGVs (raincoat, rain boots, flashlights, uniform); Training for KGVs (e.g., basic para-legal training, livelihood) Incentives for KGVs should include livelihood support;				

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
		Tribal guards implements customary laws;	Prioritize KGV in the NGP program; Inventory the support given to KGVs in all municipalities; Sustain tie-up with municipal and provincial anti-illegal logging task force; Explore how the council of elders and tribal guards and Balagad Hu Kabunturan be supported financially, logistically including livelihood support				
4. PA objectives (76%)	There is a need assess the responsiveness of PA plans & programs in relation the conservation of the PA at the same time providing sustainable and non-destructive livelihood opportunities to the IPs		Review and evaluate the current PA design and objectives in updating of PA management plan				
5. PA design (87%)	Need to implement climate change mitigation and disaster risk reduction strategies There are yet culturally significant areas that are not documented and recognize in the Mt.		Require all members of the council of elders to submit sketch maps and description of their respective cultural zones per Barangay; GPS survey may be done to know specific				

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
	Kitanglad map & plan		sites				
6. Protected area boundary demarcation (83%)	Need for more demarcation signs	DENR has budget and on- going initiative on monument augmentation;	Communicate boundaries to constituents;				
		There are billboards about PA boundaries but need augmentation	Augment BZ monument and billboards; Maintain clear demarcation				
7. Management plan (88%)	No manual of operations but MKRNP has a handbook as a guide	CADT holders have their own ADSDPP and input in PA management as PAMB members	Develop an operation & enforcement manual for review and updating every 5 years; Study the proper allocation of rights and responsibilities over the uses and management of the PA and incorporate in the				
8. Regular Work Plan (Annual WFP) (77%)	Late release of funding from LGUs (funds diverted) Ecotourism program cannot be fully implemented for lack of funds; No unified annual work and financial plan for the whole MKRNP	PA has an overall AWP for DENR funding, there is also an individual AWP for LGUs being prepared by the PAMB secretary for funding and approval by respective mayors; DENR has a separate Work and financial plan;	management plan Use management plan as basis for the preparation of annual work and financial plan; Strengthen the participation of the PAMB members in the drafting of the AWP; Identify funding gap and				
		Entire KGV for Kitanglad is already registered to the Securities and Exchange	leveraging for additional support;				

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
		Commission (SEC) but KGVs of each municipalities should also register to SEC to be able to be accredited by the municipal development council and be able to access more support	Support Municipal KGVs registration to SEC and accreditation to the Municipal Development Council				
9. Resource Inventory (59%)	Data available mostly for lowland; limited for mid &montane There should be more info on status of species and ecology Limited information	Sustained conduct of BMS and its results are being used as input for PA management KGVs conduct the BMS and prepares monthly report; PASU staff consolidates the BMS result; Present BMS cover the HCVAs; Additional BMS sites were established this year but needs to cover more	Cover more BMS sites; Upgrade BMS to BMS 2 and implement SMART Lawin	B+WISER to provide support in the conduct and implementation of SMART Lawin			
10. Protection systems (77%)	In some communities, tribal leaders are by-pass by climbers who only secure permit from PASu office Climbers should be fully checked at exit areas by the tribal guards/KGV	Implementing SALT-Sloping Agri Land Technology project; Boardwalk constructed to prevent stepping over the buds of rafflesia; KGVs conduct monitoring and prepare monthly monitoring report as basis for monitoring; Monitoring report approved by the brgy captain	Strengthen the coordination between the PAMB, PASU and tribal leaders pertaining to protection, ecotourism and other pertinent activities within the PA; Data analysis (trend) of violations; Continue the practice of construction of fire line/ fire break/protection	Bureau of fire protection			

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
		<b>Note:</b> IAS- there is buyo- buyo in adjoining areas	Sustain the KGVs monitoring of fire and fire hazards;				
			Prepare a fire contingency plan				
11. Research (76%)	Valuation study in 1998 needs to be updated The researchers did not provide copy of the result of their study;		Update researches on carrying capacity; fees (valuation studies), medicinal plants Hydrological assessment;				
	No management oriented survey and research in the PA		Establish formal linkage with academic institution regarding research on ecology and management of Rafflesia, wood cock, tarsier and other locally endemic species;	CMU and other research and academic institutions for the research;			
			Installation of additional billboards about habitat and protection of Rafflesia, wood cock, tarsier and other locally endemic species	Research committee of PAMB as overall in-charge for research			
12. Resource management (74%)	Financial support needed to perform rituals	Ecological assessment completed with B+WISER support, results of this can be used in updating the PA management plan and resource management	Formulate policies on PES Conduct values formation for IPs and PAMB members;				
			Conduct related training on utilization of new technology on PA				

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
			management; Resource users to pay payment for ecological services				
13. Staff numbers (71%)	Need additional PASu personnel, PASU staff inadequate At present MKRNP has 5 regular, 19 JO but mostly non-technical, Note: Total number depends on yearly budget • 344 functional KGVs, • Designated PASu (fulltime)	PASu staff deputized as WEO; Currently, there are only 4 DENR desk officers deployed in 8 LGUs. This used to be 8 (1 DENR staff/LGU); <b>Notes:</b> PAMB has 13 committees, each committee is being activated as need arises	Increase revenue generation to hire additional staff (staff like mapping staff and additional technical staff, KGVs); Source out more funds to augment the allowances of KGVs; Hire an IP staff to serve as liaison officer for IP concerns; Continue deployment of 1 desk officer per LGU to serve as counter ego of the PASU;				
			Submit PAMB resolution to BMB appealing for the designation of DENR desk officer including the results of this assessment and action planning	2 <sup>nd</sup> week of Dec 2014			
14. Staff training (74%)	New MENRO needs training to be more effective both technical and (administerial) management		Training on first aid and visitors handling and management, ecological awareness and laws/regulations;				

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
	Staff have training but needs to be trained more on new concepts & technology		Conduct values formation for IPs and PAMB members including porters and guides;				
			Conduct related training on utilization of new technology on PA management, ENR ordinance formulation, Climate Change Adaptation and Disaster Risk Reduction, etc.				
15. Current budget (67%)	Available funds needs to be increased to be sufficient; Budget depends/comes from incumbent LGU/Province and congressional support	Provincial Government provides 3M/year budget for KGVs in 2011-2013, 7M from Cong. Paras (augmentation, monuments, etc.)	Sustainable financing; Increase revenues from fees and upgrade fee schedule on resource utilization;; Implementation of PES;				
			Collect fee for damage; Leverage for other funding support;				
			Training on project proposal preparation;				
			B+WISER to continue assistance to strengthen the committee on ecotourism, water				

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
			resources management, finance and ways and means				
17. Management of budget (65%)	Needs improvement to address needs		Continue to implement all activities in the approved WFP;				
			Ensure that budget are allocated to priority activities and ensure transparency, accountability, efficiency and participation in budget allocation				
18. Equipment (58%)	Limited equipment Old buildings need rehabilitation; Motorbikes are old enough that incur big maintenance;		Acquire spotting scope, communication (CPs, camera) for BMS GIS map (updates & accuracy); Diorama for visitors information center;		Budget		
	Lacks communication & documentation equipment for BMS Needs training on equipment and technical assistance for monitoring & mapping of current BMS		Rehabilitation of the old historical buildings; Develop concept proposal for the rehabilitation of old historical buildings with support from pertinent government agencies, stakeholders and corporate entities (e.g., adopt an old building fund raising activities);	Financing and Ways and means committee			

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps Seek assistance for other identified gaps (ex. Training, equipment and vehicle)	Who will do?	Time Frame	Resources needed including partnership	Milestones
19. Maintenance of equipment (62%)	Need vehicles maintenance; Need knowledge in handling depreciation; High maintenance due old equipment model; Existing equipment are provided with minimal maintenance; No available funds to purchase new vehicle		Budget for maintenance/ replacement; Replacement of vehicles that are no longer effective to be maintained; Repair of equipment and facilities especially on communication facilities and old motorized vehicles; Needs augmentation funds for maintenance of transport vehicles				
20. Education and awareness (62%)	Need to strengthen IEC (Research & education committee, Annual Kitanglad Congress, regular Dalaw-Turo); Need to augment funds for IEC; Some local farmer living far from brgy. proper do not attend barangay assembly	Dalaw Turo conducted in 3 school; There is a video on Aldaw ta Kitanglad regarding forest protection	Continue IEC, engineering and enforcement support; Explore partnership with the YES program of DepEd;; Strengthen role of KGVs on the conduct of IEC; Develop other ways of IEC/communication				

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
			material to catch attention of the public (e.g., video production);				
			Focus IEC on the erosion of IP values and selling of rights	Research and Education committee	3 <sup>rd</sup> quarter of 2015		
			Training on development and implementation of a communication program for the whole Kitanglad identifying the messages and vehicle for communication including the resources needed	Tap DSWD in the conduct of values formation training for IPS, PAMB members and other PA occupants and stakeholders			
			(Tap TV and radio network)				
			Continue IEC among BZ occupants				
21. Planning for adjacent land and water use (70%)		There is an ongoing ridge to reef enter operability/connectivity being pursued by the PA;	Adopt and implement ridge to reef connectivity; Speedy implementation				
		LGUs in the process of updating CLUP;	of ridge to reef approach Prepare/update list of small land scale farmers;				
		Every municipalities has Barangay Watershed management council;	Implement PES for water users from A & D lands;				
		There is WMC in Dahilayan, Kalugmanan, Lindaban	Integrate updated PA plan with LGU plans (e.g., enhanced CLUP);				

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
		INREM prepares a lot of plans at the moment; DENR conducts a watershed characterization	Study the practice of Sankanan Farmers Irrigators Association for possible replication in other areas Conduct water forum among water users and other stakeholders; Develop PES mechanism for Bukidonon LGU and Provincial Government of Misamis Oriental, CDO City; Continue partnership				
22. State and commercial neighbors (68%)	No MOA with corporation	MOA with users at the lower stream located on A & D area	between INREM and LGUs Frequent contact with water users for updates and evaluation and adjustments for user's fees				
23. Indigenous people (73%)	Most IP representatives in the PAMB participate in decision making based on their traditional/cultural concerns. However, they don't have the chance/time to consult first their members before attending PAMB meetings Degradation of culture	All municipalities and brgys have IP representatives who are members of KGVs	Enhance the quality of IP participation on PA management; Involvement of women and youth IPs in the implementation of PA activities; Documentation and implementation of IPs customary laws and practices and to be	KIN and Chair of Mt. Kitanglad Council of Elders for the			

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
			supported by ordinances and PAMB resolutions; Profiling of cultural practices Follow up B+WISER assistance on the documentation	documentation B+WISER to assist in the documentation			
24. Local communities (73%)	Needs improvement on local community participation		Increase participation of local community especially on livelihood implementation, law enforcement and forest protection; Completion of SRPAO as basis for issuance of PACBRMA and identification of strategies to make community as partners in PA management				
25. Economic benefits (62%)		NGP prioritizes KGV members who are mostly IPS; PASu submitted list of KGVs to DSWD for possible selection/ membership in conditional cash transfer;	Identification and generation of additional alternative livelihood support; Enhance ability to generate revenues and include more stakeholders in the benefit sharing;	2015 Ways and Means Committee and resource management committee			
		PASu staff have records of amount of shares from the fees given the entry point areas (Dalwangan, Intavas,	Prioritize local communities in trainings and provision for porters and tour guiding	Committee			

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
		<ul> <li>Bulugan);</li> <li>Stakeholders fees are put in the trust fund/national treasury;</li> <li>980 Php was accessed in 2013;</li> <li>Mt. Kitanglad Agri Venture (MKAV) provided 9,000 for Kaatoan as additional honorarium for KGV</li> </ul>	activities;Provide training and accreditation for additional porters/guide including cultural training;Porters and guides should be trained on cultural values Identify training, skills building activity for IP women and youth to enhance their economic contribution;Explore other possible assistance on livelihood and training for communities;			partnersnip	
26. Monitoring		There is regular BMS being	Survey documentation of cultural and ecological practices related to food security and livelihood for IPs and other PA occupants Frequent monitoring of				
and evaluation (68%)		conducted	biodiversity projects; A need to establish additional BMS sites esp. in hot spot areas; Incorporate this need in updating of the				

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
27. Visitor facilities (52%)	Visitor's facilities are inadequate; 1998 a climber was electrified from the transmission lines; A need to improve the existing road going to the park to encourage more visitors; Needs for town guide & proper signage	2 or 3 years ago there was an ecotourism plan for MKRNP (Dalwangan, Malaybalay, Intavas, Impasug-ong)	<ul> <li>management plan;</li> <li>Explore the possibility of including night birds watching in ecotourism (Takdaw, Bahaw);</li> <li>Include nocturnal animals and night birds in BMS;</li> <li>See notes on BMS and monitoring needs;</li> <li>Establish CR, trails, accommodation facilities Updating of existing ecotourism plan considering the HCVA results, damage fees and other development Improvement of existing road going to the park;</li> <li>Conduct training on safety and first aid;</li> <li>Identify the needed cultural and ecological services;</li> <li>Strengthen visitors information center</li> </ul>				
28. Commercial tourism operators (29%)	Limited cooperation extended by the ecotourism operators		safeguards Explore tie ups with locals and outside operators, including foreign, commercial tour				

Criteria/ Score	Weaknesses/ Issues/ Gaps	Current/recent actions and by whom?	Suggested Adaptive Mgt. Actions/ Next Steps	Who will do?	Time Frame	Resources needed including partnership	Milestones
			operators and association (ex. Bird watching association)				
29. Fees (56%)	Up to now, no share from IPAF goes back to the PA since 1996;		Urge DBM to simplify requirements for PA to avail IPAF fund;				
	IPAF is very hard to access		Retention IPAF fund;				
	Needs further studies in increase fee collection		Sustainable financing Increase revenues from fees and upgrade fee schedule on resource utilization;				
			Implementation of PES;				
			Collect fee for damage;				
			Leverage for other funding support				
30. Condition of values (43%)	Disintegration of IP culture; Lack of profiling and documentation of IP culture and practices		Implement community profiling				
Additional Info on SAPA, other agreements for commercial use	No information	1 CADT approved in Mt. Kitanglad Bukidnon Tribe in Palwangan, Malaybalay City; CBFM is transformed to PACBRMA; Water permit issued to users, there is also an agreement with Kitanglad Summit Communications and cell site towers					

Evaluation Criteria (% Score)	Weaknesses/Issues/Gaps	Suggested Next Steps (Plenary/Forms)
1) Legal Status	PA law (RA 9237) should be widely known/understood	• A primer on the law should be made both in English and Cebuano and posted in barangays, distributed to schools, parks etc.
2) PA regulation (69%)	<ul> <li>No consolidated list of policies and ordinances (new GMP provides the regulations)</li> <li>Trekking ordinance passed but not enforced</li> </ul>	<ul> <li>Integrate GMP to the CLUPs of LGUs especially the Zoning Plan and Ordinance for effective enforcement</li> <li>There must be evaluation on the regulations' efficiency and effectiveness</li> </ul>
3) Law enforcement (43%)	<ul> <li>All 8 PASU staff are now old</li> <li>Problems in mobility</li> <li>No enforcement plan</li> </ul>	<ul> <li>Additional funds and personnel</li> <li>Continue training and seminars</li> <li>Prepare enforcement plan</li> <li>Strengthen apprehension</li> <li>Improve/strengthen deputation</li> <li>Provide separate allotment</li> <li>Incorporate GMP into CLUP so that LGUs can enforce through zoning ordinance</li> </ul>
4) PA objectives (76%)	<ul> <li>Objectives not quantified</li> <li>WFP/yearly targets not presented to PAMB</li> <li>WFP is central office driven</li> <li>Limited budget (200-300 k)</li> </ul>	<ul> <li>Implement the GMP</li> <li>PAMB to input in WFP preparation</li> <li>Regular evaluation/ assessment</li> </ul>
5) PA design (73%)	<ul> <li>Very limited biological assessment</li> <li>MUZ chosen based on presence of farming and settlement; SPZ based on criteria set by law</li> </ul>	B+WISER to help conduct biodiversity assessment; integrate PA zoning in all LGUs' CLUPs
6) PA boundary demarcation (35%)	<ul> <li>People do not care about the demarcation</li> <li>Monuments in Makilala within titled lands</li> <li>Absence of GPS survey gives problem on accuracy</li> <li>Boundaries on paper accurate but erroneous on the ground</li> </ul>	<ul> <li>Fast track biodiversity assessment to determine accuracy of zoning (e.g., for conservation of Phil. Eagle)</li> <li>Install signages to make the boundaries visible</li> <li>Conduct participatory on- the- ground demarcation, prior IEC to explain the purpose</li> <li>Implement relocation before integration of GMP into CLUP</li> <li>Reinforce strip border planting</li> <li>Address the discrepancies in coordinates</li> </ul>

# 8. MANP DRAFT MANAGEMENT ACTION PLAN FOR IMPROVING MANAGEMENT EFFECTIVENESS

Evaluation Criteria (% Score)	Weaknesses/Issues/Gaps	Suggested Next Steps (Plenary/Forms)
7) PA boundary demarcation (35%)	<ul> <li>People do not care about the demarcation</li> <li>Monuments in Makilala within titled lands</li> <li>Absence of GPS survey gives problem on accuracy</li> </ul>	<ul> <li>Fast track biodiversity assessment to determine accuracy of zoning (e.g., for conservation of Phil. Eagle)</li> <li>Install signages to make the boundaries visible</li> <li>Conduct participatory on the ground demarcation, prior IEC to explain the purpose</li> <li>Implement relocation before integration of GMP into CLUP (boundaries on paper accurate but erroneous on the ground)</li> <li>Reinforce strip border planting</li> </ul>
8) Management Plan (70%)	New GMP just approved	<ul> <li>Implement the GMP</li> <li>Prepare and implement PAMB Operations Manual (include policy statements) and enforcement plan</li> </ul>
9) Regular Work (Plan (Annual WFP) (27%)	DENR-determined and part of over-all WFP of region	Prepare WFP for MANP
10) Resource inventory (44%)	<ul> <li>Limited (biodiversity assessment for Philippine eagle only)</li> <li>No systematic information system</li> <li>Not regularly updated</li> </ul>	<ul> <li>B+WISER to help conduct thorough biodiversity assessment</li> </ul>
11) Protection systems (27%)	<ul> <li>Rampant poaching, land conversion due to agriculture</li> <li>Violators easily escape</li> <li>Staff are trained but ineffective due to age</li> <li>LGUs have many initiatives even to the level of barangays, but PAMB has no direct role</li> <li>Some barangays (Magpet) and private sector (EDC) conduct law enforcement, but not coordinated at PA level</li> </ul>	<ul> <li>Additional manpower</li> <li>PAMB to work closely with LGU on PA protection</li> <li>All brgys/LGUs should be involved in enforcement</li> <li>People should be involved so that bad practices are frowned upon</li> </ul>
12) Research	<ul> <li>There is R&amp;D Committee but no R&amp;D agenda, researches done by different organizations but not used in PAMB decision-making</li> <li>Only those studies conducted by universities/private researchers</li> <li>Researches by private sector directed to PA use e.g., watershed characterization, carrying capacity</li> </ul>	<ul> <li>Identify research agenda for the PA</li> <li>Conduct carrying capacity studies</li> <li>Conduct research as basis for determining 7 point agenda</li> <li>B+WISER may be able to use results of watershed characterization and other studies of Kidapawan City Water District</li> <li>Need for all Water Districts to assess origin of water as input to PES</li> <li>Include researches on sustainable financing</li> </ul>

Evaluation Criteria (% Score)	Weaknesses/Issues/Gaps	Suggested Next Steps (Plenary/Forms)
13) Staff Number	PA has inadequate and ageing staff	<ul> <li>Involve LGUs in the implementation of the GMP and development of the PA</li> </ul>
14) Staff training	Little training on biodiversity assessment	LGU to play active part in PA management; involve MENROs in training
15) Current Budget	<ul> <li>Dependent on DENR, LGUs (including province, LGUs has budget for barangays within the PA), and private sector for resources</li> <li>IPAF not accessed due to tedious process, remains in the national treasury</li> </ul>	<ul> <li>B+WISER to assist in accessing IPAF; utilize the IFAP and make utilization transparent</li> <li>Determine how the PA can have a share of LGU collections on trekking/ecotourism</li> </ul>
16) Security of Budget	DENR and LGU-dependency with regard to budget	<ul> <li>Legislated PA allocation of each LGU at SB level to isolate PA environmental work from political intramurals</li> </ul>
17) Equipment	<ul> <li>Visitors Center needs repair and maintenance</li> <li>Lacks vehicle for mobility</li> <li>Need to improve communication</li> <li>Need to enhance accountability</li> </ul>	<ul> <li>Additional vehicles (e.g., motorcycles) for mobility</li> <li>Revive the radio communication system, appeal to EDC for repeater</li> <li>Needs GPS, telescope, compass, trekking equipment, cellphone load</li> <li>Improve accountability over equipment</li> <li>Partner with corporations/business community</li> </ul>
18) Maintenance of Equipment		Partnership with private companies
19) Education/ Awareness	<ul> <li>No unit assigned; taken by forest guards as part of their work-Dalaw Turo (RPAO, FMS, ERDS)</li> <li>Many existing initiatives which includes LGU radio program, development exposure of IPs, Adopt a Hectare, barangay service rendered by Forest Guards, but not coordinated at PA level</li> <li>Need to educate the barangay captains that will be newly elected</li> </ul>	<ul> <li>Provide regular allotment on IEC</li> <li>Use existing avenues like LGU radio program but translate materials into local dialects</li> <li>Make IEC people need centered (e.g., water) as biodiversity is not understood by locals</li> <li>Conduct education/awareness forum among colleges/universities</li> <li>Besides awareness on ecosystem values, there should be levelling off between DENR, NCIP and LGU about how they will co-manage Include climate change</li> </ul>
20) Visitors Facilities	<ul> <li>Seven entry points in seven municipalities</li> <li>Hotels/shelters for tourists/trekkers are found outside the</li> </ul>	Need to improve visitors facilities, including visitor center

Evaluation Criteria (% Score)	Weaknesses/Issues/Gaps	Suggested Next Steps (Plenary/Forms)
	<ul><li>PA, however, they set up temporary camps</li><li>No inventory of facilities</li></ul>	<ul> <li>LGU to help provide funds</li> <li>Unify the trekking policies for all trails and replicate best practices</li> <li>Install signages</li> <li>Monitor safety of visitors</li> </ul>
21) Planning for adjacent land and water use	<ul> <li>Forest land use plans not incorporated in LGU CLUPs</li> <li>Ongoing integration process of GMP in CLUPS of all LGUs</li> </ul>	<ul> <li>Get HEDCOR on board just like PNOC and EDC</li> <li>Follow the HLURB guidelines for integration (to be approved in 2013)</li> </ul>
22) State and Commercial Neighbors	There are entities without MOA yet with the PA	<ul> <li>Have MOA with water districts of Digos and Bansalan</li> <li>Conduct inventory of water rights and users</li> </ul>
23) Economic Benefits	<ul> <li>Employment opportunities are being generated by banana plantations, need to explore more benefits to communities</li> </ul>	Need for PA to generate more     employment/livelihood opportunities
24) Research	<ul> <li>There are ongoing ERDS researches, e.g., Effect of climate change on migratory birds (Asst PASu Leo Capon)</li> <li>According to DAP, there are researches that have been done but not disseminated. It was presented during PAMB meeting, but no research need was identified. There is no binding agreement that this should be reported/ disseminated (Provincial office).</li> <li>The WFP was done by MBCFI and researches were identified</li> </ul>	<ul> <li>It is good to identify research needs. The researcher should be able to disseminate the results to PAMB</li> </ul>
25) Additional Info on SAPA, other agreements for commercial use	<ul> <li>SAPA suspended, but has MOA with water districts, HEDCOR, etc.</li> <li>Who will decide on these? Resource Committee or PAMB embank or LGUs?</li> <li>What to do with land tenure disputes?</li> </ul>	<ul> <li>Need to enhance agreements</li> <li>Formulate clear Operations Plan with regard to resource use</li> <li>Set up dispute resolution guidelines to avoid conflicts</li> <li>Coordinate with DA on economic development activities</li> <li>Spell out procedure in decision making for development projects/activities</li> <li>Approach should be PACBRMA, but need to organize communities</li> </ul>

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