

**NATURAL RESOURCES GOVERNANCE:  
WAY FORWARD ACTION PLAN**

Part II of II

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in the Philippines**

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## Table of Contents

	Page
Acronyms and Abbreviations	
Executive Summary	
Chapter 1. Building on the NRM Governance Study	
Chapter 2. Basis for Moving Forward	
Chapter 3. Prioritization in Addressing Core NRM Issues	
<b>Annexes</b>	
Annex 1. Implementing the National Integrated Protected Area System (NIPAS) Law: A Glance at the Implementation and Governance	
Annex 2. Actions to be Taken Per Sub-sector, Prioritized by Time Horizon	
Annex 3. List of References	
<b>Figures</b>	
Figure 1. Presidential Decree 705 and Related Laws and Executive Orders on Forestland Management	
Figure 2. Coverage of Various Management Instruments and Regimes	

## Acronyms and Abbreviations

AO	Administrative Order
BFAR	Bureau of Fisheries and Aquatic Resources
CADC	Certificate of Ancestral Domain Claim
CADT	Certificate of Ancestral Domain Title
CALC	Certificate of Ancestral Land Claim
CARP	Comprehensive Agrarian Reform Program
CBD	Convention on Biodiversity
CBFM	Community-Based Forest Management
CBFMA	Community-Based Forest Management Agreement
CBRMP	Community-Based Resource Management Project
CENRO	Community Environment and Natural Resource Office
CFMA	Community Forest Management Agreement
CFP	Community Forestry Program
CITES	Convention on the International Trade in Endangered Species
CLUP	Comprehensive Land Use Plan
CMMO	Coastal and Marine Management Office
CO	Certificate of Origin
CPAs	Conservation Priority Areas
CPPAP	Conservation of Priority Protected Areas Project
CRM	Coastal Resources Management
CRMP	Community Resource Management Program
CZM	Coastal Zone Management
CZMA	Coastal Zone Management Act
DA	Department of Agriculture
DANIDA	Danish International Development Agency
DAO	Department Administrative Order
DAR	Department of Agrarian Reform
DBM	Department of Budget and Management
DENR	Department of Environment and Natural Resources
DepEd	Department of Education
DILG	Department of Interior and Local Government
DoF	Department of Finance
DOH	Department of Health
DOJ	Department of Justice
DOST	Department of Science and Technology
DOT	Department of Tourism
DPWH	Department of Public Works and Highways
DSWD	Department of Social Welfare and Development
DTI	Department of Trade and Industry
ECC	Environment Compliance Certificate
EE	Environmental Examination
EIO	Environmental Impact Office
EIS	Environmental Impact Statement
EMB	Environmental Management Board
ENRM	Environment and Natural Resources Management
EO	Executive Order
FAO	Food and Agriculture Organization
FARMC	Fisheries and Aquatic Resources Management Council
FLGMA	Forest Land Grazing Management Agreement
FMB	Forest Management Bureau

FTAA	Financial and Technical Assistance Agreements
GEF	Global Environment Facility
GMO	Genetically Modified Organism
GOP	Government of the Philippines
GUs	Government Units
IEC	Information, Education and Communication
IFMA	Industrial Forest Management Agreement
IP	Indigenous People
IPAF	Integrated Protected Area Fund
IPAS	Integrated Protected Area System
IPRA	Indigenous Peoples' Rights Act
IRA	Internal Revenue Allotment
IRR	Implementing Rules and Regulations
ISF	Integrated Social Forestry
IWM	Integrated Watershed Management
LEDAC	Legislative Executive Development Advisory Council
LGC	Local Government Code
LGUs	Local Government Units
LISCOP	Laguna de Bay Institutional Strengthening and Community Participation
LLDA	Laguna Lake Development Authority
M & E	Monitoring and Evaluation
MFO	Major Final Output
MOA	Memorandum of Agreement
MOOE	Maintenance and Other Operating Expense
MPSA	Mineral Production-Sharing Agreement
MTPDP	Medium-Term Philippine Development Plan
NAMRIA	National Mapping and Resource Information Authority
NAPC	National Anti-Poverty Commission
NBSAP	National Biodiversity Strategy and Action Plan
NCIP	National Commission on Indigenous Peoples
NEMA/PEPA	National Environmental Management Authority/ Philippine Environmental Protection Agency
NGA	National Government Agency
NGOs	Non-Governmental Organizations
NIA	National Irrigation Administration
NICMMS	National Integrated Coastal and Marine Management Strategy
NIPAS	National Integrated Protected Area System
NPC	National Power Corporation
NPPSC	National Programs and Projects Steering Committee
NRM	Natural Resources Management
NWRB	National Water Resources Board
O & M	Operations and Maintenance
PA	Protected Area
PAMB	Protected Area Management Board
PASU	Protected Areas Superintendent
PAWB	Protected Areas and Wildlife Bureau
PAWD	Protected Areas and Wildlife Division
PBCPP	Philippine Biodiversity Conservation Priorities Program
PD	Presidential Decree
PENRO	Provincial Environment and Natural Resources Office
PNOC	Philippine National Oil Company
PNP	Philippine National Police

PO	People's Organization
PS	Personnel Services
PTA	Philippine Tourism Authority
QUEDANCOR	Quedan and Rural Credit Guarantee Corporation
RBA	River Basin Authority
RDC	Regional Development Committee
RED	Regional Executive Director
RUP	Resource Use Permit
SFM	Sustainable Forest Management
SIFMA	Socialized Industrial Forest Management Agreement
SWAP	Sector-Wide Approach Program
TLA	Timber License Agreement
TOR	Terms of Reference
UP MSI	University of the Philippines Marine Science Institute
USAID	United States Agency for International Development
WRDP	Water Resources Development Project

## NATURAL RESOURCES GOVERNANCE: WAY FORWARD ACTION PLAN

### Summary of Key Issues

Long-term, sustainable economic growth and poverty reduction in the Philippines will depend critically on how successful the government will be in providing an effective framework for environment and natural resource management (ENRM). Despite innovative policy and other instruments to institute responsible ENRM, results have been mixed at best. The challenges to this framework are:

- The shrinking budget of the Department of Environment and Natural Resources (DENR), a large portion of which goes to personnel services, with too little allotted for operations and investment in ENRM. In addition, the budget is fragmented over diverse and uncoordinated functions (bureaus) and there is too much dependence on Official Development Assistance (ODA).
- Slow-moving devolution toward greater community and local responsibility for ENRM, compounded by complex and cumbersome processes of securing tenure and property rights.
- Limited funding for local institutional bodies—provincial environment councils and Protected Area Management Boards (PAMBs)—to adequately address issues of protected areas, because the Integrated Protected Area Fund (IPAF) mechanism remains ineffective.
- Lack of service and performance standards for ENRM, e.g. protracted procedures in securing tenure instruments and in the issuance of resource use permits, resulting in lower accountability and local transparency in ENRM.

### The Way Forward:

- To improve service delivery, the DENR needs to undertake a substantial institutional review as well as develop an actionable framework. In particular: (a) expenditures (e.g. personnel services vis-à-vis non-personnel services) must be rationalized; (b) the prioritization of functions and major final outputs (MFOs) must be significantly improved and these should be realigned with the budget; (c) more effective partnerships with line agencies should be developed to improve delivery of ENRM; (d) more effective devolution and local responsibility for ENRM should be encouraged; and, (e) the legal framework for ENRM should be streamlined and rationalized to improve efficiency.
- ENRM should be structured around an overall set of broad themes that encompass an integrated ecosystem approach, including: (a) watersheds; (b) coastal resources; and (c) protected areas. More immediately, the DENR should develop effective land use and real-time database systems to adequately assess and monitor the country's resources. Without these, environment and natural resource planning and management would not have a sound basis.

## Executive Summary

The Philippines possesses a rich natural resource base, ranging from water, forests, coastal areas, to mention but a few. The large rural population in the Philippines, now estimated at 41.4%, is largely dependent on these natural resources for their livelihoods; approximately 20% live in or adjacent to forest areas.

The degradation of natural resources has been significant in the last 30 to 40 years as the population rapidly increased. To reverse this trend, the government introduced innovative institutional and legal reforms for sustainable natural resources management. For example, in the mid-1990s, the DENR initiated the transfer of management of natural resources to local governments, local communities, and indigenous peoples, in accordance with the recently-enacted Local Government Code (LGC). A variety of tenure rights were granted to communities and indigenous peoples, particularly in the management and utilization of forest resources. In addition to creating a national system for protected areas, the indigenous peoples' right of ownership to ancestral lands and domains, including its natural resources, was recognized.

Despite efforts to improve natural resources management, performance has been mixed. The overriding issues of degradation continue and the measures that the government took to reverse the trends have produced limited results. In the uplands, where 20 million of the most poor depend on the forests for their livelihood, poverty has persisted. Population pressures and open access to most of the natural resources work in confluence to drive the continuing forest destruction, coastal resource exploitation, biodiversity loss, and rapid watershed degradation.

This rapid degradation exerts further pressure on the remaining resources and significantly constrains the communities dependent on these resources from deriving sufficient income. In the absence of alternative livelihoods, the poverty incidence in these communities remains high.

Key areas reviewed for inclusion in the Action Plan pertain to the following:

### **Implementation of tenure instruments.**

Application procedures for obtaining tenure instruments remain cumbersome and complex for communities. Furthermore, in some places different instruments have been issued for the same area, such as ancestral domain claims and forest management. For coastal resources, there are no existing community-based property rights despite the devolution of control over coastal waters and resources to Local Government Units (LGUs).

To resolve these insufficiencies, tenure rights must be accompanied with responsibility and accountability based on national and local standards. The DENR needs to enforce these responsibilities and standards, and to provide the tools and services the local governments and communities need to observe and implement them.

**Budget.** As with other government agencies, the budget of the DENR has been shrinking annually resulting in reduced financing for investments. Furthermore, the limited budget of the Department is spread across too many programs and projects and fragmented among four bureaus, significantly limiting any bureau's ability to effectively implement natural resources policies and plans. In addition, there tend to be frequent banner programs instituted by new DENR Secretaries without adequate assessment of on-going budget requirements of the Department, creating significant inefficiencies in spending on natural resources.

**Institutional arrangements.** New institutional arrangements with local governments and other stakeholders such as the PAMB and provincial environment councils have brought more transparency in resource management decisions. PAMBs are now actively involved in issuing local conservation regulations and implementing management plans for protected areas. Enhanced stakeholder partnerships have increased the number of volunteers and non-governmental organizations (NGOs) assisting protected area superintendents in park management and protection activities.

However, the financing of these activities is still limited. The IPAF has not yet functioned effectively. Without sustainable financing, much

of the new institutional arrangements could be lost. The new arrangements require that responsibilities match institutional capacity, both financial and human, and accountability.

**Service and performance standards.** Overall, standards have yet to be developed for the management and delivery of natural resources management, such as the length of time it takes to implement tenure instruments and/or to process resource use permits. These processes remain time-consuming and expensive; only a few individuals or communities are able to afford them. To improve service delivery, the DENR and local governments need to develop performance standards particularly for resource-rich provinces with numerous land use conflicts.

**Priority areas for management.** Briefly, the study identified three areas of focus by the DENR:

(a) Integrated watershed management, in view of the recent enactment of the Clean Water Act, its importance to integrated ecosystem management and its large contribution to other sectors, such as environmental management, agriculture and general rural development;

(b) Integrated coastal resource management, given the fragility of coastal ecosystems, its high potential for sustainable development and as a viable source of livelihood for poor coastal communities; and,

(c) Protected areas management, given the rich biodiversity of the Philippines, which contains more diversity of life per hectare than any other country on earth. The denudation of the Philippine's forests is one of the highest biodiversity loss rates in the world. This loss represents, not only a loss to present and future sources of livelihood, but also a loss to the country's national heritage.

**Recommendations.** Several actions are proposed for implementation in the short, medium and long term. The intention of this study was to develop actionable recommendations for inclusion in the implementation plans of the DENR. Over the last decade or so, the mandates of the DENR have progressively increased, but budget allocations remain volatile and have actually decreased numerically.

The Department should review its present mandates and assess human and budget availability to prioritize those mandates that it can deliver on. More specifically, the following short-term actions are needed:

**Institutional and policy reform:** These reforms are urgent:

(a) The DENR should be rationalized and streamlined to increase its capacity to deliver services in a more cost-effective and timely manner. Specifically, the costs for personnel services (PS) and maintenance and other operating expense (MOOE) should be balanced with investments costs. This has emerged as a major policy issue. In addition, the DENR should decide which of its mandates are the most important, even for the short term. It should adequately fund these to ensure maximum impact in the results obtained.

(b) The DENR should cultivate more partnerships with other agencies involved in natural resources management. Based on the agreement of priority areas to be pursued, the Department should identify the best-placed agencies with which it can participate in planning and implementation, build consensus, and devolve or delegate actions accordingly. This may require the development of incentives to ensure follow-through by the partners. Devolution may also need to be done in phases to ensure readiness of the partners.

(c) The DENR should reorient and train its personnel in line with its evolved mandates. To create an enabling policy, the DENR should review the numerous laws and propose amendments thereto to simplify and facilitate implementation.

**Implementation.** The following are among the most important:

(a) After the priorities are selected, the budget should be aligned with planning processes. This is best done through a review of the MFOs and their respective indicators. Furthermore, the DENR should prepare a detailed costing of the priorities, taking into account the country's financing difficulties.

(b) The land use planning maps should be completed to support the shift from sub-sectoral planning to an integrated planning and implementation approach.

(c) The rate of community-based forest management (CBFM) tenure instrument issuances should be increased to improve devolution. At the same time, this increases the capacity of the local communities to independently manage the CBFM resources.

A majority of these actions will be addressed in the budget support program that the DENR is preparing for implementation starting 2007.

## Chapter 1. Building on the NRM Governance Study

A 2003 World Bank study, *Governance of Natural Resources in the Philippines*, analyzed natural resources management and governance in the Philippines. It assessed sector policies, particularly property rights, institutions, and financing mechanisms as well as program implementation.

The study concluded that implementation failures in the Department arose from:

- (a) Unclear institutional mandates between national and local governments;
- (b) Lack of sustained financing at the national level and limited generation of revenues at the local level for natural resources management;
- (c) Protracted procedures in the issuance of forestry tenure instruments and difficulties in the enforcement of provisions of agreements;
- (d) Lack of equivalent tenure instruments for coastal waters and resources;
- (e) Administrative constraints, such as inadequate funds and personnel to carry out sustainable natural resources management; and,
- (f) Insufficient capacity, accountability and transparency in public and private institutions responsible for natural resources management.<sup>1</sup>

Because the *Governance* study stopped short of proposing a way forward, this follow-on activity was designed to develop an actionable follow-on plan that could be translated into short-term to medium-term investments. This follow-on study had the following specific objectives:

- (a) A **Policy Review** of the various legislations, such as acts and executive orders (EOs), that govern the management of resources. Based on these laws and through consultation with the DENR and other involved agencies, a matrix would be prepared to identify the responsibilities

of each agency in implementation, to identify gaps and overlaps in responsibilities, and to recommend actions the DENR needs to take in order to fill in the gaps. The matrix would also identify which agency should be given full responsibility for a particular area or sector and how DENR can facilitate this process.

(b) An **Institutional Environment Review**. To rationalize the efficient use of resources, the mandates of the DENR's services and bureaus in the context of DENR's overall mandate should be examined. Two particular areas would be reviewed:

- Potential for decentralization/devolution: In light of the emphasis by the government to decentralize and devolve functions, the consultants would assess the extent to which this has happened in DENR and propose how this can be advanced; and,
- Partnerships: The consultants would review the potential of DENR to work with other agencies responsible for activities that are relevant to natural resource management (NRM) issues. Some of these agencies include the Department of Agriculture (DA), Bureau of Fisheries and Aquatic Resources (BFAR) or the LGUs. The consultants would also recommend effective and appropriate mechanisms to facilitate these partnerships. Some examples are the joint memorandum circular between the DENR and the Department of Interior and Local Government (DILG) and those being prepared with the DA, BFAR and the National Commission on Indigenous Peoples (NCIP).

This follow-on Action Plan concentrates mainly on the green agenda, with limited attention being given to the blue and the brown agendas. These areas would need further attention and an appropriate Action Plan prepared.

### Methodology

The *Way Forward Action Plan* study was prepared jointly by a DENR task force and a Bank Team. The joint team began with an accounting of the distribution of forestlands, their respective resource managers, mandates and terms of

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<sup>1</sup> The findings are also consistent with those found in earlier literature.

reference defined in the proclamations and policy documents.

The team then reviewed secondary information on natural resources, including governance, tenure security and service delivery. Improving the impact of decentralization and devolution, the potential for increasing partnerships in managing natural resources, and efficiency in awarding of tenure instruments was given particular attention.

The initial draft of issues and concerns were verified through field consultations with representative resource managers. The team reviewed and edited several iterations of the issues and the way forward action plan before these were presented to the DENR executive committee for final inputs.

### **Expected Output**

It was agreed that the output would be an Action Plan. The Plan would clearly indicate priority actions that the DENR must undertake in terms of institutional, legal and operational reforms. These actions would take into account the country's challenging fiscal situation and the institution's capacity to implement the said recommendations. The Action Plan would guide the Bank and other donors in prioritizing short-, medium-, and long-term actions and investments. Most importantly, the Action Plan would emphasize impact and sustainability.

## Chapter 2. Basis for Moving Forward

### Institutional and Policy Aspects

As a bureaucracy, the DENR has one of the largest number of personnel. A large majority of these staff are stationed at the central office or have been moved to the regional offices. As a result, DENR's experience with devolution is still very limited and derives mainly from the Integrated Social Forestry (ISF), which was devolved in the mid-1990s after the enactment of the LGC. The DENR's situation is unlike that of the DA and the Department of Health (DOH), whose functions have been significantly devolved.

Although skilled, the devolved personnel of the DENR have not had the intended impact in the field due to a poor division of the roles and responsibilities of the DENR and the LGUs. The situation was compounded by the limited capacity given to the LGUs and the devolved staff to carry out the ISF program because of lack of understanding of the program's rationale, objectives and activities. In addition, the DENR and the LGUs did not provide resources to sustain the program and build capacities.

Efforts to further devolve functions to the LGU level have been limited; hence, the overall impact from the initial devolution effort has been minimal. The DENR is aware of the importance of continuing the devolution effort. It now needs to take immediate action as the issue has urgent implications on the Department's future role and functions, particularly with regard to budget use efficiency.

With the scarcity of resources and an extensive devolution mandate, the DENR has little choice but to pursue broader devolution. However, further devolution must also consider the readiness and capacity of LGUs to implement the activities. Thus, the focus should now be how to improve the LGUs' capacity and develop incentives to make them work better and achieve higher results. This will require an evaluation of who in the LGUs would be best equipped to take on an increased role in natural resources management.

A quick look at the evolution of the DENR's mandates—the need for closer coordination and/or joint implementation with local communities, the decentralization of structures, the reduction of the number of timber licenses, to name a few—necessitates an in-depth review of the mandates of the various agencies involved in natural resources management, particularly those within the DENR, the key implementing agency.

Based on the results, priority areas for support should be identified. This review should be complemented by an appraisal and update of the resource management tools used by DENR, which should evolve from a top-down role to one that is joint and community-based. In addition, training will need to be conducted to renew and upgrade staff skills; where this is not possible, new staff should be hired.

The institutional changes that must take place need to be complemented by an upgrade of the human resource skills. In many of the regional offices, the staff's qualifications are still reminiscent of the days when the DENR's major mandate was timber production, and not joint management approach with other stakeholders. A large number of forest rangers and scalers remain on the payroll. Even at the Community Environment and Natural Resource Office (CENRO), which acts as the primary interface between the DENR and the local communities, there are only a few community development workers.

The dearth of new and necessary skills deprives the DENR of the leadership needed to fight upland poverty, work with local government and upland communities and bring about a societal approach to the country's varied environmental problems. At the same time, the DENR should develop and encourage viable partnerships with LGUs, NGOs and local communities to increase the number of practitioners in community management activities.

To strengthen devolution, the DENR will also need to support the increased transfer of human and financial resources<sup>2</sup> with sufficient logistics arrangements. At the legislative level, the

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<sup>2</sup> However, with about 70% of DENR's budget going to PS and 25% to MOOE, it will be difficult to financially support substantive devolution.

constraints are minimal, as the LGC already contains provisions for continuing devolution. Thus, it is imperative for the DENR leadership to promulgate a policy decision to do so.

Short- to medium-term devolution now becomes more urgent, with the limited budget, the recent explicit declaration by economic managers that devolved activities can no longer be financially supported by line agencies, and the unlikely possibility that the overall budget to the DENR will increase in the near future.

Again, this must be done with the recognition that the LGUs only have limited expertise to immediately perform the devolved functions. The DENR will need to develop mechanisms wherein the limited budget will be used most effectively. One mechanism could be a performance-based budget system that links inputs to outputs.

Thus, budget allocations could reflect the quality and quantity of resources to be managed while acting as an incentive for the engagement of the LGUs, communities and other partners in natural resources management. Simple and clear performance standards and monitoring systems would correspondingly need to be developed so that they result in increased transparency and accountability of the resource managers.

Pursuing devolution will require the DENR to increase its coordination with other agencies, and including LGUs, the NGOs and the private sector. This could provide strategic and targeted levels of engagement toward a sound and coordinated natural resources management.

Past experience shows that this can work. During his term, President Fidel V. Ramos preferred to focus attention only on proposals that had been agreed upon by all agencies concerned. Consequently, Cabinet meetings were held mainly to settle inter-agency concerns. This had the effect of improving effectiveness of actions addressed.

Delivering on a mandate that requires significant cross-sectoral inputs, such as that managed by the DENR, dictates that viable partnerships be developed with agencies also working on natural resources management to improve results and impact.

Presently, more than half of the country's total land area (or approximately 16 million hectares) is under DENR management. While much of the forestlands have been awarded through agreements and licenses to other government agencies, the private sector, and/or communities, the overall responsibility is still perceived to be with the DENR. With almost one-third of these forestlands (5.5 million hectares) still operating as open access areas, DENR is under pressure to provide leadership and strategic guidance in sustainable natural resource management.

The DENR has begun to initiate the formation of partnerships, such as that established through a Memorandum of Agreement (MOA) signed with the NCIP to facilitate DENR's assistance to indigenous communities. Another MOA has been signed between the DENR and the Department of Science and Technology (DOST) to allow the latter to provide technologies to be used as a basis for establishing alternative livelihoods and enterprises in upland resource-dependent communities. The DENR has also signed another MOA with the DILG to facilitate co-management of natural resources with the LGUs. In an effort to reach out and provide support to its newly formed partnerships, DENR has established environment desks in national agencies, whose work includes supervision of environmentally critical industries, clients and/or communities.

During the late 1980s, the DENR established a tradition of working closely with NGOs. It has successfully implemented joint projects with industry groups to install environmental standards and self-monitoring systems among member companies.

Still, the bureaucracy remains replete with inter-agency coordinating councils that are not functioning as intended. The problem often lies with coordination in the field, even when roles are clearly defined. For instance, PAMBs often complain that representatives sent in place of the principals are not qualified to deliberate on issues under review.

Based on the few successful cases of collaborative implementation, the key element appears to be the direct and personal involvement of the top officials of the agencies in question. The President's support, in the form of an

administrative order (AO) or EO, can significantly facilitate the process. Other key factors in addressing institutional and policy concerns are: sufficient funding for joint projects; clear terms of reference that are followed through with indicators of performance and monitoring and evaluation (M & E); public disclosure of results; and a provision for incentives.

## Legal Aspects

The DENR mandates are governed by a large number of laws, EOs, codes, and the like, all of which are fairly complex and, in some instances, overlap each other. In addition, there are a vast number of agencies and bureaus involved in natural resources management, some of which have overlapping mandates. This situation results in unclear roles and responsibilities and fragmentation of efforts.

The main issue is, therefore, the multiplicity of laws governing natural resources management. Many of these are outdated, such as the Presidential Decree (PD) 705 or the Revised Forestry Code of the Philippines. Enacted in 1975, it remains the primary forest policy in the country.

Figure 1 below illustrates the complications arising from the overlap of PD 705 with other legal instruments governing forest management. The provisions of PD 705 no longer satisfactorily respond to the current mandates of DENR. In particular, it supports neither increased participatory or joint forest management nor increased devolution or decentralization of resource management, both of which will contribute to reducing the high exploitation rates and improve sustainable management of the resources.

Where the laws have been updated, little effort has been made to consolidate them. For coastal resources management, no single integrative law clarifies the conflicting mandates of agencies in the coastal areas or provides guidance on the problem of over-exploitation and illegal settlers in open access and/or reclaimed areas. This results in a lack of clarity on the best way to implement the laws, further constraining the institution from fulfilling its role.

Two key activities need to be carried out. First, it will be important to review and clarify the implementation of the various laws, decrees, EOs and AOs, and all other pertinent legislation governing the management and implementation strategies relevant to natural resources. Pending legislation, particularly those that have been awaiting action for a long time, should be reviewed for integration and relevance.

In this regard, three key laws will need to be revisited:

(a) *Coastal Zone Management Act (CZMA)*. The mandates and roles of the various agencies involved in coastal resource management (CRM) must be clarified. In reviewing the CZMA, there is a need to define areas that strengthen the LGUs' capacity to manage its coastal resources. It is also important to determine and provide mechanisms for the transfer of required CRM technologies and management skills to the LGUs and the end-users. Providing incentives to implement the law, through an integrated coastal management approach, can lead to a broader and sustained impact.

However, given that it will take some time before the Act is enacted, the DA and DENR will need to draft the joint memorandum on CRM mandated by law in 2000. The two agencies were mandated to draft the National Integrated Coastal and Marine Management Strategy (NICMMS) but this has not yet happened.

(b) *Sustainable Forestry Act (SFA)*. To make sure that the SFA responds to current NRM directions, it is important to clarify the conflicting laws and reduce the executive discretion on issuance of logging rights. It is also preferable that the SFA authorize the retooling of the DENR to meet its evolving mandate by stressing management and community development skills to gain the participation and cooperation of stakeholders.

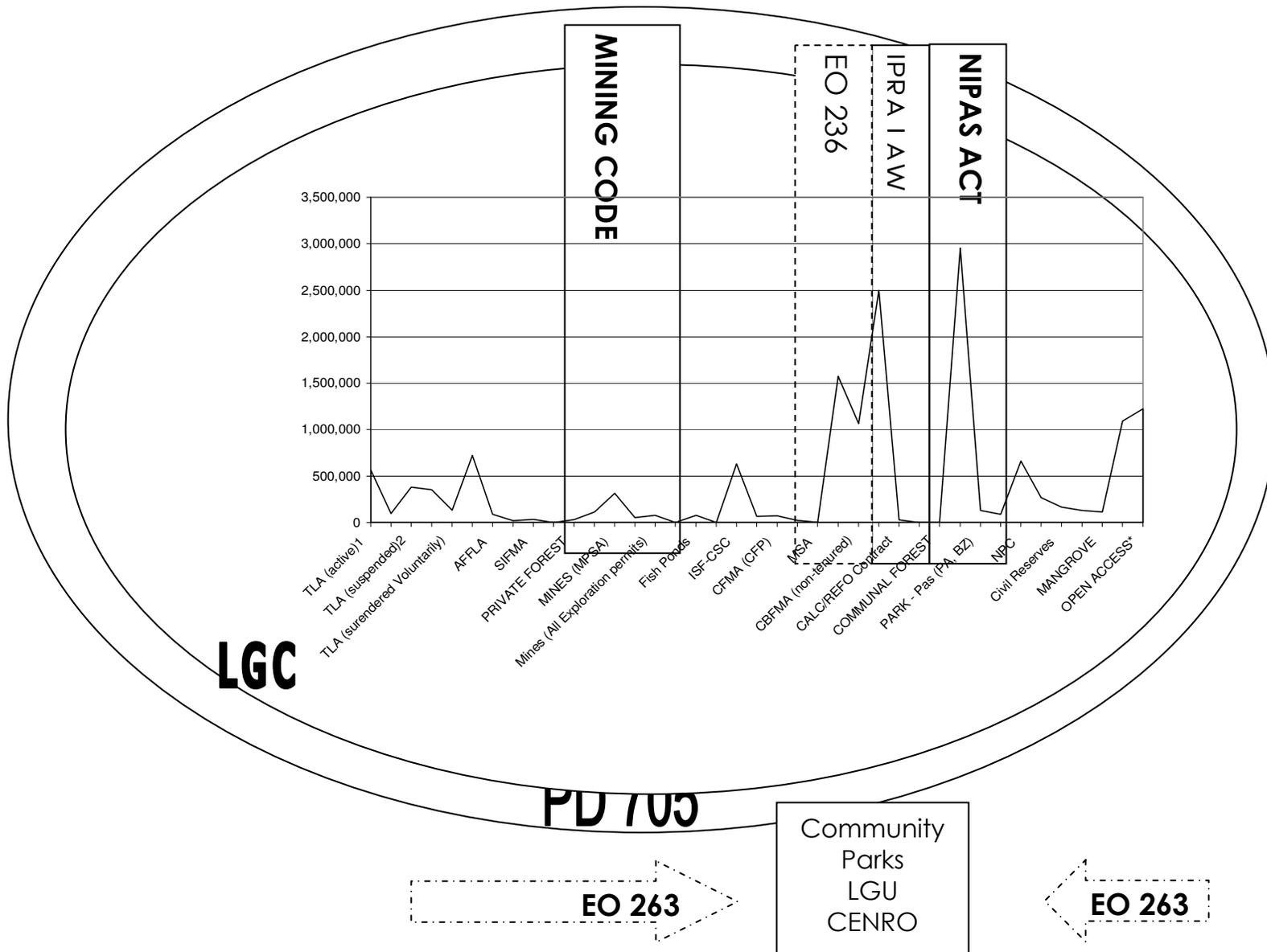
This will strengthen the role of LGUs in forest management, especially of communal watersheds. It will also provide technical support to communities with Community-Based Forest Management Agreements (CBFMAs), Certificate of Ancestral Domain Claims (CADCs), and Certificate of Ancestral Domain Titles (CADTs). But the SFA will have limited application if the

DENR fails to provide a dynamic source of funding, such as user fees and trust funds.

(c) *National Integrated Protected Area System (NIPAS) Act.* The NIPAS Act has been operational since 1997. The results of its implementation and impact have been mixed. Taking a closer look at the Act, particularly with regard to its impact, its processes and procedures governing the use, protection, conservation and integration into local planning and development will significantly contribute to a greater appreciation for biodiversity conservation. Reasonable access to the IPAF, so that it becomes an incentive rather than a bureaucratic impediment, will be crucial.

The present system for establishing protected areas under the Act is a drawn-out process. It results in weak local support and commitment which threatens the sustainability of protected area management. Annex 1 presents the implementation and governance aspects of the NIPAS Act.

**Figure 1: Presidential Decree 705 and Related Laws and Executive Orders on Forestland Management**



## Funding Aspects

To improve the efficiency of DENR's operational functions, a more focused and strategic budget and planning process is needed, particularly now given the country's current fiscal challenges. Since the 1997 Asian crisis, the budget of the DENR has substantially declined. In the past, fiscal constraints have generally been remedied with foreign funding. This situation is no longer supportable as foreign funds, especially from bilateral agencies, have become scarcer. A viable strategy to address this issue does not yet exist. Furthermore, the DENR has not really had the opportunity to rationalize its numerous bureaus, agencies and staff needs to match funds availability.

Budget availability is likely to remain a constraint, at least in the short to medium term. Accordingly, emphasis on attaining prioritization in budget allocation and efficiency will be more important than trying to access higher budgets. More importantly, in congruence with its prioritization process, the DENR must cost the identified priorities to present a request that is in line with priority needs and cognizant of the country's fiscal difficulties.

To ensure that government agencies perform in a manner that is strategic and impact-driven, national government agencies were required to develop their respective MFOs. The MFOs embody the core objective and purpose of the organization and serve as the basis for rationalizing its programs, projects, staffing needs, and budget. The DENR is one of the agencies that piloted this initiative. The challenge now is to translate these MFOs into concrete planning and priority-setting strategies which should lead to specific areas and types of operations. In this way, the MFOs can serve as the basis for a more rationalized and responsive budget.

Efficient budget allocation based on prioritized activities and themes will require knowledge of the quality and quantity of natural resources. Obtaining this type of information requires an inventory that should be collected by region or province, type of resource, estimated value, etc., at the very least.

This gap was recently partially addressed with the acquisition and interpretation of the latest satellite images of the country, jointly carried out by National Mapping and Resource Information Agency (NAMRIA) and the Forest Management Board (FMB) in 2003. The maps show the state of the forests (closed canopy forest, open canopy); plantations and mangrove areas; where these areas are in the provinces, etc.

In addition, a forest assessment with assistance from the Food and Agriculture Organization (FAO) will soon be completed, after validation by the LGUs to ensure conformity with the plans of the DENR and the LGUs. However, further inventories are still needed for other natural resources.

The difficulties in obtaining reliable inventory information are also being compounded by inadequate institutional structures, particularly for devolved activities such as those under the CBFM. Although areas designated as CBFM are managed by people's organizations (POs), the POs do not have formal agreements with the DENR; they do not have a signed CBFMA. As of June 2004, in 5503 sites (with over 496,000 households), it was found that less than half of them possessed signed CBFMAs.

The absence of formal agreements leads to difficulties in accountability and in gaining an accurate picture of the actual state of the resource. Both the awarding of formal tenure instruments for the identified CBFMA, and the capacity-building activities of POs to monitor resources and collect information to be used to update the inventories must be improved to address this issue.

Apart from prioritization, a potential measure to attain budget use efficiency would be to develop financing mechanisms that increase available funding.

One such example is that used by Poland where a trust fund, capitalized by pollution user fees (the greater the pollution, the higher the fees), was set up. The money from the trust fund was lent to implementing agencies to solve environmental problems. As an incentive, the trust authority converted the loan to a grant when the agreed environment measures are effectively

implemented. The approach can feasibly be applied in the Philippines, and it has the added advantage of strengthening accountability and providing built-in incentives to resource managers.

The Laguna Institutional Strengthening and Community Participation Project (LISCOP) is the first activity in the country that is trying to apply a mechanism where good performance can result in a loan being converted to a grant. In this instance, the government would repay the loan on behalf of the Laguna Lake Development Authority (LLDA), the borrowing agency, upon successful implementation of agreed objectives.

In Boracay, the use of water fees to generate funds for the protection and rehabilitation of watersheds is being piloted by the Philippine Tourism Authority (PTA). The PTA has set up a water supply system for which it charges user fees; in turn, it has agreed to allocate a portion of its revenues for the protection and rehabilitation of the watershed on the island.

This concept is also being tried in coastal resources, such as in Hilutungan and the Nalusuan, Anilao, and Apo Island, where visitors are levied charges for swimming, diving, snorkeling, and similar activities in the marine sanctuaries. The extent to which this system can be replicated depends on whether the agency charging user fees can retain them for use. Unless this is ensured, the collected fees must revert to the Treasury as stipulated by the NIPAS and Clean Water Acts. The reversion of fees to the government is a clear disincentive to local accountability, commitment, and sustainability.

The combined projected annual allocation for the protected areas (PAs) of DENR, ODA, NGOs and other sectors<sup>3</sup> would be adequate to fund the operation of the country's existing 159 PAMBs and the implementation of 63 park management plans. However, ODA and NGO funding tends to be concentrated unevenly in 25 to 30 sites, with the bulk of the funding concentrated in less than ten sites.

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<sup>3</sup> In 2003, this amount was estimated to be almost US\$11 million.

On the other hand, the DENR's own budget allocation, enough for approximately 20 parks, is distributed among all the sites under the NIPAS process. Hence, the majority of the parks and PAs with proposed or existing presidential proclamations and established PAMBs are not able to receive adequate allocations to undertake proper management on the ground.

It will be important that DENR and its donors coordinate and collaborate to direct investments to meet the needs of PAs, with global and regional biodiversity conservation as priorities.

Some innovative devolved financing schemes have been developed. A case in point is the DENR's partnership with the local government of Puerto Princesa for St. Paul's Nature Park and the Tubbataha Reef. Based on innovative and mutually agreed-upon arrangements, 100% of the fees generated are kept locally. This model should be reviewed for replication.

The general state of the country's M & E systems for NRM and biodiversity is limited. With the emphasis on the MFOs as a major indicator of performance within the country, and with the increasing emphasis of the donor agencies on results and impact for investments, it is imperative that an adequate, accurate and management-oriented M & E system be developed.

This may require the consolidation of the various systems already in place at the DENR. The new system would provide the national government with the trends to enable it to steer and adjust policies and scarce finances accordingly. The system should ideally provide accurate and meaningful reports to the Convention on Biodiversity secretariat, as well as to donors. More importantly, this will provide local level resource managers, including PAMBs, protected areas superintendents (PASUs), LGUs and communities, with trends on land and resource uses. The information should enable them to mitigate actions on the ground faster.

It was in this vein that the DENR issued Departmental Administration Order (DAO) 13-2001 instructing all regional executive directors (REDs) and PAMBs to run the DENR Biodiversity Monitoring System developed with the assistance of a World Bank Technical

Assistance-implemented component of the Conservation of Priority Protected Areas Project (CPPAP), a World Bank-assisted project. This system remains functional, but does not adequately cover the monitoring of all aspects of NRM.

### **Chapter 3. Prioritization in Addressing Core NRM Issues**

Building on the aspects discussed in the previous chapter, the prioritization of key sub-sectors in the short term (up to 2007) and the medium term (up to 2010) is needed for the DENR to move forward with effective NRM governance.

This chapter presents and discusses the activities that should be implemented in these time horizons. They are divided under specific areas of policy, institutional and governance reforms. Annex 2 presents the key actions to be taken by each sub-sector and by time horizon.

With the current tight fiscal challenges, broad institutional mandates, large bureaucracy with uneven human resource skills, and disconnect between planning and budget processes, the DENR will need to exercise selectivity and prioritization in the financing and implementation of its programs and activities.

This selectivity must also be carried out with the view to obtaining improved service delivery, better governance, accountability, higher impacts of the implemented activities, and improved efficiency in the agency's ability to deliver its core mandates in a fiscally constrained environment.

Based on the discussions, consultations with partners in the sector, and literature review, three key areas have been identified as needing priority attention and support in the short to medium term, namely: (a) watershed management, including forestry management (but this should not be in the traditional sense of simply increasing forest areas, but rather in the broader context of balancing conservation, management and use); (b) integrated coastal zone management; and, (c) protected areas management.

Focusing on these three areas will give the agency the opportunity to concentrate its efforts and resources to ensure impact and sustainability. Moreover, the DENR will be able to fulfill tasks and responsibilities that can create greater awareness and appreciation among oversight agencies and donors.

Getting the most impact from these three areas requires cross-sector planning and implementation. As such, "planning should start from the top of the mountain down to the sea"—a key principle in ecosystem and landscape approaches.

In the Philippines, land use planning has traditionally only literally covered land resources. Even where land has been given priority, forestlands are inadequately covered; coastal resources have generally been left out. However, this is changing with broader approaches using ecosystems, watersheds, landscapes, and integrated coastal zone management.

#### **Integrated Community-Based Watershed Management**

In 1998, the DENR's Forest Management Bureau, assisted by the Danish International Development Agency (DANIDA), released the Philippines' *Strategy for Improved Watershed Resources Management*, which laid out the basis for sustainable watershed resources management. Notwithstanding this, the implementation status of watersheds starkly illustrates the limited impact that some of the applied measures have had to date.

At the core of the watershed problem is the absence of a basin- and watershed-based integrated water resources management approach to guide water resources development, protection and efficient use. This results in weak capacity for regulating and coordinating activities across sectors, inadequate investments in water infrastructure and watershed management, and inadequate operations and maintenance (O & M) of water infrastructure.

The World Bank's *Country Water Resources Assistance Strategy for the Philippines* (2003) noted that water management in the country is fragmented; responsibilities are divided among agencies and sectors with little coordination or communication. Agencies have largely independent programs for water resource development and operations.

Negative externalities from excessive water withdrawals and discharges have extended impact

in upstream and downstream areas of river basins and across sub-sectors. Despite various efforts, the participation of the natural resources users has yet to reach acceptable levels. A large quantity of the resources must engage the communities that exploit them, if they are to be managed in a sustainable manner.

And as the management of resources evolves towards a decentralized community-managed system, where the communities themselves become the stewards of the forest, these new managers should be adequately supported to carry out this mandate.

The 1995 Water Summit of the government of the Philippines (GOP) stressed the need to “initiate integrated water resources management based on hydrological boundaries or river basins as the direction for future water resources planning and investment.”

More than half of the total land area of the Philippines (30 million hectares) act as watersheds for the other half, which are mostly of lowland terrain. These watersheds comprise most of the country’s forestlands. Its severe degradation (estimated at 93%) in the last fifty years has reduced forest productivity. The reduced revenues have caused exacerbated problems of poverty, flooding, and loss of land.

Seventeen percent of the country’s land area is subject to severe soil erosion; 28%, to moderate erosions; and 30%, to slight erosions. This reality lessens the capacity of the poor upland communities to grow their own food on a sustainable basis. Even the economically better off in the cities are not spared by the depleted supply of potable water.

The government has been making continuous investments in reforestation and infrastructure for water distribution. But a significant part of the problem continues to exist due to the large population dependent on the forests, presently estimated at 20 million, increasing poverty in the uplands and the open access to most of the natural resources.

Up until recently, an accurate and updated resource inventory of forest resources has not been available. The resource inventory is a key element in carrying out water resource

management and integrated watershed management.

With the major degradation of the watersheds and the emerging directions taken by the DENR leadership, the strategic focus in the uplands has broadened from simply that of trees to the whole dynamics of water resource management.

The paradigm shift from forestry to watershed management has strategic advantages for natural resource management. First, this permits the development of partnerships for a more holistic approach to watershed management. Second, with the decreased status of wood resources, water contributes more to the economy than wood, making it easier to justify more funds for watershed rehabilitation. Third, if the resource is properly managed and costs are recovered, water presents a source of funding for upland rehabilitation.

The strategic focus on integrated watershed management does not reduce emphasis on other aspects of forestry, such as wood and non-wood products. Rather, the shift emphasizes the need to classify and work with forests based on use: those that are for protection because of their watershed function and biodiversity value; and/or those that are appropriate for production.

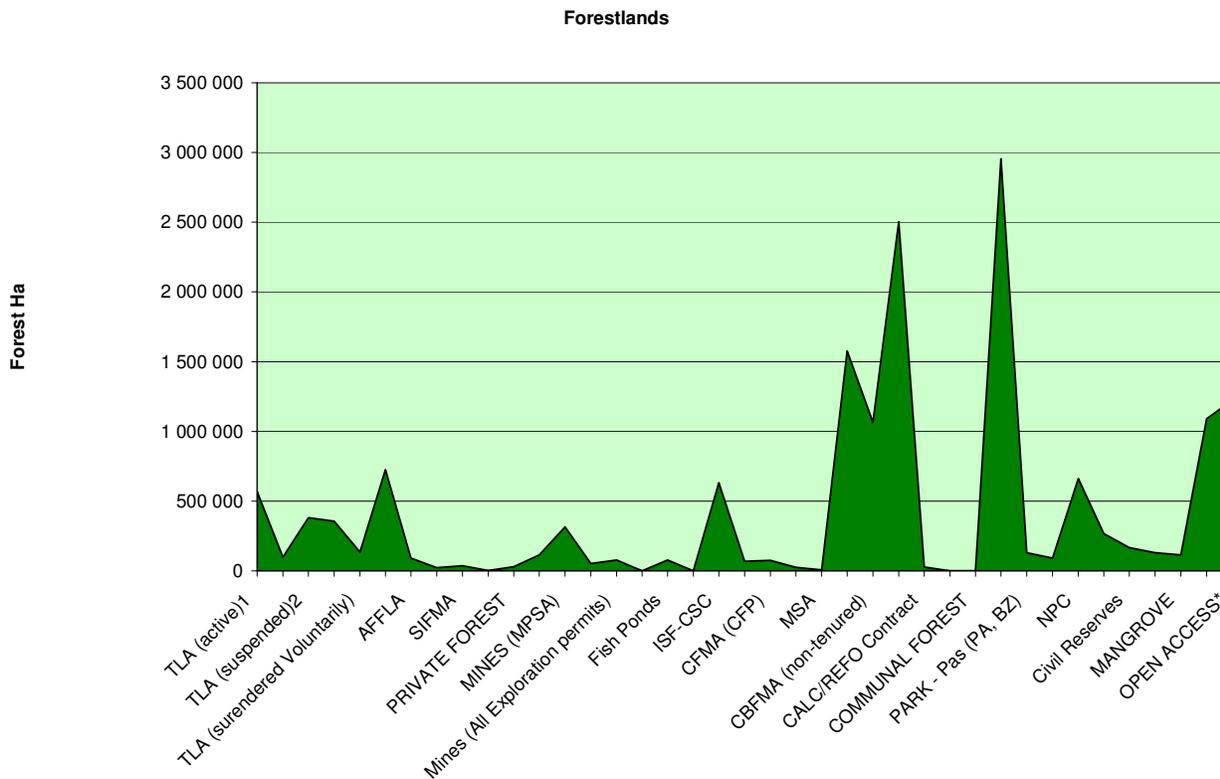
An integrated watershed management program must address and encompass the elements that have driven continuing degradation of the uplands, hindered its rehabilitation, or caused gaps and anomalies in the implementation of existing policies and programs. The integration should include and identify, not only the activities implemented, but also the key players involved to strengthen partnerships and build ownership and accountability for the resources.

Presently, there are 8261 identified resource managers with leaseholds, concessions or legal stewardships over forestlands. This excludes the LGUs, which are directly responsible for local watersheds.

Communities are responsible for approximately 8.9 million hectares (or 79% of the total forestland area) under various kinds of tenure instruments, such as those under the ISF, CBFMAs, CADCs

and CADTs.<sup>4</sup> Eleven government agencies are responsible for over 3.9 million hectares.<sup>5</sup>

In the light of this array of actors, management regimes and broad stakeholders, the DENR must



**Figure 2: Coverage of Various Management Instruments and Regimes**

The private sector, previously the largest segment up to the mid-1980s, now account for approximately 3.1 million hectares covered by Timber License Agreements (TLAs), Industrial Forest Management Agreements (IFMAs), Socialized Industrial Forest Management Sharing Agreements (MPSAs), Financial and Technical Assistance Agreements (FTAAs), and Exploration Permits, Private Forests, Grazing Lands.<sup>6</sup> A total of 2749 private persons and entities comprise this group. Figure 2 shows the various resource managers and the approximate share of forestlands, in hectares, under their mandates.

define the roles and responsibilities for these resource managers, establish the current state of the resources under their jurisdiction and specify the indicators of performance, which will be the basis of an annual review. All resource managers must establish close linkages among themselves and ensure active participation from communities adjacent to or within their areas of responsibility.

More than 2 million hectares of watersheds have no assigned resource managers (illustrated as open access in Figure 1), and are, thus, most vulnerable to degradation. Tenure of these areas must be transferred to the community or communities closest to the watershed for their protection and rehabilitation. The communities would need to be assisted in identifying the best land use and means of rehabilitation of the watershed.

In each of these communities, Watershed Councils, similar to the DA’s Fisheries and Aquatic Resources Management Council (FARMC), must be organized. The council would act as an advisory group at the barangay level

<sup>4</sup> There are approximately 3,430,000 hectares under CBFMA and 2,520,000 hectares under CADCs.

<sup>5</sup> Aside from the DENR, other government agencies include the National Power Corporation (NPC), National Irrigation Association (NIA), Philippine National Oil Company (PNOC), the military (around 130,000 hectares), and the Special Forest Land Uses (110,000 hectares).

<sup>6</sup> Around 560,000 hectares are under TLAs, 700,000 hectares under IFMAs, and 40,000 hectares under SIFMAs.

primarily responsible for decision making on issues related to the watershed, determine user fees, and handle conflict resolution on resource use. To provide technical advice to the community, a village forester would need to be identified from among the local residents and trained with basic skills in forestry.

*Technical assistance.* Transferring the responsibility of watershed management to the resource users and to the LGUs will create a conducive implementing environment that may lead to the adoption of relevant policy and legislation and the securing of budget and human resources.

Since much of the areas given to upland communities are still *de facto* open access areas, it is important that communities be organized to a level of self-governance where they are empowered to assert their rights over the resource and deliver on their responsibilities.

In addition, the communities will need to have alternative livelihoods that will not only reduce pressure on the land, but also allow them to generate income and raise their standards of living as they move away from forest dependency. The more advanced communities, in terms of resource management, will need training and assistance in enterprise development. These activities are already covered by the DENR's CBFM program.

The LGUs would need technical assistance on forest land use planning and rehabilitation, and advice on required ordinances for rehabilitation and protection. Linkages with and access to potential sources of technical assistance and funding should also be facilitated.

On the other hand, the government agency counterparts will need to be engaged in discussions on how best to ensure technical and logistical support, finance the activities agreed upon and benchmark results to measure the effectiveness of the activities outlined in an agreed MOA. Annual performance reviews could be drawn up and the results of their monitoring disclosed publicly, hence, acting as an incentive.

There is need for closer coordination with the DA, DOST, DOH, Department of Social Welfare and Development (DSWD), Quedan and Rural Credit Guarantee Corporation (QUEDANCOR) and

other agencies that have related programs for upland communities. Some coordination and linking efforts have been initiated to address technical capacity issues. The current leadership of the DENR has initiated co-management arrangements with some LGUs and has also initiated a MOA with the NCIP to provide mechanisms for assistance to the indigenous peoples (IP) communities. The DENR and the Department of Agrarian Reform (DAR) have close tie-ups due to their joint implementation of the Comprehensive Agrarian Reform Program (CARP) in the uplands.

*Streamlining the institutional set-up to support a changing mandate.* The CENRO, the primary service provider to the LGUs and communities, must be streamlined to improve its service delivery. The staff of these frontline offices of the DENR must be reoriented and retrained based on the proposed institutional directions. This training must take place in the context of the overall training program that would be designed for DENR's human resource development, skills upgrade and training.

For CENROs, emphasis should be on improving the provision of technical and livelihood services to the LGUs and community organizing and development to the communities. The DENR has only 101 trained community organizers, but more than 5000 upland communities require their services. There are even fewer CENRO personnel trained in providing livelihood options or enterprise development.

Given the tight fiscal situation of the government and the fact that there is likely going to be a downsizing of the civil service, other mechanisms for providing technical support and assistance should be explored. A model being employed by the *EcoGovernance Project* of the United States Agency for International Development (USAID) is the engagement of short-term consultants and advisers to provide the required assistance needed by the LGUs.

It may be possible to institutionalize this model by using the network of environmental educators in local academic institutions to act as consultants and advisers. However, as would be the case for the consultants, the teachers drawn on must be compensated for their services.

To support this approach, a website could be developed primarily to provide know-how and cases of best practices on watershed management to LGUs and communities. An alternative option would be to tie up with existing NGOs which are skilled in local community work.

*Move from de-concentration to devolution.* Integrated watershed management will require the transfer of authority and responsibility to the LGUs. Although the LGUs were given authority over local watersheds (e.g., the issuance of local ordinances and the processing and endorsement of CBFM beneficiaries), the final decision as to the management of the watershed is still under DENR'S supervision, control, and review as stipulated by the LGC.

Given the many other mandates of the DENR, a large number of implemented decisions are often not taken in time, with the effect that implementation is slowed down. Thus, the LGUs do not view the development of natural resources as one of their key concerns and, consequently, the issues do not get priority funding.

The reluctance of the LGUs to fund the activities and/or borrow for them is partly due to the fact that natural resources do not yield results quickly enough, particularly if one considers the three-year terms of the LGU mayoral administration.

The current leadership of the DENR recognizes the advantages of giving more responsibilities for natural resource management to the LGUs under the principle of subsidiarity, that is, that the most important decisions on NRM must be done on the lowest level possible.

The need to separate the development of policy, setting of environmental standards, provision of technical assistance to the LGUs and communities, as well as to conduit funds for community projects and monitoring and evaluation to the LGUs has likewise become accepted. What is needed now is a practicable transitory process with milestones and expected outputs at the various levels, all the way to full devolution.

This transitory framework should include in the proposed Sustainable Forest Management Act a similar provision found in the Clean Water Act (Republic Act 9275). This provision allows for a

case-by-case devolution of authority to LGUs with proven track records of performance and avoids those that do not have the enabling orientation and commitment to pursue sustainable integrated watershed management.

Given the public goods nature of natural resources and the large externalities affecting their management, it is important to have a phased devolution. Within the phased approach, it will be important to start with those LGUs that are willing to assume the responsibility, allocate sufficient human and financial resources, and be accountable for resources management, while building the capacity of the LGUs for subsequent devolution.

The DENR has indicated a willingness to devolve, starting with the small island provinces of Siquijor, Masbate, Biliran, Romblon, Marinduque and Batanes, followed through in a subsequent phase by the larger island groups, such as Cebu, Catanduanes, Mindoro and Panay. To start small and expand later is logical, but in the current environment of fiscal tightness, there is need to accelerate, in a prioritized manner, the devolution process beyond a few small LGUs to ensure a more rapid scaling-up.

However, it is important to note that for some activities, devolution is not possible and these will need to remain under the management of government. These activities transcend municipal borders, have a broader impact (hence, the need to be planned for on a national scale), and/or require coordination among actors that can only be achieved at the central level.

*The integrated river basin approach and basin authorities.* Integrated river basin management is complex, can be slow and requires ownership on the part of all stakeholders. To be successful, it must be supported by an institutional structure that promotes implementation through partnerships and it must have a decision-making board representing all stakeholders.

Day-to-day operations would then be run by a small secretariat headed by a general manager or executive director. The authority would coordinate and work closely with the Regional Development Committee (RDC). To avoid building a heavy bureaucracy, partnerships must be established with other knowledge centers such

as schools and other government agencies to provide the technical requirements.

The strategic role of an authority with adequate corporate powers would be to ensure its self-sustaining capabilities. The body should develop user-fee systems, negotiate and manage the collection of water fees from users, and utilize these fees to finance operations and management of the river basin and watershed resource. The funds collected would be plowed back to the resource managers to further improve the quality of the watersheds.

To develop a coherent river basin approach, it will be important that a reliable baseline on the quality and quantity of resources is established. Technologies are being developed, such as that developed by a Japanese NGO, to assess the quality of watersheds using satellite photos. Such a technology could be used to develop operations and maintenance strategies for upstream and downstream users, which could encourage better community management of watersheds. In setting up such authorities and managing resources in the Philippines, a few key activities must be observed:

- Develop management plans for the major watersheds. These plans are to be developed in partnership with all concerned stakeholders. The DENR, LGUs, communities and other groups working in the watersheds would be responsible for the preparation of the plans. The plans developed should be easy to translate into action plans, with clear guidelines on the inputs, tools, human and resource requirements. They should have performance indicators and milestones to determine implementation success. They should also be flexible enough to allow for additions into the master plan to accommodate the dynamic situations in river basins.

The action plans could then be the basis for an annual review and accounting of the performance of the resource managers. The degree of accuracy of the plans developed will be tempered by the methodology used to determine the availability of resources. Thus, the DENR will need to invest in more satellite and/or aerial photos to carry out the mapping.

- Strengthen institutional arrangements. The institutional set-up must be reconsidered to integrate watershed development into local development strategies. To streamline implementation of watershed management may require integrating the 32 agencies involved in water management into one agency, under the DENR/National Water Resources Board (NWRB). Where combining the two agencies is not feasible, good coordination between the partners must be ensured. A bill has been drafted for an Integrated Water Management Act (IWMA), but this must be reviewed to include necessary provisions for watershed management.
- Provide incentives for good governance. Providing incentives to communities and LGUs that are meeting their commitments to the program will be critical for sustainability. A dynamic source of funding for the incentives would be the water fees. One form of incentive scheme is similar to that being piloted in the LLDA through LISCOP. In this instance, the loan for LLDA is converted to a grant by the government if they attain their objectives.

With the government's tight fiscal situation, it is unlikely that LGU incentives could take the form of increased internal revenue allotments (IRAs). Hence, innovative methods, such as improving ability to access concessional loans for LGUs that have delivered the basic environmental services to their communities, could be explored.

- Generate adequate funding for river basin management. Rarely do watersheds generate adequate and sustaining fees for their management. Despite this, it is important to establish a legal basis for water fees, which should generate scarce funds as well as increase ownership. The implementing rules and regulations (IRR) of the recently signed EO 318 can make this possible. However, it will take some political will to impose the fees on the large water users in the cities and urban centers.

In addition, to lay the basis for the levy, it may be useful to carry out some advocacy for the concept of water as an economic good.

Experience shows that cities charging full costs for their water have encouraged conservation of the resource. The need to pursue rational pricing of raw water is clearly articulated in the previous and new Medium-Term Philippine Development Plans (MTPDP).<sup>7</sup> Support from the economic managers can be the basis for advocating the concept of water as an economic good. The question of access by the poorer communities would need further attention.

- Reclassify forestlands and take into account the rights of indigenous people. Reclassification of forest lands is becoming inevitable, particularly those that are 18 degrees and above. Many of these areas remain forests, despite having been converted to agricultural lands. Reclassification, which would need to be done through Congress, would allow for better resource management planning and use and contribute to reduced degradation. This is of primary importance given the pressure that most of the resources are enduring from excessive use. Poor classification has negative consequences on the resources.

Two recent cases illustrate the difficulties in managing such issues. In the first case, an aquifer from Tagaytay to Paranaque was identified during the American occupation as a sufficient water source for the future expansion of Metro Manila. Instead, the area was classified as an industrial zone; today, this is causing serious pollution of the shallow aquifers. A second case relates to the Green Circle Corps' (formerly the Gopuansoy area) plan to convert a virgin forest of more than 30,000 hectares into a theme park and a new city facing the Pacific.

In addition, reclassification efforts will need to take into account issues such as the Indigenous Peoples' Rights Act (IPRA),

which gives full private ownership of forestlands to indigenous people. To do this adequately, it will be important to refer to the Land Use Code of the Philippines. Once the reclassification is completed, appropriate land management technologies must be applied to curb erosion and other land degradation related issues.

- Develop a land use policy and prepare land use mapping. The Philippines has yet to develop a land use policy to guide a truly integrated ecosystem approach. Consequently, accurate land use maps are lacking although the recent purchase of the satellite pictures of the country is a good start to developing such maps. A concerted effort will need to be made to ensure their availability to resource managers.
- Consolidate all databases and lessons learned. All information acquired from representative cases and good practices of watershed management can be prepared as training modules. The DENR has been assisting LGUs nationwide in developing municipal coastal databases which could be used as the basis for their planning and management. This would facilitate transfer of technology and know-how. The prospective trainers and consultants can use these as guideposts. This has already been effectively done for the coastal communities.

The CRM secretariat at the DENR, the Coastal and Marine Management Office (CMMO), must be more proactive in its role as knowledge manager and provider of technical assistance. The Environmental Research and Development Bureau (ERDB) must also be reoriented so that their activities become inputs to local level management decisions. Overall, technical capacity-building staff is more needed in the field.

## **Integrated Coastal Resource Management**

With its 7107 islands, the Philippines covers an area of 287,000 square kilometers of coastal waters and the total coastline stretches to about 17,460 kilometers. Three distinct production systems are found in the coastal and marine areas.

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<sup>7</sup> "Pursue water pricing to effect efficient allocation and conservation. Raw water is not currently priced to reflect its real value leading to wasteful practices and allocations that are not in the best interest of the country. Water should be priced and allocated according to its economic value so as to attain efficiency and sustainability in the development and allocation of the resource." (MTPDP 2004-2010)

The first, coral reefs, account for more than 400 species that are endemic to the country and they provide income and livelihoods to the coastal communities. At least 62% of the Philippines' population live along coastal areas, and 56% of the 1537 municipalities are coastal towns. The relatively large proportion of the coastal population puts enormous pressures on coastal resources, especially the coral reefs.

These reefs are under continuous threat from illegal fishing with the use of dynamites and sodium cyanide, careless throwing of boat anchors, ship grounding, unregulated tourism, coral mining, and dredging. Considerable damage is also being caused by soil erosion, industrial pollution, and fertilizer and pesticide runoff.

The second production system is made up of the mangrove forests, which provide habitat to fish, shrimps, mollusks, crabs, and fry. Estimates show that the mangrove areas have been reduced from the 4,500 square miles estimated in 1900 to less than 247,362 hectares shown in 2002. The loss was most rapid from the 1960s to 1970s because of the government's policy of encouraging the conversion of mangrove areas to fishponds and aquaculture. The opportunities for employment in the newly-opened aquaculture businesses soon resulted in a rapid build-up of human settlements.

The third production system represents the sea grass and algal beds, which are also important fish habitats. The sea grass and algal beds mainly filter soils entering from the erosion process and stabilize bottom sediments during storms.

The country possesses the extremely rich biological diversity of the Austro-Asian region, where at least half of the world's reefs thrive. The stretch from Palawan to the Sulu Seas has been identified by world-renowned scientists as one of the few biodiversity sites on the planet that "should be preserved at all costs." Despite this, it is estimated that only 24% of these resources are in excellent condition. Sea grass and algal beds have likewise declined in area and quality. These biodiversity losses translate to a reduced catch for the municipal fishermen, pushing them into a spiral of poverty and environmental abuse.

Initiatives such as those of the DENR-USAID's Community Resource Management Program (CRMP) and the DoF-World Bank's Community-

Based Resources Management Project (CBRMP), which assisted LGUs and the communities to become resource managers, attempt to reduce the continuing degradation.

Some of these communities have become self-sustaining marine resource managers. Mayor Josephine Jumamoy of Inabanga, Bohol, one of the project beneficiaries, said that the average fish catch per fisherman has improved from 2 kilograms to 4 kilograms. New species of fish and marine organisms have surfaced in the area, the incomes of small fishermen have increased, and fishery laws are now being followed.

Any integrated coastal management plan to be developed must incorporate lessons learned from the experience of similar projects. In both the CRMP and CBRMP, community organizers empowered POs to identify the problems and develop solutions where they are key participants. The POs were also assisted in developing their networking skills to link up with outside resources and were taught to be conscious about the transparency, accountability and sustainability of their action plans.

In addition, the LGUs were given technical and planning capabilities to determine what needed to be done. Municipal ordinances were passed. Local officials led coastal patrols and set up various advisory and oversight councils. Sustainability was ensured through the program's focus on the participatory approach in all activities.

These experiences also highlight the widest gap in the current coastal situation: limited LGU capacity. While the mayors have been given full authority as resource managers under the LGC and Fisheries Code, they are practically left to their own devices. They manage these resources without any organized support. To fully develop integrated coastal zones management, the following must be done:

- Provide LGUs with relevant technical capacity to manage their coastal resources. The CRMP and CBRMP experiences have shown that when LGUs are given adequate know-how and orientation, they can achieve outstanding results. The DENR, together with the LGUs, will need to work on institutionalizing this support system through

the passage of the pending CZMA which integrates support to the LGUs. This law will also clarify conflicts in resource use and policies, strengthen the LGUs' capacity to manage their coastal resources, provide mechanisms for the transfer of required technologies and management skills for CRM, and authorize the drawing up of tenure instruments and other stewardship arrangements in favor of communities.

- Expand the coverage of CRMP to other coastal municipalities. Of the 832 coastal towns, only about half have plans and only about a hundred have reached the level of best practices. The goal is to bring at least half of the coastal towns to best-practices level with all municipalities having an NRM plan for their coastal areas. From this level, the program would then expand on its own momentum to cover the rest of the municipalities.
- Establish a network of resource and knowledge centers for coastal LGUs. Institutionally, it may be necessary to expand the CRM (now the CMMO) secretariat in the DENR and develop it into a more formal coordinating body. Today, the secretariat is the keeper of the lessons learned from the CRMP and other related projects, but it only consists of a skeleton staff without the capacity to reach out and develop these knowledge networks. The CRMP secretariat could be increased to include retired professionals and science teachers residing close to the LGUs. It could then systematically transfer the know-how to the LGUs.

In CBRMP, the local CBRM municipal team is tasked with collecting and consolidating these experiences. The team makes sure that these lessons are included in the local development plans. The success stories from the CRMP and CBRMP should also be made available over the web, including the plans and strategies that made them possible.

- Conduct an inventory of current land use of the open access areas. Inventories will be particularly important for the areas that are considered open access, such as the salvage

zones (20 meters to the shore from the highest point during a high tide), which are under considerable pressure. Management plans need to be developed, and such coastal plans should cover protection of mangroves, sea grass and coral reefs; land-use zoning; ensuring water quality for aquaculture; and clear zoning for industrial activity, including mining and dredging.

Where there are squatters, it will be important to determine the best manner of relocating them to reduce pressure on resources and keep the salvage zones public, as declared by law. An inventory of abandoned and unutilized fishponds is also needed so that they can be reclassified back to forestlands (mangrove). Guidelines on ecotourism should also be included in the plans.

Most important, any inventory activities carried out should reflect the need to take into consideration the selection of priority areas for conservation, as required by the Wildlife Conservation Act, under the guidance of the Ramsar development policies<sup>8</sup> acknowledged by the government.

- Develop a platform for providing sustainable livelihood for the coastal communities. To better plan, monitor and assign fishing rights, as well as to develop good management techniques during and outside the fishing period, a comprehensive coastal map of marine habitats across the archipelago must be prepared. With such data, the LGUs would have something definite to offer private sector investors interested in tapping coastal resources.

For example, the increase in fish catch in Inabanga, Bohol was a result of the use of better management techniques, following the coastal inventory and mapping efforts done by BFAR. In Alaminos, Pangasinan, the new mayor is using the research data from the

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<sup>8</sup> This refers to the Convention on Wetlands adopted on 2 February 1971 in the Iranian City of Ramsar, on the southern shore of the Caspian Sea. It covers all aspects of wetlands conservation and wise use, recognizing wetlands as important ecosystems for biodiversity conservation in general and for the well-being of human communities.

University of the Philippines Marine Science Institute (UP MSI) to declare a buffer zone around the town's famous Hundred Islands. The zone will serve as a cordon of protection around the islands, allowing the destroyed mangroves and coral reefs to re-grow. At the same time, the land will also be parceled out to families and communities for raising oysters as a livelihood option. A public corporation is being organized to help the communities market their produce.

In Socorro, Surigao del Sur, a local fisheries and environment code based on extensive resource inventory and assessment guides the LGU in its coastal and marine resource management activities, which include aquaculture zones, fish area leases, and ecotourism.

On a bigger scale, New Zealand authorities mapped all of the country's coastal zones two decades ago. As a result, they have been able to develop management options that allowed them to multiply by more than ten times the production of their fish industry on a sustainable basis. This was possible because they knew exactly where the schools of fish were hatched, the routes the fish took to grow out areas, and the quantities during the various seasons. The authorities could chart out very precisely fishing sites and seasons, allowing for better management.

Overall, it is important to note that although the principle of promoting alternative livelihoods as a way to decrease pressure on natural resources is a good one, it is important to make sure that livelihoods promoted should link up with improved NRM as best as possible.

As such, selection of livelihoods must take into consideration the skills and knowledge of local communities. Where possible, making existing, viable, non-destructive livelihood activities more sustainable should be a first choice. For example, when working with coastal communities it is better to promote marine-based activities rather than land-based activities. This may require some research to create better understanding of improved use of existing resources.

- Provide a system of incentives for LGUs. In addition to providing LGUs with the technical know-how in managing resources, there will be a need to develop incentives to meet coastal management objectives and increase the sense of ownership and management sustainability for these resources.

A potential incentive could be the use of the coastal resource management monitoring and evaluation system to classify coastal towns according to their levels of proficiency and track record in coastal planning and management. Budget resources would then be allocated accordingly. This would have the effect of encouraging those with a good track record to do better, and those with potential to become future implementers.

An alternative incentive could be improving the access of LGUs to patrol boats, once they meet the basic requirements of, for example, mapping *banca* lanes in fish sanctuaries, seaweed production areas, mangroves, sea grass and coral reefs. The incentives could be upgraded to the funding of livelihood options for LGUs that move up the performance ladder.

Another alternative incentive could be improved access to financing of demand-driven activities such as those funded through the CBRMP. Regardless of the incentive formula selected, careful crafting is needed to ensure fiscal soundness.

## **Community-Based Protected Area Management**

The Philippine government is a signatory to the 1992 Convention on Biodiversity (CBD) and the Convention on the International Trade in Endangered Species of Flora and Fauna (CITES). In 1992, it passed the NIPAS Act, which provided the legal framework for the establishment of protected areas (PAs). Since the passage of the law, the DENR has surveyed and mapped out 244 PAs. Of these, five PAs have passed congressional action, the President has proclaimed 78, while the remaining 161 have yet to be declared as national parks.

The Philippine Biodiversity Conservation Priorities Program (PBCPP), drafted in 1997 and updated in 2000, identified a total of 106 Conservation Priority Areas (CPA) considered of extremely high priority. A process to mainstream these priority sites in the plans and programs of the government, donors, grant agencies, private sector, LGUs and environmental NGOs has begun. The DENR has conducted consultations with various sectors, starting with its own bureaus, to share knowledge on the components proposed in the program.

Parallel to the scientific review on setting priorities, the DENR-PAWB conducted an assessment of its internal capacity to manage the protected area system under the NIPAS framework. Its no-holds-barred report, dated December 2003, concluded that the NIPAS Act has not been very effective.

The review recommended the strengthening of policy and implementation; decentralization of operational authorities from the central office to the PAMBs; and making the processes participatory and more demand-driven. There were also suggestions on how efficiency could be obtained in the implementation of the NIPAS Act, including more community participation. Additional comments include the following:

- Complete the classification of PAs. This refers to the classification of the 132 priority PAs that overlap with the identified CPAs and the 108 PAs (94 terrestrial and inland water and 14 marine) that are not yet covered by NIPAS. The 112 PAs that did not overlap with CPAs should be reassessed and, under a different management regime, separated from those that have no significant biodiversity but have historical, cultural and anthropological values, to ensure complementarity with proposed management proposals. Those areas that cannot be justified scientifically as protected areas should be de-listed. The list generated should reflect the priority areas selected for implementation in the short, medium and long term to assist the DENR in the planning and budgeting process.
- Decentralize the implementation process to give the PAMBs more autonomy. Presently, the IRR of the PAMB requires that every

decision, from appointments of PAMB members to the release of IPAF funds, be made at the DENR central office. The process restricts the ownership and initiative of the PAMB and its local supporters. As such, the PAMB is looked upon as a DENR council rather than an autonomous unit drawing strength from its local roots, as envisioned by the NIPAS Act.

Local activities like community organizing, enforcement, monitoring, protection, and information dissemination should be decentralized to the barangay-level PAMB. This would improve the interaction between the communities and the administration, hopefully fostering greater ownership. In addition, this has the effect of bringing governance to the lowest political level.

The IRR was reviewed and a revised version was made available for public consultation before finalization. The consultation process should have included discussions with both the public and private sectors. The final version of the revised IRR was expected last February or March 2005.

- Strengthen the PAMB. In addition, it will be important to increase the cross-sectoral agency representation in the PAMB, including LGUs, to provide a policy tool across ecosystems and landscapes, which is cognizant of the LGC, NIPAS Act, etc. Following the update of the IRR for the NIPAS act, PAMB personnel will need to be provided with more capacity-building opportunities to enable them to function more effectively. Local level legal expertise needs to harmonize and execute NRM laws, which will need to be reviewed and provided as necessary.
- Empower communities. Once protected areas have been delineated, with participation from the communities, those communities living around protected areas represent the core management structure for the PA system. They represent a key factor to the sustainability of programs implemented in the protected areas, but only if they are included in the planning, implementation and monitoring of project activities.

This was the lesson learned from the CPPAP, one of the foreign-assisted projects for key PAs. Most of the PAs did not attain sustainability because of limited participation from communities around the protected sites.

Empowerment also dictates that there is social preparation, community organizing, and appropriate technical assistance that is accessible to the communities. As they begin to work and plan together, the communities will need to have access to alternative livelihoods that result in decreased pressure on the resources.

The type of livelihood programs will depend on the community, access to financial resources and ability of the community to develop these options into viable activities that generate income. Cooperatives would be one possible option.

- Allow the LGUs to be more involved. Lessons learnt from previous work in protected areas show that PAs have a better chance of success when they have the support of LGUs in their areas of location. Where ownership has been high, the LGUs have made financial contributions from their budgets for PA operations.
- Professionalize PA management. To improve the quality of management of the protected areas as well as give more recognition to the work by the PA managers, they should be given similar opportunities to advance in their careers, as in the case of scientists at the DOST. Here, the scientists do not have to move up the administrative ranks to be promoted. Instead, their advance is based on the quality and quantity of their scientific work. They earn salaries commensurate with corresponding levels of similar ranks in the administration.

A similar system would encourage PA managers to work in the parks system for longer periods without losing opportunities for advancement. With the recent launch by DENR of the Development Action Plan and a year-long master's degree program for its PA managers, it is even more important that

trained PA managers have a career path, as with limited options, they will eventually be taken out from the parks system to become officers of the CENRO or Provincial Environment and Natural Resources Office (PENRO).

- Improve the availability of baseline information. Use the species conservation plans and the priority areas as the framework for both formal science and indigenous knowledge research, and disseminate the results for better access by the different stakeholders.

The PBCPP and the National Biodiversity Strategy and Action Plan (NBSAP) contain valuable information on baseline indicators and strategic priorities that could serve as a starting point. The information could be used to influence policies developed to manage PAs.

- Provide funds for Protected Areas Management (PAM). When the NIPAS was developed, it was envisioned that a large portion of the operating funds would be generated from donations from donors and the private sector and from funds generated from fees. For this reason, the law did not provide for the allocation of funds for PA implementation; as a result, the Department of Budget Management (DBM) does not allocate any funds for NIPAS sites. The idea was that funds would be generated from access fees, donations, leasehold payments, and taxes from sales of products from the area.

However, this did not happen; instead, PA donor support has gone to activities around PA development and management rather than supporting IPAF. Thus, not only are funds insufficient, but the fees collected must first be remitted to the National Treasury before they are reallocated back to the parks at levels which are generally much lower than those needed for adequate development.

This arrangement has often left the parks without adequate financing for operations. PAMBs and PASUs have often had to borrow money from the region's budget for

information, education and communication to keep their operations running.

But the bigger issue is that the protected area system has not developed a national constituency from which it can draw self-sustaining support. PAWB and DENR are now working to address this so that the share of the PAMB revenues can be retained at the local level and only that which represents the share of the national government will be remitted to DBM.

The IPAF Guidelines have now been reviewed and a revised version has been submitted to Congress. In the revised version, it is expected that the process of submitting the IPAF to the National Treasury will be endorsed by the RED instead of going through the PAWB central office—at least in the short term. In the long term, it is expected that only 25% of the IPAF will be submitted will be remitted to the National Treasury, while 75% remains with the PAMB.

Even with user-fee payments, total self-sufficiency of the national parks will not happen in the near future, and DENR will need to develop alternatives to increase funding. One option is to develop modules that encourage the private sector to invest or manage the parks on an almost self-sustaining basis. This may need to be coupled with the development of a concept of philanthropy for national parks similar to that found in developed countries.

The DENR needs to promote to the public the value of PAs and biodiversity, especially as many may still consider biodiversity conservation and protected areas esoteric issues. Local communities need to understand that there is a connection between good management of biodiversity and protected areas and improved standards of living for the communities.

Without this, it will be difficult to develop a constituency for PA management and biodiversity conservation. With a broad constituency it would be easier to get the attention and support of decision makers, both local and national.

- Establishment of performance standards. The DENR, together with its partners, needs to develop performance standards, based on which the mandates of the PAMBs and PASUs, LGUs, and the DENR itself can be monitored. These indicators would be the basis for periodic monitoring and evaluation. The indicators will also need to follow the logic of the final MFOs.
- Strengthen partnerships with other government agencies. Although not prescribed in existing guidelines, PAMBs invite the participation of other government agencies as a matter of course. As a result, they have benefited from the relationships they have built, such as in infrastructures from the Department of Public Works and Highways (DPWH), irrigation systems and plant technologies from the DA, ecotourism in El Nido under the Department of Tourism (DOT), distribution of public lands from the DAR, educational tools and participation of schools in PA programs from the Department of Education (DepEd), alternative livelihood options from the Department of Trade and Industry (DTI), and new technologies and fund support from the DOST.

## Annex 1: Implementing the NIPAS Act: A Glance at the Implementation and Governance

Resources/Parameters	PROTECTED AREAS with PAMBs
<b>Responsible Agency</b>	PAMBs
<b>Mandate</b>	RA 7586 or the NIPAS Act
<b>Program</b>	<ol style="list-style-type: none"> <li>1. Conservation of biological diversity should be ensured.</li> <li>2. Partnerships between the DENR and other interested parties, including indigenous peoples should be promoted and established.</li> <li>3. Park establishment requires a Presidential Proclamation and a Congressional enactment and final demarcation of the area.</li> </ol>
<b>Implementation and Governance</b>	<ol style="list-style-type: none"> <li>1. The NIPAS-NPPSC, chaired by the Secretary, is tasked with enhancing policy and program coordination.</li> <li>2. The Secretary reports to the President for transmission to Congress the status of the NIPAS, regulations in force, and other pertinent information and recommendations on an annual basis.</li> <li>3. The PAWB, guided by the Undersecretary for Environment and Research, plans, coordinates, monitors and provides technical assistance.</li> <li>4. The IPAS technical coordinating committee at the PAWB provides coordination among DENR programs.</li> <li>5. The PAWD coordinates and monitors area management and wildlife resources conservation in the region.</li> <li>6. The PAMB, chaired by the RED, enforces policies, rules and regulations and represents the interest and concerns of local and indigenous communities.</li> <li>7. The PAMB: (a) allocates the budget, funds proposals, decides on planning, protection and administration matters based on the General Management Planning Strategy; (b) monitors and evaluates park personnel, community and NGO activities on biodiversity conservation, socio-cultural and economic development, and reports to the NPPSC and the IPAF board.</li> <li>8. The PASU, the DENR site manager, performs administrative and regulatory duties. The PASU also acts as seizure officer; recommends to CENRO disposal of seized items; issues special use permits; recommends issuance of certificates of land classification, certificates of management zoning classification, certificates of origin, discharge and transport permits, and other permits for natural resources and other products collected/gathered from the area; recommends the issuance of cutting permits with prior clearance from the PAMB to manifested planted trees in buffer zones for volumes of 5 to 20 cubic meters; and helps review the EIS or EE of projects proposed to be implemented.</li> <li>9. The PASU prepares and recommends for PAMB approval the Annual Work and Financial plan and reports to the PENRO and PAMB regularly.</li> </ol>
<b>Issues and Concerns</b>	<ol style="list-style-type: none"> <li>1. NIPAS Act may not be as responsive to the needs of the program, based on ten years of implementing the law.</li> <li>2. Not all protected areas have PAMB.</li> <li>3. PAMB effectiveness is not optimized. Membership is not always based on qualifications and there is a lack of conflict resolution mechanisms to resolve park issues.</li> <li>4. There is no formal intensive training for PA managers and no career path or professional development for the PA managers.</li> <li>5. IPAF is not optimized to provide support funding to PA.</li> <li>6. There are too many sites on the pipeline for proclamation as PAs.</li> </ol>

## Annex 2: Actions to be Taken Per Sub-sector, Prioritized by Time Horizon

### PRIORITY AREA: INTEGRATED COMMUNITY-BASED WATERSHED MANAGEMENT

<b>INSTITUTIONAL REFORMS Short Term (Up to 2007)</b>				
	<b>Targets</b>	<b>Performance Indicators</b>	<b>Action Plans</b>	<b>Lead Agency</b>
<b>Streamline DENR</b>	DENR streamlined based on new needs or mandates, provisions in integrated water management bill and SFM bill	Documentation, proposing the streamlining of the bureaucracy prepared and supported by an EO and DAO.	Review policies/mandates (e.g. EO 192) and match review with new needs (e.g. devolution, streamlining agency, or watershed management) and staff mix, deploy staff where it is most needed	FMB/NWRB /DENR
<b>Strengthen Partnerships with Other Agencies</b>	More effective and cost-efficient management of the water resources by the 32 agencies using the river basin as the management unit; provided for in the Integrated Water Management Bill (IWMB)	All agencies involved agree on priorities and direction; agency working arrangements drafted; staff deployed, and incentives plan devised	Form a technical team from agencies directly managing water resources, define incentives for inter-agency arrangement with DENR as lead agency	FMB/NWRB /BSWM-DA/ NAMRIA/ NPC/NIA/ PNOC
	1.3 M ha. with improved management of watersheds and forestland areas by government corporations and military and civil organizations	Incorporation of watershed management and development plans in respective LGUs and CLUP; setting up of MENROs or watershed management councils; conduct of monitoring activities by a watershed management task force; conduct of watershed management planning workshop with LGUs, military and NGOs	Adoption of improved cross-sectoral watershed management with better performance standards using satellite images as a base line; review by functional cross-sectoral working group of the management plans of the proposed 1.3 M ha. of forestlands; improved organization of planning and budgeting processes for integrated management with DENR as lead agency	DENR, government corporations, military and civil organizations
	Resolution of policy conflict on the use of natural resources in CADC/CADT areas; provisions strengthened in the SFM Bill	Clearer guidelines developed and issued to facilitate consent in use of resources in CADC/CADT areas for commercial purposes, as in the case of private landowners	Based on existing MOA, strengthen dialogue between DENR and NCIP and develop a joint set of guidelines indicating clearer roles, functions and complementation	FMB/DENR
<b>Devolve and Streamline Staff Based on Watershed Client's Needs</b>	Comprehensive national watershed data located in NAMRIA	DAO promulgated, consolidated data adopted by DENR and NAMRIA and for resource accounting set in place and used by agencies concerned, staff in place	Draft provisions in the SFM bill, revise DAO 97-2 stating deadline to complete survey, execute region level accounting of natural resources, staff area of work based on client's needs	FMB/NWRB /BSWM-DA/ NAMRIA/ NPC/NIA/ PNOC

	<b>Targets</b>	<b>Performance Indicators</b>	<b>Action Plans</b>	<b>Lead Agency</b>
<b>Decentralize and Devolve – a Phased Approach</b>	Better managed watersheds or island ecosystems providing adequate water supply to households, irrigators and industrial users	Number of LGU development plans that include integrated watershed management in their plans for financing and implementation (demand-driven based)	Develop a strategy for supporting the devolution of management of watersheds; develop an incentive structure for LGUs to improve management of watersheds; develop monitoring system for community-managed watersheds, including the indicators to be monitored	DENR, LGUs
<b>Retool the CENRO and Establish Career Development Path for CBFM Personnel</b>	CENROs can: (i) accelerate the granting of security of tenure instruments to reduce areas of open access; and (ii) adequately support communities and LGUs in their management of CBFM activities, in particular providing the needed TA in, e.g., improved management techniques (upland/lowland), and livelihood and enterprise development aspects	Reduction in the backlog of CBFMA granting by 20% a year; increase in number of CBFM POs that have viable livelihood options by 20% every year; increase in number of watershed management councils to improve cross-sectoral planning and management of resources; and increase in number of LGUs with forest land use plans	Reorganize and strengthen CENROs based on its mandates and deliverables through training of personnel, linking of staff to local universities and NGOs to enhance their deliverables of social services; and establish career paths for Community Development Officers	Regional Offices, FMB/ DENR
<b>Deploy Village Forester while Retooling CENRO</b>	With increased co-management arrangements with the LGUs, there is potential to deploy locally based village foresters <sup>9</sup> for each CBFM and CADT sites	As part of the LGUs watershed/forestry development plan implementation arrangements, develop criteria for hiring village foresters, the cost of which would be included as part of the plan.	Include as provision in IRR of EO 318, draft DAO criteria for identifying and supporting village foresters; determine appropriate incentive plan; pilot plan in CBRFA and CADT/CADC areas; conduct advocacy work with LGUs	FMB/DENR, LGU, PO Federation
<b>Establish River Basin Authorities</b>	Establishment of River Basin Authorities (RBA)	Incorporated in the IRR of the Clean Water Act (CWA) and in the IWM and SFM Bills the creation of RBA with adequate authority to negotiate for payment of upland ecological services or water fees	Studies undertaken to assess experience, nuances and viability of RBAs, advocacy for the creation of RBAs; critical review of existing policies to support CWA, IWM and SFM in their congressional hearing	DENR, NWRB, LGUs, DILG

<sup>9</sup> POs can be trained as village foresters.

<b>INSTITUTIONAL REFORMS</b>				
<b>Medium Term (Up to 2010)</b>				
	<b>Targets</b>	<b>Performance Indicators</b>	<b>Action Plans</b>	<b>Lead Agency</b>
<b>Decentralize and Devolve</b>	Watersheds in major river basins devolved to LGUs under the guidance of RBA and community watersheds providing adequate water supply to households, irrigators and industrial users, island ecosystems under a stable ecosystem	Number of LGUs with good performance records taking over management of a % of the 18 major river basins (% to be assessed)	Continue the implementation of phased devolution of activities to LGUs of good performance; implementation of incentives awarded to LGUs with best practice based on agreed criteria	DENR, LGUs
	Improved management of CBFM projects	Number of LGUs (municipalities and provinces) participating in CBFM projects and co-management agreements; increased resource inputs of LGUs to communities to do NRM and WM	Broaden advocacy to increase LGU support to improving the quality of CBFM projects; assist the LGUs to review structure for service delivery to CBFM projects	DENR, FMB/CENRO, LGU
<b>River Basin Authorities</b>	River Basin Authorities institutionalized, lowland water users sharing cost of managing watersheds	Enhanced CWA, IWM and SFM bills and or EO to facilitate the creation of RBAs with adequate authority to negotiate for payment of upland ecological services	In addition to advocacy for the creation of RBAs in major and critical river basins, develop master plans for their implementation; implementation of an EO to support legal basis for RBAs in identified river basins; develop a system to determine water users fees for the RB identified	DENR, NWRB, LGUs, DILG
<b>Second Phase Retooling of the CENRO and Career Establishment for CBFM Personnel</b>	CENROs are now able to provide a large part of the TA assistance to CBFM communities, such as community organizing (CO), technical assistance, technology transfer, livelihood and enterprise development assistance	Number of CBFMA POs having viable livelihood and/or enterprise development projects; number of Community Development Officers established as career officers; number of CBFM projects with investment tie-ups with private sector	Continue to strengthen CENRO as extension arm of DENR; training and re-training of CENRO personnel to be more community sensitive; continue advocacy on CBFM as investment opportunities for private sector; and establish stronger linkages with DA in enhancing CENRO skills especially in livelihood and enterprise development	Regional Offices, FMB/ DENR

<b>Implement Plan to Strengthen EMB</b>	More responsive and strengthened EMB that is proactively supporting LGUs, the private sector and civil society	Draft plan is supported by an AO	Draft plan to shift EMB from a program approach to a function-based organization; separation of regulatory and policy offices; strengthen pollution monitoring and adjudication cases; EIS is impact-based; public disclosure of industry performance; hire needed staff	EMB/DENR
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<b>POLICY REFORMS Short Term (Up to 2007)</b>				
	<b>Targets</b>	<b>Performance Indicators</b>	<b>Action Plans</b>	<b>Lead Agency</b>
<b>Amend Relevant Sections in the Local Government Code</b>	Enhanced/amended LGC	Priority bill filed in Congress to amend the relevant sections of the code	DENR to review existing policy and provide options for amending/enhancing the provision in the LGC giving the final authority to the LGUs to manage the natural resources; resolutions from the league of provinces and municipalities endorsing the amendment sought	FMB/DENR
<b>Integrated Management of Watersheds – Unify All Laws Governing Water and Watersheds</b>	Revised Integrated Water Management Bill and its eventual passage reconciling provisions found in numerous laws and proclamations	Provisions for the unified laws drafted and endorsed by various NGAs; provisions incorporated in the revised Integrated Water Management Bill.	Set up technical team and codify all laws, AOs, circulars, etc., related to watershed management; draft provisions for incorporation into the Integrated Water Management Law, reconciling all laws governing protection and management of watersheds or water	FMB/DENR
<b>Integrated Management of Watersheds – Bring Together All the Key Players</b>	National Land Use Plan including the strategy using the watershed as a community-based ecosystem planning unit	Drafted strategy to hasten implementation of sustainable management of watersheds	Set up technical team to review the National Land Use Plan and draft strategy to implement DAO 01-99 using lessons from projects, e.g., WRDP and SPISP	FMB/DENR
<b>Integrated Management of Watersheds – Best-Use Plan for Open Access Areas and Unclassified Forestlands in the Watershed</b>	Continued classification of forestlands; designation of resource managers for open access forestland; associated land use policies defined	Guidelines completed and implemented; forest classification increased	Review current guidelines and experience and identify options to enhance classification of forestlands; draft land use policies and best-use plans for open access forestlands	NAMRIA/ DENR

	<b>Targets</b>	<b>Performance Indicators</b>	<b>Action Plans</b>	<b>Lead Agency</b>
<b>Integrated Management of Watersheds – Best Use of Grazing Areas in the Watershed</b>	FLGMAs allocated according to their best uses and aforementioned are provided for in the SFM Bill	Guidelines on management of grazing lands in watershed areas developed	Joint DENR-DA-NEDA research on FLGMA, preparation of guidelines, regional offices implement best-use policies	FMB/Regional Offices/DENR
<b>IRR of EO 318</b>	IRR of EO 318 provides a firmer policy environment for community-based management, private sector, and LGU involvement in all aspect of forestlands management	Community-based approaches prevalent in management of forestlands and watersheds provisions in the SFM bill	Working group to draft IRR incorporating suggestions from the NRM Way Forward Action Plan	FMB/DENR
<b>Passage of SFM Act</b>	Both Houses of Congress agree on provisions of the bill	Bill filed as a priority bill, and NAPC on board as champion of the bill	Review the SFM bill for gaps and insert updates; establish linkage with NAPC and seek their assistance to lobby SFM bill as priority; identify champion in Congress; recommend SFM bill inclusion as priority of LEDAC through its linkage with the President’s priority to ensure sources of water through watershed management	FMB/DENR/LGU/POs /WOOD INDUSTRY SECTOR
<b>Simplify Procedures for the CBFM Program</b>	POs can easily comply with CBFMA requirements for tenure instrument granting thereby improving sustainability of CBFMA activities	Increase in the granting of DENR’s target to reach at least 20% annually, or around 800,000 ha. in the second phase of implementation	Simplify requirements with more focus on PO maturity; enhance DENR field staff skills to work with POs mainly as facilitators rather than as regulators; DENR field staff providing demand-driven technical services to POs and LGUs	FMB/DENR
	Communities benefit from judicious implementation of the RUP	Viable enterprises built around resource utilization in the community, no recorded abuse of RUP	Grant RUP to ready communities; develop and establish indicators of community maturity to carry out watershed management; develop options for establishing alternative livelihoods for POs	FMB, Regional Offices, DENR
<b>Support and Guide the Drafting of the NEMA/PEPA</b>	Final draft carries the key provisions	Frequent assistance by the DENR to the technical committees in Congress	Form technical group to advise Congress on provisions of both bills; lobby for adequate funding of activities	EMB/DENR

**POLICY REFORMS  
Medium Term (Up to 2010)**

	<b>Targets</b>	<b>Performance Indicators</b>	<b>Action Plans</b>	<b>Lead Agency</b>
<b>Integrated Management of Watersheds</b>	Passage of IWM bill	Law responsive to current and anticipated future mandates on community-based integrated watershed and NR management, devolution and partnerships	Work with champions in both chambers and lobby for its passage, assist congressional committees	FMB/DENR
	Stable policy on integrated community-based watershed management with the RBA as the lead institution, water users' fee and transferable water rights. RBA located in the DENR	Insertion of pertinent provisions in IWM law; a special fund is set up to accommodate water users' fee payments	Work for inclusion of provision in IWM Bill, prepare IEC on bill	NEDA/FMB /DENR Policy Office/ DENR
<b>Simplify Procedures for the CBFM Program</b>	POs can comply with CBFMA requirements	20% of DENR's target under CBFM, around 800,000 ha./yr, is achieved; none or reduced backlog in applications for CBFM	Implement the simplified requirements for CBFMA granting	FMB/DENR
<b>Passage of SFM Act</b>	SFM bill enacted into law	Final deliberation by Congress	Continue lobbying for the SFM bill	FMB/DENR /LGU/POs /WOOD INDUSTRY SECTOR

<b>GOVERNANCE REFORMS</b>				
<b>Short Term (Up to 2007)</b>				
	<b>Targets</b>	<b>Performance Indicators</b>	<b>Action Plans</b>	<b>Lead Agency</b>
<b>Decentralize, Devolve and Provide Demand Driven Funds for ENR Project</b>	Number of watersheds managed according to their hydrological characteristics by LGUs with support and oversight by a river basin authority	Number of LGUs demanding local autonomy to manage their watersheds under the oversight of a river basin management authority	Draft guidelines following the provisions on the Clean Water Act granting financial incentives to deserving LGUs	FMB/DENR
<b>Provide Demand-Driven Funds for ENR Project</b>	Increased private sector participation in CBFM and PA programs	Partnership between the private sector and CBFM holders and/or PAs/ PAMBs, increase in park revenues and trust funds established for CBFM and PA program	Determine how to link CBFM and PA into the President's 10-point agenda especially in income and job generation; study global models of successful creative funding mechanisms such as trust funds, or package CBFM and PAs as investment sites for the private sector	FMB/Regional Offices/DENR/ Private financial Institutions
<b>Strengthen Transparency and Accountability of Resource Managers</b>	Clarified expectations between the various resource managers and the DENR; information on the status of forestlands	20% compliance by all parties to new performance, M & E and feedback systems within the next 2 years; provision of budget for purchase of updated data base and regular on-the-ground monitoring	Revisit agreements, identify and agree on new performance, M & E and feedback system using satellite images and aerial photos as base line for performance and the criteria and indicators for SFM; develop LGU performance rating and mechanism to improve local strategic planning	FMB/DENR
<b>Strengthen Transparency and Accountability of Resource Managers</b>	Enhanced public accountability by civil and military entities on the management of their respective forest reservations, strengthening transparency and accountability	Percentage of civil and military reservations providing public information on the status of the NR in their respective areas	Form a working group composed of the military, NPC, NIA, PNOC and DENR to evaluate the status of the NR in their areas and agree on the best management for their respective areas, use aerial photographs or satellite images as baseline	FMB/DENR
<b>Strengthen Transparency and Accountability of Resource Managers</b>	Improved working relations between the CBFM holders and their respective CENROs and PENROs	25% of CBFMAs have new agreements on performance, M & E and feedback system within the next two years	DENR and CBFM holders review, identify and agree on new M & E, performance, and feedback system	FMB/DENR

**PRIORITY AREA: INTEGRATED COASTAL RESOURCE MANAGEMENT**

<b>INSTITUTIONAL REFORMS Short Term (Up to 2007)</b>				
	<b>Targets</b>	<b>Performance Indicators</b>	<b>Action Plans</b>	<b>Lead Agency</b>
<b>Provide a System of Incentives to LGUs and communities</b>	Viable coastal management plans developed and implemented by LGUs and coastal municipalities	Number of LGUs implementing updated management plans; number of LGUs with functional M & E systems to collect data for updating management plans; passage of council resolutions delineating municipal waters as determined by NAMRIA; number of LGUs receiving Galing Pook awards or other awards recognizing performance	Based on the CRMP rating system, assess number of LGUs with potential for adopting ICRM and determine the type of TA needed; develop incentives for encouraging improved ICRM at the LGU and community level	DENR/DA/ NEDA/LGU
<b>Provide the LGU the Technical Capacity to Manage their Coastal Resources</b>	Technically sound National Integrated Coastal and Marine Management Strategy (NICMMS) implemented to support LGUs and communities	Number of LGUs receiving technical assistance from NGAs, e.g., NAMRIA, to delineate coastal waters; preparation of documentation of best practices in coastal management compiled for use by LGUs; develop a coastal resource database in DENR field offices with cooperation of LGUs and communities	Formation of inter-LGU alliances to manage neighboring coastal waters, e.g., small island CRMs; formation of an inter-agency working committee to draft NICMMS as an interim measure prior to the passage of the Coastal Zone Management Act and resolve conflicts in resource use, clarify policies, allow tenure instruments and control pollution from the uplands	DENR/DA/ LGU/PNP/ Coast Guard
<b>INSTITUTIONAL REFORMS Medium Term (Up to 2010)</b>				
<b>Provide the LGU the Technical Capacity to Manage their Coastal Resources</b>	Province-wide, with larger islands having CRM programs, coastal resources stabilized and recovering	Number of LGUs implementing coastal management plans; delineation and inventory of coastal resources at least 50% completed; number of LGUs having access to sufficient TA on coastal management	Continue advocacy for improved CRM; improve M & E to track performance of LGU and community management of CR; continue the development of an incentive system to encourage broad uptake of good practice CRM	DENR/DA/ NEDA/LGU

<b>POLICY REFORMS</b>				
<b>Short Term (Up to 2007)</b>				
	<b>Targets</b>	<b>Performance Indicators</b>	<b>Action Plans</b>	<b>Lead Agency</b>
<b>Provide the LGU the Technical Capacity to Manage their Coastal Resources</b>	Substantial number of coastal zones under improved management	Key provisions in the Fisheries Code (and also identified in NICMMS) drafted for the development of IRRs to ensure their implementation, e.g., those declared as overfished areas, licensing of fishers/boats, field consultations conducted, and endorsement of IRRs by league of coastal municipalities	Same inter-agency working group that drafted NICMMS to review and draft IRR for several provisions in the Fisheries Code and conduct field consultation for the IRR	DA-BFAR/ DENR/LGU /PNP
<b>POLICY REFORMS</b>				
<b>Medium Term (Up to 2010)</b>				
<b>Provide the LGU the Technical Capacity to Manage their Coastal Resources</b>	Passage of the Coastal Zone Management Bill, tenure instruments supported by stronger policy, ban on cutting of mangrove plantations repealed and replaced by arrangements for sustainable management	Increase in number of ha. of mangrove plantations; increase in number of tenure instruments granted; CZM Bill filed in Congress	Draft the Coastal Zone Management Act; provide technical assistance in public hearings	DENR/DA/ PNP/Coast Guard
<b>GOVERNANCE REFORMS</b>				
<b>Short Term (Up to 2007)</b>				
	<b>Targets</b>	<b>Performance Indicators</b>	<b>Action Plans</b>	<b>Lead Agency</b>
<b>Provide the LGU the Technical Capacity to Manage their Coastal Resources</b>	Acceptable standards and accountability in CRM	Number of coastal areas co-managed and or managed under MOAs; length of time within tenure rights are granted; clear accountability benchmarks developed	Inter-agency working group identifies local area resource centers, e.g. universities to provide needed TA and draft the relevant TOR and MOA between LGU and local resource centers; development of incentive schemes for participating, as appropriate	BFAR- DA/DENR/ LGU/ Academe
<b>Expand coverage of CRMP to other Coastal Municipalities</b>	Coastal municipalities with and implementing coastal management plans	Percentage of the 840 coastal municipalities displaying good practice indicators, e.g. updated coastal data; active FARMCs; active <i>Bantay-dagat</i>	Inter-agency working group drafts an annual and multi-year plan to increase CRM municipalities	BFAR- DA/DENR/ LGU
<b>Make Inventory of Current Land Use in Open</b>	Reversion of the idle, abandoned, and non-productive fishponds to	Percentage of idle mangroves becoming productive; increase in	Review existing data on fishponds and update the inventory specifically	DENR/DA- BFAR/LGU

<b>Access Areas in Coastal, Idle, Abandoned or Protected Area Fishponds</b>	mangrove forestlands; salvage zones accessible to the public; managed coastal tourism industry	fish production; number of fishponds under rehabilitation; and no/ha. of salvage zones reverted to public access	identifying all idle, abandoned and non-productive fishponds; determine how to improve productivity of fishponds through partnership with DA-BFAR and respective LGUs; identify a strategy for dealing with illegal occupants of salvage zones	
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**PRIORITY AREA: COMMUNITY-BASED PROTECTED AREA MANAGEMENT**

<b>INSTITUTIONAL REFORMS Short Term (Up to 2007)</b>				
	<b>Targets</b>	<b>Performance Indicators</b>	<b>Action Plans</b>	<b>Lead Agency</b>
<b>PAMB able to operate in an Autonomous manner; Decentralize implementation process</b>	Increased LGU and community management of PAs	New IRR provides for decentralized and devolved administration of PA; increase in number of PAMBs; PAMB policies become municipal ordinances	Technical committee drafts changes to the NIPAS-IRR such that PAMB is decentralized to barangay level, membership is based on capability, and appointed by Regional DENR; administration of IPAF devolved; activate the executive committee of the PAMB; increase training for PAMB, e.g. conflict resolution skills and finance management	PAWB/DE NR/DOF
<b>Strengthen Partnership with other Government agencies</b>	Greater appreciation and participation by other government agencies of PAs	Rate and consistency at which PAMBs actively resolve stakeholder conflicts in PAs; no. of PAs receiving support from other government agencies	Develop capability building activities for PAMBs, e.g., conflict resolution mechanisms, team-building programs and partnership advocacy	PAWB/DENR
<b>Empower Communities</b>	Increased community ownership of PA	PA management and development plans developed with the participation of communities; communities represented in barangay PAMBs; decline in illegal activities in PAs	Technical committee drafts changes to the NIPAS-IRR indicating specific steps on social mobilization to increase community participation; ensure quick delineation of buffer zones where communities can engage in sustainable livelihood through inclusion in the updated PA IRRs	PAWB/DENR
<b>Professionalize PA Management</b>	PASU becomes a regular position; PASU positions are occupied by highly qualified professionals in PA management	PASU considered as regular position; number of PASUs with higher education degree in PA management	Develop TOR; obtain approval from DBM; train and accredit to international standards; explore use of scholarship program for training	PAWB, DENR

<b>INSTITUTIONAL REFORMS</b> <b>Medium Term (Up to 2010)</b>				
<b>Give the PAMB more Autonomy; Decentralize the Implementation Process</b>	PAMBs with independent fund sources from PA fees and revenues from sustainable use of resources in the PA	IPAF administration at regional Land Bank offices; PAMB with financial statements showing financial independence; incorporation of self-financed PAMBs	Review and revision of the IPAF guidelines by legal and the IPAF governing board; focus work on devolving management of the IPAF; lobby for PA laws to allow full retention of PA revenues; draft action plans to enhance revenues from PA and financial systems for PAMBs.	PAWB, DENR, LGUs, NGOs
<b>Empower Communities</b>	Increased community ownership of PA and improved quality of life of PA communities	Increased sustainable livelihood or enterprises in buffer zones of PA; decreased illegal activities in PAs	Technical committee drafts plan to provide livelihood and/or enterprise assistance to communities	PAWB, DENR, LGUs, NGOs
<b>Professionalize PA Management</b>	PASU as a regular position with levels of the position reaching as high as Director level, providing an incentive and better management of protected areas	PASU as regular position with highest level of position equivalent to Director approved by DBM	Advocacy on the PASU position, follow up with DBM, continue to train PASUs to upgrade their capabilities	PAWB, PAMB, DENR

<b>POLICY REFORMS</b> <b>Short Term (Up to 2007)</b>				
	<b>Targets</b>	<b>Performance Indicators</b>	<b>Action Plans</b>	<b>Lead Agency</b>
<b>Revisit the NIPAS Act</b>	A more responsive and effective IRR for the NIPAS Act	Amendments to the IRR of the NIPAS Act stressing more community processes and easily achievable technical requirements; PAMB composition, less partial to political demands; NIPAS and IPA Fund management devolved; PAMB resolutions as LGU ordinances review and adjust the type of banned acts in PAs	Form an inter-agency policy review group to review the bio-physical and social concern provisions of the law; make PAMB more autonomous; allow more LGU authority through a devolution of management of the IPAF; professionalize PA staff, develop guidelines on invasive species and GMOs	PAWB-DENR/LGU
<b>Resolve overlapping policies and management regimes in PAs</b>	Less stakeholder and agency conflicts in protected areas	DOJ issues opinion on conflicting provisions; MOA among various agencies involved in PA management prepared to minimize conflicting interests; greater harmonization of various management approaches and regimes within the DENR through DAOs	Review NIPAS, CARP, IPRA, LGC, etc., to resolve conflicting provisions; train field staff in conflict resolution; DENR to resolve cases of overlapping management regimes in PAs; stronger linkages with partner agencies to avoid conflicts through MOAs	PAWB-DENR/BMS-DENR/NCIP/DA-BFAR/DAR/LGU

<b>GOVERNANCE REFORMS</b>				
<b>Short Term (Up to 2007)</b>				
	<b>Targets</b>	<b>Performance Indicators</b>	<b>Action Plans</b>	<b>Lead Agency</b>
<b>Follow Priorities defined in the PBCPP</b>	All PAs are in agreement with the CPAs	Location of 132 PAs and the 108 PAs not yet under NIPAS reconciled with CPAs; remaining 112 PAs rated according to biological, historical, cultural and anthropological values as defined in the PBCPP	Technical committee reviews location of 132 PAs that overlap with CPAs followed by the 108 PAs not yet included in the NIPAS; rate the 112 PAs that do not overlap with the CPAs according to their biological, historical, cultural and anthropological values based on the definitions set by the PBCPP	PAWB/DE NR/ NAMRIA
<b>Establish performance standards</b>	Effective management of the PAs biological diversity	Base line for managing key species drafted	Draft clear performance and M & E system for PAMBs and PASUs; seek ownership by IPs on conservation plans	PAWB/ DENR

## References

Department of Environment and Natural Resources. Environment and Natural Resources Policy Issuances, 1987-June 2003.

Department of Environment and Natural Resources, 2003. Capacity Assessment for Protected Areas Management.

Department of Environment and Natural Resources, 1998. The Philippine Strategy for Improved Watershed Resources Management.

Department of Environment and Natural Resources, 2001. Philippine Forestry Statistics.

Department of Environment and Natural Resources, 2002. Philippine Forestry Statistics.

Department of Environment and Natural Resources, 2003. Philippine Forestry Statistics.

Department of Environment and Natural Resources, 2004. Mines and Geosciences Bureau Statistics

Field Consultations with Multi-sector Natural Resources Manager from Three Regions in the Country, 2003.

Gonzales, M. assisted by Hagart- Alexander, B., 1998. An Assessment of Coastal and Marine Resources Management Needs in the Philippines.

Manila Observatory Environmental Science for Social Change, 1999. Mining Revisited: Can An Understanding of Perspectives Help?

National Power Corporation, 2003. Statistics.

National Commission for Indigenous Peoples, 2004. Medium-Term Philippine Development Plan for Indigenous Peoples.

World Bank, 2003. Governance of Natural Resources in the Philippines: Lessons from the Past, Directions for the Future.