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***RE-THINKING
PHILIPPINE ENVIRONMENTAL INSTITUTIONS:
DO WE NEED TO REALLOCATE
MANDATES, POWERS, AND FUNCTIONS?***

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EXECUTIVE SUMMARY

The direction of environmental and natural resources (ENR) management in the Philippines is set by the Constitution, various laws and policy pronouncements towards the following objectives: environmental protection, promotion of economic development and poverty alleviation, and promotion of social justice and equity. The country has a robust ENR policy framework, backed up by a range of laws covering almost every ENR sector.

For a long time, Philippine law and policy (particularly in the forestry and fisheries sectors) have been focused on natural resource utilization, with little regard for conservation and management. Relatively recent laws and policy pronouncements, however, have shifted the focus to sustainable and community-based management. In more recent years, the government also passed three framework laws that seek to address the environmental challenges posed by population growth, urbanization and industrialization. These are the Clean Air Act (1999), the Ecological Solid Waste Management Act (2000), and the Clean Water Act (2004).

A big number of institutions take part in ENR management. At the national level, the lead agency is the Department of Environment and Natural Resources (DENR). Significant ENR management functions have been devolved to local government units (LGUs) by the Local Government Code (1991) and specific environmental laws. Special, multi-jurisdictional bodies have been created to manage areas possessing special biophysical characteristics that span across several political units. Newer laws also established multi-sectoral, coordinative bodies to manage different environmental sectors.

Across the different environmental sectors, however, implementation and enforcement of policies and laws have been hampered by lack of financial, human and technical capacity. To address these, reforms are necessary in both the demand and supply sides. The organizational structure of the DENR has also been criticized for being outdated, and poses a challenge to effective ENR management. The department's staffing patterns should be reformed as to reflect its new mandates. There is also need to reorganize the bureaucracy to institutionalize integrated, spatially-based management. Furthermore, to remove the seeming conflict of mandates within the DENR, utilization promotion functions should be removed from the department.

Experience has shown that local governments can be effective resource managers, provided enabling conditions are present. These conditions must be provided to them, and expanding their role in ENR management must be considered.

Despite the comprehensive regulatory framework, the threat of penal sanction appears to be a poor deterrent to acts harmful to the environment because the probability of apprehension and punishment remains low. Access to environmental justice needs to be improved, and the recent creation of Environmental Courts is a significant development. This must be complemented by capacity building, and by the intensifying the use of

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alternative modes of dispute resolution to resolve disputes, and market-based instruments to enforce compliance.

Multi-sectoral partnerships have been shown to be indispensable for effective ENR management. Avenues for public participation—both in the management of natural resources and in policy-making—exist. However, the role of citizens and citizens' organizations and the private sector must continue to be enhanced. Finally, continued advocacy is needed to demand from the government greater accountability in the implementation and enforcement of ENR policies and laws.

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I. INTRODUCTION

This paper looks at the policy and legal framework for environmental and natural resources (ENR) management in the Philippines, and the institutions that have been mandated to implement and enforce these policies and laws. It identifies key constraints to effective ENR management, and gives corresponding recommendations.

The paper is based on existing literature, policy issuances and laws, and reports of government agencies. Inputs from key informant interviews will be integrated in the final version of this work.

II. BACKGROUND ON THE PHILIPPINE ENVIRONMENT

The Philippines is an archipelagic country composed of more than 7,000 islands. It has a land area of approximately 300,000 square kilometers and a coastline of more than 17,000 kilometers. While the country is relatively small, it is packed with biological resources. The Philippines is recognized to be one of the world's 17 mega-diversity countries, which, among themselves, host more than two-thirds of the planet's biological resources. (Ong, 2004)

For its part, the Philippines is known to have more than 50,000 species of flora and fauna, more than 65% of which are to be found only in the country. It hosts one of the world's richest concentrations of marine life, with more than 500 of the 800 known coral reef species, more than 2,000 marine fish species, more than 40 mangrove species, and 16 seagrass species.

Sadly, the country's rich biological resources are under threat because the ecosystems that support them have been severely degraded. The country has lost much of its original forest cover. At the turn of the 20th century, 70% of the country's land area (21 million hectares) was covered by tropical forests. By 1999, this was down to 18% (5 million hectares). The marine environment has also suffered extreme degradation; only 4% of coral reefs remain in excellent condition.

These conditions were found to have been caused by:

- (a) Overexploitation of natural resources;
- (b) Conversion of natural ecosystems to other uses;
- (c) Development of urban and industrial infrastructure;
- (d) Pollution and sedimentation from urban and industrial centers and agricultural expansion. (World Bank, 2003a)

Furthermore, population growth, urbanization and industrialization, which have taken place in the last several decades, have led to deteriorating environmental quality, especially in urban areas. Air pollution has worsened as a result of greater industrial activity, heavy traffic and large number of vehicles plying the streets. Population growth

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and rising living standards have contributed to the accumulation of wastes. Industrial activity and agricultural activity have caused extensive pollution of water bodies.

The adverse impacts of environmental degradation and natural resource depletion on the economy and the health of the populace have been significant. For example, annual economic losses caused by water pollution are estimated at US\$1.3 billion, and the increased health costs of exposure to air pollution in four urban centers alone are estimated to be more than US\$400 million. (World Bank, 2004)

To combat these problems, the Philippine government has, through the years, developed a plethora of laws and institutions to govern the country's environment and natural resources.

III. DESCRIPTION OF POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK

A. Policy Framework

In contrast to the sorry state of the environment and natural resources, the country's ENR policy framework is formidable and robust. The direction of ENR management in the country has been set by the 1987 Constitution itself, which expressly recognized the right of the people "to a balanced and healthful ecology in accord with the rhythm and harmony of nature" (Article II, section 16). Reading this provision together with other provisions calling for equitable distribution of wealth and expanding productivity as a key to raising the quality of life for all,¹ it can be concluded that the goal of ENR management in the Philippines is three-fold: environmental protection, economic development and poverty alleviation, and promotion of social justice and equity.

As early as the 1970s, and even before the concept became internationally recognized, sustainable development² was already institutionalized in the Philippines as a policy, although not explicitly. This can be gathered from the Presidential Decree No. 1151 (1977), otherwise known as the Philippine Environmental Policy, which made it a policy of the State "to (a) create, develop, maintain, and improve conditions under which man and nature can thrive in productive and enjoyable harmony with each other, (b) to fulfill the social, economic and other requirements of present and future generations of Filipinos, and (c) to ensure the attainment of an environmental quality that is conducive to a life of dignity." The decree, furthermore, set goals which mirror some of the elements of sustainable development, including:

- (a) fulfilling the responsibilities of each generation as trustee and guardian of the environment for succeeding generations;
- (b) preserving important historic and cultural aspects of the Philippine heritage;
- (c) attaining a rational and orderly balance between population and resource use; and

¹ See 1987 Constitution at Article II, sections 9 and 10, Article XII, sections 1, 2, 3, 4, 5, Article XIII, sections 1, 4-8.

² Sustainable development has been defined as development which meets the present needs without limiting the options of the future generations to meet their needs.

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- (d) improving the utilization of renewable and non-renewable resources.

At the same time, it encouraged the widest exploitation of the environment, subject to the condition that it shall not degrade the same, or endanger human life, health, and safety, or create conditions adverse to agriculture, commerce, and industry.

Decades latter, the pronouncement under the Philippine Environmental Policy was followed by the 1989 Philippine National Strategy for Sustainable Development and the 1996 Action Plan for Sustainable Development (also known as Philippine Agenda 21). The 1989 Philippine National Strategy for Sustainable Development sought to achieve economic growth with adequate protection to the country's biological diversity, vital ecosystem functions, and overall environmental quality.

Philippine Agenda 21, meanwhile, set guidelines for sustainable national development. It placed integrity of nature at the center of development initiatives. In a sense, it improved on the Philippine Environmental Policy by moving the focus away from maximum productivity to "appropriate productivity" within the limits of the natural environment's carrying capacity. (Oposa, 2002) At present, it continues to serve as the guiding document for the country's strategy for sustainable development.

The sustainable development agenda was further strengthened by the formulation of the Mid-Term Philippine Development Plan (MTPDP) 2004-2010, and the country's adherence to the Millennium Development Goals (MDGs). The MTPDP identified five goals relating to the environment and natural resources sector, as follows:

- (a) sustainable and more productive utilization of natural resources to promote investments and entrepreneurship;
- (b) promotion of responsible mining that adheres to the principles of sustainable development: economic growth, environmental protection and social equity;
- (c) strengthening the protection given to vulnerable and ecologically fragile areas;
- (d) creating a healthier environment for the population; and
- (e) mitigating the occurrence of natural disasters to prevent the loss of lives and properties.

On the other hand, one of the goals enunciated under the MDGs (Goal No. 7) is to ensure environmental sustainability. The three specific targets under this goal are as follows:

- (a) Target 10: Implement national strategies for sustainable development by 2005, to reverse loss of environmental resources by 2015;
- (b) Target 11: Halve the proportion of people with no access to safe drinking water and basic sanitation or those who cannot afford it by 2015; and
- (c) Target 12: Achieve a significant improvement in the lives of at least 100 million slum dwellers by 2020.

B. Legal Framework

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The country's environmental policy is backed up by a comprehensive body of laws covering almost every ENR sector. Major legal instruments include:

- (a) the Revised Forestry Code (Presidential Decree No. 705);
- (b) the Marine Pollution Decree (Presidential Decree No. 979);
- (c) the Water Code (Presidential Decree No. 1067);
- (d) the Philippine Environmental Code (Presidential Decree No. 1152);
- (e) the Environmental Impact Statement (EIS) System (Presidential Decree No. 1586);
- (f) the Toxic Substances and Hazardous and Nuclear Wastes Control Act (Republic Act No. 6969);
- (g) the People's Small-Scale Mining Act (Republic Act No. 7076);
- (h) the National Integrated Protected Areas System (NIPAS) Act (Republic Act No. 7586);
- (i) the Philippine Mining Act (Republic Act No. 7942);
- (j) the Philippine Fisheries Code of (Republic Act No. 8550);
- (k) the Clean Air Act (Republic Act No. 8749);
- (l) the Ecological Solid Waste Management Act (Republic Act No. 9003); and
- (m) the Clean Water Act (Republic Act No. 9275).³

These laws—divided into laws on natural resources and laws on the environment, and discussed chronologically per category—are described briefly below. The discussion is limited to a description of the subject and mandates of these laws, and leaves out institutional arrangements prescribed therein. The latter will be taken up in a subsequent section.

1. Natural Resources Laws

The Revised Forestry Code (1975) governs the utilization and management of forest lands and forest products. The law emphasizes the need for the proper management and utilization of lands of the public domain in order to maximize their productivity. As such, it provides for the issuance of license agreements, licenses, leases or permits for the exploitation and occupation of forest lands, and the establishment of wood or forest products processing plant, and sets their parameters. Recognizing the multiple uses of forests, it contains provisions on reforestation, forest protection and regulatory fees. It also defines criminal offenses with respect to forest products and forest lands.

The Water Code (1976) integrates laws relating to the ownership, development, exploitation and conservation of water resources. It reiterates the principle, following the Regalian Doctrine, that all waters (whether found on public or private land) belong to the State. Thus, under the Code, no person or entity may appropriate water from natural sources (except when using hand carried receptacles, or if the same is for domestic purposes) without a water right granted by the government. The Code, moreover, requires that the development of water resources consider the security of the State, multiple use, beneficial effects, adverse effects and cost of development.

³ Noticeably absent is a comprehensive national land use law.

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The Small-Scale Mining Act (1991) carries out the State's policy of promoting small-scale mining activities in order to generate more employment opportunities and provide an equitable sharing of the nation's wealth. Small-scale mining, as defined in the law, refers to mining activities which rely heavily on manual labor using simple implements and methods and do not use explosives or heavy mining equipment. The law establishes a People's Small Scale Mining Program, which entails the identification, segregation, and reservation of certain mineral lands as people's small-scale mining areas; extension of technical and financial assistance, and other social services; extension of assistance in processing and marketing; and regulation of the small-scale mining industry with the view of encouraging growth and productivity.

The National Integrated Protected Areas System (NIPAS) Act (1992) seeks to protect and maintain the natural biological and physical diversity of the environment in areas with biologically unique features, and to secure the perpetual existence of all native plants and animals, through a comprehensive system of integrated protected areas within the classification of national park as provided for in the Constitution. Thus, it establishes the NIPAS and provides for its administration. The NIPAS encompasses outstandingly remarkable areas and biologically important public lands that are habitats of rare and endangered species of plants and animals, bio-geographic zones and related ecosystems.

The Mining Act (1995) mandates the rational exploration, development, utilization and conservation of mineral resources through the combined efforts of government and the private sector. It sets the modes through which the private sector can engage in mineral development, namely: mineral production sharing agreements, co-production agreements, joint venture agreements and financial or technical assistance agreements (FTAAs). The first three are reserved for citizens of the Philippines, or corporations, partnerships, associations or cooperatives, at least 60% of which are owned by citizens of the Philippines. The last is open to foreign-owned corporations. The law provides for auxiliary rights (*e.g.*, timber rights, water rights) and fiscal and non-fiscal incentives for mining contractors. It also contains provisions regarding the development of mining communities and environmental protection.

The Fisheries Code (1998) seeks to ensure the rational and sustainable development of fishery and aquatic resources in Philippine waters, and limits access thereto to Filipino citizens. It provides the structure for the grant of fishing privileges, and gives preferential treatment to municipal fisherfolk in the grant of privileges in municipal waters. It also defines criminal offenses with respect to fisheries and aquatic resources.

While not an ENR law, the Indigenous Peoples Rights Act or IPRA (1997) has significant impact on natural resources management. The IPRA provides for the formal recognition of indigenous peoples' (IPs) title to their ancestral domain or ancestral land through the issuance of a Certificate of Ancestral Domain Title (CADT) or Certificate of Ancestral Land Title (CALT), as the case may be. It gives IPs the right to develop their ancestral lands or domains and the natural resources therein.

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2. *Historical Perspective of Natural Resources Policy and Legal Framework*

The attention given to balancing utilization and conservation of natural resources as seen in policy pronouncements is a relatively recent development. For a long time, the government implemented a policy that placed emphasis on economic development, with little regard for conservation. Natural resource exploitation was heavily encouraged since the American and Philippine Commonwealth periods. In fact, from the 1940s to the 1970s, the Philippines was one of the world's leading exporter of logs. This bias towards extraction and utilization led to the degradation of Philippine forests and marine resources. Sad to say, the country as a whole gained little from this policy, as it benefited only a small, privileged segment of society.

The policy shift (from exploitation to management), particularly in the forestry and fisheries sectors, occurred in the 1990s. In 1995, President Fidel V. Ramos promulgated Executive Order No. 263, which pronounced Community Based Forest Management (CBFM) as a strategy for sustainable forest management. The CBFM strategy addressed the concern on sustainable forest management, and also allowed more equitable access to forest resources. Other instruments which served these ends include the NIPAS Act and the IPRA, which gave local communities and indigenous peoples communities, respectively, the opportunity to formally participate in forest management. (de Rueda, 2007) In the fisheries sector, the passage of the Fisheries Code gave impetus to fisheries resources conservation and community-based management. (Israel, 2003)

3. *Environmental Laws*

Environmental laws have a relatively shorter history than natural resources laws. Before the 1970s, little importance was placed on environmental concerns as they were not viewed as critical then. (Israel, 2003)

The Marine Pollution Decree (1976) prohibits the dumping of wastes and other matter which create hazards to human health, harm living resources and marine life, damage amenities or interfere with the legitimate uses of the sea.

The Philippine Environmental Code (1977), promulgated at the same time as the Philippine Environmental Policy, operationalized policy pronouncements made in the latter. It introduced a comprehensive program for environmental protection and management, and contained provisions on air quality management, water quality management, land use management, natural resources management and conservation, and solid waste management. However, most of its provisions have been superseded by newer laws.

Presidential Decree No. 1586 (1981) established the Environmental Impact Statement (EIS) System. Under this law, no person, partnership or corporation may undertake or operate an environmentally-critical project, or any project in an environmentally-critical area, without undergoing environmental impact assessment and securing an Environmental Compliance Certificate (ECC). Proclamation No. 2146 identified what are

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environmentally-critical projects, and which are environmentally-critical areas. The Philippine EIS System is said to be one of the most comprehensive environmental assessment systems in the world. A World Bank study noted that it has all the basic elements of good environmental assessment practice, such as screening, scoping, independent review, public participation, disclosure, and monitoring. (World Bank, 2007a)

The Toxic Substances and Hazardous and Nuclear Wastes Control Act (1991) regulates the importation, manufacture, processing, handling, storage, transportation, sale, distribution, use, and disposal of all chemical substances and mixtures in the Philippines, including the entry, keeping or storage and disposal of hazardous and nuclear wastes into the country.

Moreover, there are a number of other laws that dealt with the problems of water quality and solid waste management on a piece-meal basis (*e.g.*, Presidential Decree No. 825, otherwise known as the Garbage Control Law; Presidential Decree No. 856, otherwise known as the Sanitation Code).

4. *Challenges of Modernization and Government Response*

As mentioned earlier, population growth, urbanization and industrialization have put pressure on the country's natural resources and given rise to the problem of pollution (air, water and land) and its attendant woes (*e.g.*, environmental health concerns). To combat these problems, the government came up a succession of laws that have been hailed as landmark legislation. These are the Clean Air Act (1999), the Ecological Solid Waste Management Act (2000), and the Clean Water Act (2004). These laws have been lauded for laying down a comprehensive framework for air quality, solid waste and water quality management, respectively, in the place of piece-meal legislation that previously governed these matters.

These laws are characterized by the emphasis they place on:

- (a) multi-sectoral cooperation (*e.g.*, institutionalization of national and local multi-sectoral governing boards);
- (b) information-based policy-making (*e.g.*, preparation national and local management frameworks and plans based on status reports);
- (c) the use of market-based instruments (*e.g.*, emission or waste water charge system, environmental guarantee funds) and the role of business and industry;
- (d) the role of local government units (LGUs); and
- (e) public participation (*e.g.*, provisions on public hearings in the preparation of plans, citizen suits and SLAPP suits).

The Clean Air Act calls for the designation of airsheds on the basis of areas with similar climate, meteorology and topology, or areas which share common interest or face similar development programs, prospects or problems. Airsheds shall serve as the basic unit for air quality management. It requires the preparation of an Air Quality Improvement

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Framework and an Air Quality Control Action Plan; sets national ambient air quality and emission standards; puts in place a permitting and clearance system for pollution sources; bans incineration and smoking inside enclosed public places; calls for the preparation of specifications for fuels and fuel-related products to improve fuel composition and reduce emissions; and bans ozone depleting substances.

The Ecological Solid Waste Management Act mandates the preparation of a National Solid Waste Management Framework and of Solid Waste Management Plans at the local level. It provides for the mandatory segregation of solid wastes and the development of a recycling program. It also prohibits the use of open dumps.

The Clean Water Act requires the designation of certain areas as water quality management areas, the classification of Philippine waters, and the implementation of a wastewater charge system.

C. Institutional Framework

1. Department of Environment and Natural Resources

The country's lead environmental agency is the Department of Environment and Natural Resources (DENR). It was created in 1987 by Executive Order No. 192, which consolidated several government agencies performing ENR functions. (These include the Bureau of Forest Development, Wood Industry Development Authority, Bureau of Lands, Bureau of Mines and Geosciences, Mineral Reservations Development Board, Gold Mining Industry Development Board, National Environmental Protection Council, National Pollution Control Commission, Environmental Center of the Philippines, Forest Research Institute, and National Mangrove Committee, among others).

The DENR is primarily responsible for the conservation, management, development and proper use of the country's environment and natural resources, specifically forest and grazing lands, mineral resources, and lands of the public domain, as well as the licensing and regulation of all natural resources. Its powers and functions are prescribed by Executive Order No. 192. Under the law, the DENR is to be guided by the following objectives in performing of its functions:

- (a) assuring the availability and sustainability of the country's natural resources through judicious use and systematic restoration or replacement;
- (b) increasing the productivity of natural resources in order to meet the demands for forest, mineral, and land resources of a growing population;
- (c) enhancing the contribution of natural resources to national economic and social development;
- (d) promoting equitable access to natural resources by the different sectors of the population; and
- (e) conserving specific terrestrial and marine areas representative of the Philippine natural and cultural heritage for present and future generations.

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The DENR's functions basically revolve around the following: (a) development, implementation, monitoring, and evaluation of ENR policies and plans; (b) development, protection, conservation, and enhancement of ecosystems and natural resources, and rehabilitation of degraded ones; and (c) development, implementation, monitoring and enforcement of ENR standards and regulations. (World Bank, 2007a)

In addition to the powers and functions listed in Executive Order No. 192, others are found in specific environmental laws. The more significant ones are summarized below.

Law	Powers and Functions
Revised Forestry Code	<ul style="list-style-type: none"> • Protect, develop, manage and reforest forest lands; • Regulate and supervise licensees, lessees and permittees; • Implement multiple use and sustained yield management in forest lands; • Protect, develop and preserve national parks, marine parks, game refuges and wildlife; • Implement measures to prevent <i>kaingin</i>; • Enforce forestry, reforestation, parks, game and wildlife laws, rules and regulations.
Marine Pollution Decree	<ul style="list-style-type: none"> • Promulgate national rules and policies governing marine pollution.
Toxic Substances and Hazardous and Nuclear Wastes Control Act	<ul style="list-style-type: none"> • Keep an updated inventory of chemicals that are presently being manufactured or used; • Require chemical substances and mixtures that present unreasonable risk or injury to health or to the environment to be tested; • Conduct inspection of any establishment in which chemicals are manufactured, processed, stored or held; • Confiscate or impound chemicals; • Monitor and prevent entry of hazardous and nuclear wastes.
Small-Scale Mining Act	<ul style="list-style-type: none"> • Implement the People's Small-Scale Mining Program; • Exercise direct supervision and control over Provincial and City Mining Regulatory Boards.
NIPAS Act	<ul style="list-style-type: none"> • Control and administer the NIPAS; • Recommend to the President the establishment or disestablishment of a protected area; • Cause the preparation of, and exercise the power to review all plans and proposals for the management of protected areas; • Fix and prescribe reasonable NIPAS fees; • Control the construction and operation of buildings and structures within the protected areas; • Control occupancy of suitable portions of a protected area.
Mining Act	<ul style="list-style-type: none"> • Conserve, manage and develop the State's mineral resources;

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	<ul style="list-style-type: none"> • Enter into mineral agreements on behalf of the government.
Clean Air Act	<ul style="list-style-type: none"> • Prepare an annual National Air Quality Status Report; • Formulate and implement the Integrated Air Quality Improvement Framework; • Formulate and implement an Air Quality Control Action Plan; • Designate and revise the designation of airsheds; • Inspect and supervise the implementation of the procedure for enforcement of the Air Quality Control Action Plan prepared by local governments; • Review, revise and publish annually a list of hazardous air pollutants with corresponding ambient guideline values or standards; • Design, impose and collect regular emission fees from industrial dischargers; • Administer the Air Quality Management Fund; • In coordination with the Department of Science and Technology (DOST), establish a National Research and Development Program for the prevention and control of air pollution; • Issue permits as it may deem necessary for the prevention and abatement of air pollution; • Review, revise and publish emission standards for stationary sources; • In collaboration with the Department of Transportation and Communication (DOTC), the Department of Trade and Industry (DTI) and local government units, develop an action plan for the control and management of air pollution from motor vehicles; • Together with the Department of Education (DepEd), Department of Interior and Local Government (DILG), and Philippine Information Agency (PIA), promote a continuing air quality information and education campaign.
Ecological Solid Waste Management Act	<ul style="list-style-type: none"> • Prepare an Annual National Solid Waste Status Report; • Prepare and distribute information, education and communication materials on solid waste management; • Establish methods and other parameters for the measurement of waste reduction, collection and disposal; • Provide technical and other capability building assistance and support to local government units; • Recommend policies to eliminate barriers to waste reduction programs
Clean Water Act	<ul style="list-style-type: none"> • In coordination with the National Water Resources Board (NWRB), designate certain areas as water quality management areas as water quality management areas;

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	<ul style="list-style-type: none">• In coordination with the NWRB, Department of Health (DOH), Department of Agriculture (DA) and other concerned government agencies and private sector, take such measures as may be necessary to upgrade the quality of water in non-attainment areas;• Implement a wastewater charge system;• Issue discharge permits;• Prepare a National Water Quality Status Report;• Prepare an Integrated Water Quality Management Framework;• Prepare a 10-year Water Quality Management Area Action Plan;• Enforce, review and revise water quality guidelines;• Review and set effluent standards every five years from the effectivity of the Act;• Establish internationally-accepted procedures for sampling and analysis of pollutants;• Categorize point and non-point sources of water pollution;• Classify groundwater sources;• Classify or reclassify all water bodies according to their beneficial usage;• Exercise jurisdiction over all aspects of water pollution;• Exercise supervision and control over all aspects of water quality management;• Disseminate information and conduct educational awareness and value formation programs and campaigns;• Encourage private sector, especially manufacturing and processing plants, to use water quality management systems equipment;• Issue permits, clearances and similar instruments pursuant to the Act;• In coordination with the DOST, establish a national research and development program for the prevention and control of water pollution.
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Organizational Structure

The DENR is headed by a Secretary, who is appointed by the President and in whom the authority and responsibility for the exercise of the department's mandate is vested. The department consists of the Department Proper, the staff offices, the staff bureaus, and the regional/provincial/community natural resources office.

The Department Proper consists of the following:

- (a) Office of the Secretary;

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- (b) Offices of Undersecretaries;
- (c) Offices of Assistant Secretaries;
- (d) Public Affairs Office;
- (e) Special Concerns Office; and
- (f) Pollution Adjudication Board (PAB).

The staff bureaus consist of the Forest Management Bureau (FMB), Lands Management Bureau (LMB), Protected Areas and Wildlife Bureau (PAWB), and Ecosystems Research and Development Bureau (ERDB). Two former staff bureaus, the Mines and Geosciences Bureau (MGB) and the Environmental Management Bureau (EMB) have been converted into line bureaus by the Mining Act, and the Clean Air Act, respectively.⁴

The functions of these bureaus and the PAB under Executive Order No. 192 and other laws are summarized below.

Office	Law	Powers and Functions
FMB	EO 192	<ul style="list-style-type: none"> • Advise the Secretary on matters pertaining to forest development and conservation; • Recommend policies and programs for the effective protection, development, occupancy, management and conservation of forest lands and watersheds; • Advise regional offices in the implementation of policies and programs; • Assist in monitoring and evaluation of forestry and watershed development projects.
LMB	EO 192	<ul style="list-style-type: none"> • Advise the Secretary on matters pertaining to rational land classification management; • Recommend policies and programs for the effective administration, survey, management and disposition of alienable and disposable lands; • Advise regional offices in the implementation of policies and programs; • Assist in monitoring and evaluation of land surveys, management and disposition of lands.
PAWB	EO 192	<ul style="list-style-type: none"> • Formulate and recommend policies, guidelines, rules and regulations for the establishment of IPAS and the preservation of biodiversity; • Prepare listing of endangered flora and fauna and recommend a program of conservation and propagation; • Assist the Secretary in monitoring the management of the IPAS and provide technical assistance to regional offices in the implementation of programs for these areas.

⁴ A staff bureau primarily provides technical support, assistance and advice to the Secretary. It generally has no direct line of command over regional and field offices. A line bureau operates as a sub-organization in the department with direct line of command, usually with their own representative offices, down to the regional and field offices of the department. (World Bank, 2007)

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ERDB	EO 192	<ul style="list-style-type: none"> • Formulate and implement an integrated research program relating to Philippine ecosystems and natural resources.
MGB	EO 192	<ul style="list-style-type: none"> • Recommend policies, regulations and programs pertaining to mineral resources development and geology; • Advise the Secretary on the granting of mining rights and contracts; • Advise regional offices in the implementation of policies and programs; • Assist in monitoring and evaluation of the Bureau's programs and projects; • Develop and promulgate standards and operating procedures on mineral resources development and geology.
	Mining Act	<ul style="list-style-type: none"> • Exercise direct charge over the administration and disposition of mineral lands and mineral resources; • Recommend to the Secretary the granting of mineral agreements to duly qualified persons, and monitor compliance by the contractor with the terms and conditions of the agreement.
EMB	EO 192	<ul style="list-style-type: none"> • Recommend possible legislations, policies and programs for environmental management and pollution control; • Advise regional offices in the efficient and effective implementation of policies, programs and projects; • Formulate environmental quality standards; • Recommend rules and regulations for environmental impact assessments and provide technical assistance for their implementation; • Formulate rules and regulations for the proper disposition of solid wastes, toxic and hazardous substances; • Advise the Secretary on legal aspects of environmental management and pollution control and assist in the conduct of public hearings in pollution cases; • Provide secretariat assistance to the PAB; • Provide assistance to regional offices.
	PD 1586	<ul style="list-style-type: none"> • Review and evaluate Environmental Impact Statements
PAB	EO 192	<ul style="list-style-type: none"> • Adjudicate pollution cases

For field operations, the DENR maintains regional offices (16),⁵ provincial offices (73) and community offices (171). (World Bank, 2007a) The DENR's Regional Environment and Natural Resources Office (RENRO) is headed by a Regional Executive Director (RED), who is assisted by four Regional Technical Directors (RTDs), one each for

⁵ It should be noted that the Autonomous Region for Muslim Mindanao (ARMM) has its own autonomous DENR .

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forestry, land management, protected areas and wildlife, and ecosystems research. The DENR exercises its line functions through these field offices.

Attached Agencies

The National Mapping and Resource Information Authority (NAMRIA) and the Natural Resources Development Corporation (NRDC) are attached to the DENR. The NAMRIA acts as the government's central mapping agency, serving the need of the DENR and other government offices with respect to information and researches. It is the central depository and distribution facility for natural resources data in the form of maps, statistics, text, and charts.

The NRDC, on the other hand, is responsible for promoting natural resource development and conservation through (a) direct involvement in pioneering production, use and marketing ventures, and (b) financing natural resource development projects undertaken by the private sector.

2. Other National Government Agencies

Apart from the DENR, there are other national government agencies involved in ENR management. The major ones include the Department of Agriculture (DA) and its Bureau of Fisheries and Aquatic Resources (BFAR), Department of Energy (DOE), Department of Health (DOH), National Commission on Indigenous Peoples (NCIP)⁶, National Water Resources Board (NWRB), National Power Corporation (NAPOCOR), and Philippine National Oil Corporation (PNOC) (the last two, in connection with watershed areas and reservations supporting hydroelectric power generation and geothermal fields, respectively). Moreover, even agencies not traditionally associated with ENR functions, such as the Department of Trade and Industry (DTI), Department of Transportation and Communication (DOTC) and Department of Public Works and Highways (DPWH), have been given ENR management roles under the Clean Air Act and Clean Water Act.

The mandates of these agencies are summarized below.

Law	Office/Agency	Powers and Functions
Marine Pollution Decree	Philippine Coast Guard	<ul style="list-style-type: none">• Enforcing laws, rules and regulations governing marine pollution.
Indigenous Peoples Rights Act	NCIP	<ul style="list-style-type: none">• Formulate and implement policies, plans and programs to promote and protect the rights and well-being of IPs, and the recognition of their ancestral domain and the rights thereto;• Issue CADTs and CALTs;• Issue the appropriate certification as a pre-

⁶ It has been reported that the NCIP, formerly an attached agency of the Department of Agrarian Reform (DAR) has been transferred to the DENR. The implications for this transfer will be discussed in the next version of this paper.

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		condition to the grant of permit, license, lease or grant, or any similar authority for the disposition, utilization, management and appropriation of any part or portion of the ancestral domain.
Fisheries Code	DA	<ul style="list-style-type: none">• Set policies and formulate standards for the effective, efficient and economical operations of the fishing industry;• Exercise supervision over all functions and activities of all offices and instrumentalities related to fisheries.
	BFAR	<ul style="list-style-type: none">• Prepare and implement a Comprehensive National Fisheries Industry Development Plan;• Issue licenses for the operation of commercial fishing vessels;• Formulate and implement a Comprehensive Fishery Research and Development Program;• Establish and maintain a Comprehensive Fishery Information System;• Enforce all laws, and formulate and enforce all rules and regulations governing the conservation and management of fishery resources, except in municipal waters;• Assist local government units in developing their technical capability in the development, management, regulation, conservation, and protection of fishery resources.
Clean Air Act	DOTC	<ul style="list-style-type: none">• Design, impose on and collect regular emission fees from motor vehicle dischargers;• Implement, review, revise and publish emission standards for motor vehicles;• Together with the DTI and DENR, establish procedures for the inspection of motor vehicles and the testing of their emissions.
	DTI	<ul style="list-style-type: none">• Together with the DOTC and DENR, formulate a national motor vehicle inspection maintenance program;• Develop and implement standards and procedures for the certification of training institutions, instructors and facilities and the licensing of qualified private service centers;

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		<ul style="list-style-type: none"> Promulgate regulations prescribing the useful life of vehicles and engines.
	DOE	<ul style="list-style-type: none"> Lead the preparation of specifications for all types of fuel and fuel standards to improve fuel composition; Specify allowable content of additives in all types of fuels and fuel related products; Regulate the use of any fuel or fuel additive.
	Philippine Atmospheric, Geophysical and Astronomical Services (PAGASA)	<ul style="list-style-type: none"> Regularly monitor meteorological factors affecting environmental conditions including ozone depletion and greenhouse gases.
Clean Water Act	DPWH and its attached agencies (including urban water utilities)	<ul style="list-style-type: none"> In coordination with the DENR, local governments and other concerned agencies, prepare a national program on sewerage and septage; Provide sewerage and sanitation facilities.
	Philippine Coast Guard	<ul style="list-style-type: none"> Enforce water quality standards in marine waters.
	DA	<ul style="list-style-type: none"> In coordination with the DENR, formulate guidelines for the re-use of wastewater for irrigation and agriculture, and for the prevention, control and abatement of pollution from agricultural and aquaculture activities
	DOH	<ul style="list-style-type: none"> Promulgate, revise and enforce drinking quality standards.
	DOST	<ul style="list-style-type: none"> In coordination with the DENR and other concerned agencies, prepare a program for evaluation, verification, development and public dissemination of pollution prevention and cleaner production technologies.
Executive Order No. 15, series of 1992; Executive Order No. 370, series of 1996	Philippine Council for Sustainable Development (Philippine CSD)	<ul style="list-style-type: none"> Establish guidelines and mechanisms that will expand, concretize and operationalize the sustainable development principles, and incorporate them in the preparation of the Medium Term Development Plan both at the national and local levels Provide directions in the form of policy reforms, programs and new legislation that respond to the continuing and emerging issues and charting future actions in relation to environment and development

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Executive Order No. 230, series of 1987	National Economic Development Authority (NEDA)	<ul style="list-style-type: none">• Formulate continuing, coordinated and fully integrated social and economic policies, plans and programs
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3. Local Governments

Pursuant to the policy of decentralization, the Local Government Code of 1991 (Republic Act No. 7160) devolved numerous functions—including ENR management functions—to local government units (LGUs). Under the Code, the following ENR-related basic services were devolved:

To *barangays* (village local government):

Services and facilities related to general hygiene and sanitation, beautification, and solid waste collection;

To municipalities:

- (a) Water and soil resource utilization and conservation projects;
- (b) Enforcement of fishery laws in municipal waters including conservation of mangroves;
- (c) Pursuant to national policies and subject to the supervision, control and review by the DENR, (i) implementation of community-based forestry projects, (ii) establishment of tree parks, and (iii) similar forest development projects;
- (d) Solid waste disposal system or environmental management system and services or facilities related to general hygiene and sanitation;

To provinces:

Pursuant to national policies and subject to supervision, control and review of the DENR, enforcement of forestry laws limited to community-based forestry projects, pollution control law, small-scale mining law, and other laws on the protection of the environment; and mini-hydroelectric projects for local purposes;

To cities:

Same as municipalities and provinces.

Substantial environmental law-making powers were also delegated to local legislative bodies.⁷ Furthermore, the Code requires all national agencies and offices to conduct periodic consultations with appropriate local government units, non-governmental and people's organizations, and other concerned sectors of the community before any project or program is implemented in their respective jurisdictions. No project or program shall

⁷ See sections 447, 458 and 468 of the Local Government Code.

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be implemented by government authorities unless the consultations are complied with, and prior approval of the local legislative council concerned is obtained.

Under the Code, local governments may appoint an Environment and Natural Resources Officer.

The powers and mandates granted under the Code were further affirmed and reinforced by various ENR laws. These include:

- (a) the Small-Scale Mining Act;
- (b) the NIPAS Act;
- (c) the Mining Act;
- (d) the Fisheries Code;
- (e) the Clean Air Act;
- (f) the Ecological Solid Waste Management Act; and
- (g) the Clean Water Act.

The Small-Scale Mining Act placed small-scale mining within the jurisdiction of the Provincial or City Mining Regulatory Board (P/CMRB). The P/CMRB is responsible for (a) declaring and segregating existing gold-rush areas for small-scale mining; (b) reserving future gold and other mining areas for small-scale mining; (c) awarding contracts to small-scale miners; (d) formulating and implementing rules and regulations related to small-scale mining; and (e) settling disputes, conflicts or litigations over conflicting claims within a people's small-scale mining area. However, under the law, the P/CMRB is under the direct supervision and control of the Secretary of the DENR, and its acts are subject to review by the latter.

The NIPAS Act gave seats to representatives of LGUs in the Protected Area Management Board (PAMB), which is responsible for deciding allocations for budget, approving proposals for funding, and deciding matters relating to planning, peripheral protection and general administration of the protected area.

The Mining Act placed small-scale quarrying within the permitting authority of the Provincial Governor.

The Fisheries Code gave municipalities and cities jurisdiction over municipal waters (*i.e.*, marine waters within 15 kilometers from the coastline and inland bodies of water). As such, the municipal or city government is responsible for the management, conservation, development, protection, utilization and disposition of all fish, fishery and aquatic resources within their respective municipal waters. They may enact ordinances for this purpose in accordance with the National Fisheries Policy. They shall enforce all fishery laws, rules and regulation, and fishery ordinances.

Under the Clean Air Act, LGUs share the responsibility in the management and maintenance of air quality within their territorial jurisdiction. They shall implement air

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quality standards set by the Airshed Governing Board in areas within their jurisdiction. They are responsible for enforcing the ban against smoking inside enclosed public places.

The Ecological Solid Waste Management Act made LGUs primarily responsible for the implementation and enforcement of the Act in their respective jurisdictions. Provinces, cities and municipalities are required to prepare a solid waste management plan consistent with the National Solid Waste Management Framework. Segregation and collection of solid waste, specifically for biodegradable, compostable and reusable wastes, is the responsibility of the *barangay*. For purposes of waste sorting, segregation, composting and recycling, a Materials Recovery Facility (MRF) is required to be established in every *barangay* or cluster of *barangays*. Collection of non-recyclable materials and special wastes, on the other hand, is the responsibility of the municipality or city. Provinces, cities, municipalities and barangays are mandated to consolidate and coordinate their efforts, services, and resources for the purpose of jointly addressing common solid waste management problems and/or establishing common waste disposal facilities.

Under the Clean Water Act, LGUs share the responsibility in the management and improvement of water quality within their territorial jurisdiction. Accordingly, LGUs have been given the following powers and functions: (a) monitoring of water quality; (b) emergency response; (c) compliance with the framework of the Water Quality Management Action Plan; (d) participation in all efforts concerning water quality protection and rehabilitation; and (e) coordination with other government agencies and civil society and the concerned sectors in the implementation of measures to prevent and control water pollution.

4. *Special, Multi-jurisdictional Bodies*

Special, multi-jurisdictional bodies have been created to manage areas possessing special biophysical characteristics spanning across several political units. These are the Laguna Lake Development Authority (LLDA), for the Laguna Lake Region, and the Palawan Council for Sustainable Development (Palawan CSD), for the province of Palawan.

The government created the LLDA in recognition of the increasing pressure brought by urban growth and development on the land and waters of the Laguna Lake Region. The LLDA has the following powers and functions, among others:

- (a) pass upon and approve all plans, programs, and projects approved by local government offices or agencies within the region, public corporations and private persons or enterprises, where such plans, programs or projects are related to those of the Authority;
- (b) exclusive jurisdiction to issue permits for the use of lake waters for any project or activity in or affecting the lake, and to impose necessary safeguards for lake quality control and management;
- (c) require cities and municipalities embraced within the region to pass appropriate zoning ordinances and other regulatory measures;

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- (d) collect fees for the use of the lake waters and its tributaries for all beneficial purposes;
- (e) issue standards, rules and regulations to govern the approval of plans and specifications for sewerage works and industrial waste disposal system; and
- (f) issue, renew or deny permits for the discharge of sewage, industrial waste, or for the installation or operation of sewerage works and industrial disposal system.

The Palawan CSD was created by the Strategic Environmental Plan for Palawan Act (Republic Act No. 7611) to implement the Strategic Environmental Plan for Palawan or SEP. The SEP is a comprehensive framework for the sustainable development of the province. It serves as a guide to government agencies in the formulation and implementation of plans, programs and projects affecting the environment and natural resources of Palawan. It established a graded system of protection and development control over the whole of Palawan, known as the Environmentally Critical Areas Network (ECAN), which is its main strategy. The ECAN classifies terrestrial and coastal/marine areas of Palawan into different zones, and prescribes corresponding restrictions in their use.

5. *Multi-sectoral, Coordinative Bodies*

Recognizing the need for multi-sectoral cooperation and coordination in ENR management, newer laws created multi-sectoral bodies to govern various ENR sectors. These bodies are described below.

The NIPAS Act mandates the establishment of a PAMB for every protected area. As stated earlier, PAMBs are responsible for the general administration of protected areas. A PAMB is composed of:

- (a) the DENR Regional Executive Director who exercises jurisdiction over the region where the protected area is located;
- (b) one representative of the autonomous regional government, if applicable;
- (c) the Provincial Development Officer;
- (d) one representative from the municipal government;
- (e) one representative from each *barangay* within the protected area;
- (f) one representative from each tribal community, if applicable;
- (g) at least three representatives from non-government organizations (NGOs) and local community organizations; and
- (h) if necessary, one representative from other departments or national government agencies involved in protected area management.

The Fisheries Code mandates the establishment of Fisheries and Aquatic Resources Management Councils (FARMCs) at the national level, and in all cities and municipalities abutting municipal waters.

The National Fisheries and Aquatic Resources Councils (NFARMC) is mandated to assist in the formulation of national policies for the protection, sustainable development

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and management of fishery resources for the approval of the Secretary of the DA. It is composed of:

- (a) the Undersecretary of Agriculture;
- (b) the Undersecretary of Interior and Local Government;
- (c) five representatives from fisherfolk and fishworkers;
- (d) five representatives from commercial fishing and aquaculture operators and the processing sectors;
- (e) two representatives from the academe; and
- (f) one representative from NGOs involved in fisheries.

The Municipal or City Fisheries and Aquatic Resources Management Councils (M/CFARMCs), on the other hand, exercise the following functions:

- (a) assist in the preparation of the Municipal Fishery Development Plan;
- (b) recommend the enactment of municipal fishery ordinances; and
- (c) assist in the enforcement of fishery laws, rules and regulations in municipal waters;
- (d) advise the local legislative councils on fishery matters.

The M/CFARMC is composed of the following:

- (a) Municipal/City Planning Development Officer;
- (b) Chairperson, Agriculture/Fishery Committee of the local legislative council;
- (c) representative from accredited NGO;
- (d) representative from Municipal/City Development Council;
- (e) representative from the private sector;
- (f) representative from the DA; and
- (g) at least 11 fisherfolk representatives.

For bodies of water bounded by two or more municipalities or cities, an Integrated FARMC is required.

The Clean Air Act requires the creation of boards to manage airsheds. An Airshed Governing Board shall perform the following functions:

- (a) formulate policies;
- (b) prepare common action plans;
- (c) coordinate the functions of its members; and
- (d) submit and publish of an annual Air Quality Status Report.

An Airshed Governing Board shall be composed of the following:

- (a) the Secretary of the DENR as chairman;
- (b) city and municipal mayors from areas belonging to the airshed;
- (c) representative from each concerned government agency;

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- (d) representatives from people's organizations;
- (e) representatives from NGOs; and
- (f) representatives from the private sector.

The Ecological Solid Waste Management Act created coordinative mechanisms at the national and local levels. At the national level, it created the National Solid Waste Management Commission (NSWMC). The NSWMC is mandated to undertake the following, among others:

- (a) prepare the National Solid Waste Management Framework;
- (b) approve local solid waste management plans;
- (c) review and monitor the operation of local solid waste management boards in the provincial and city/municipal levels; and
- (d) to the maximum extent feasible, assist provincial, city and municipal solid waste management boards in the preparation, modification and implementation of waste management plans.

The NSWMC is under the Office of the President, and is composed of 14 members from the government sector and three from the private sector. The government sector is represented by the heads of the following agencies: the DENR, DILG, DOST, DPWH, DOH, DTI, DA, Metro Manila Development Authority (MMDA), League of Provincial Governors, League of City Mayors, League of Municipal Mayors, Association of *Barangay* Councils; Technical Education and Skills Development Authority (TESDA), and PIA. The private sector is represented by one representative each from NGOs whose principal purpose is to promote recycling and the protection of air and water quality, the recycling industry and the manufacturing or packaging industry.

At the local level, the law mandated the creation of the Provincial, City and Municipal Solid Waste Management Boards. The Provincial Solid Waste Management Board is tasked to, among others:

- (a) develop a Provincial Solid Waste Management Plan from the plans submitted by cities and municipalities, and oversee its implementation;
- (b) provide logistical and operational support to component cities and municipalities; and
- (c) coordinate the efforts of the component cities and municipalities.

It shall be composed of the following:

- (a) all mayors of component cities and municipalities;
- (b) one representative from the provincial legislative board;
- (c) the provincial health or general services officer;
- (d) the provincial engineer;
- (e) congressional representatives from each congressional district within the province;
- (d) three representatives from the private sector; and
- (f) representative from other concerned government agencies.

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The City or Municipal Solid Waste Management Board, on the other hand, has the following functions, among others:

- (a) develop and monitor the implementation of the City or Municipal Solid Waste Management Plan; and
- (b) adopt measures to promote and ensure the viability and effective implementation of solid waste management programs in component barangays.

It shall be composed of the following:

- (a) one representative from the city or municipal legislative council;
- (b) president of the Association of Barangay Councils;
- (c) Chairperson of the Sangguniang Kabataan Federation;
- (d) three representatives from the private sector; and
- (e) representative from other concerned government agencies.

The Clean Water Act calls for governing boards for water quality management areas. The governing board shall formulate strategies for the effective implementation of the Act. It shall be composed of mayors and governors of member LGUs, and representatives of relevant national government agencies, duly registered non-government organization, water utility sector, and business sector.

6. *Legislature*

The legislature (consisting of two chambers, the Senate and the House of Representatives) participates in ENR management in two significant ways: through the enactment of ENR legislation, and the enactment of appropriation laws.

Specific functions were also imposed under certain ENR laws. A legislative enactment is necessary to establish a protected area under the NIPAS Act. Congressional oversight committees were created under the Clean Air Act, the Ecological Solid Waste Management Act, and the Clean Water Act.

7. *Judiciary and Quasi-Judicial Agencies*

First- and second-level courts (Municipal Trial Courts and Regional Trial Courts) have jurisdiction over criminal cases for offenses defined under ENR laws. At present, there are hundreds of offenses defined and penalized under various ENR laws. Meanwhile, questions of rights or privileges are usually decided by administrative bodies. In pollution and mining cases, for example, the DENR's Pollution Adjudication Board (PAB) and Mines Adjudication Board (MAB) have exclusive original jurisdiction, and courts only have appellate jurisdiction.

Civil actions involving ENR matters may either be in the form of ordinary civil actions or special civil actions. Ordinary civil actions usually involve cases for damages resulting

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from pollution filed by private citizens or NGOs against private companies. They come within the jurisdiction of the first- or second-level courts, depending on the amount of damages involved. Special civil actions, on the other hand, usually seek to review (*Certiorari*), stop (Prohibition) and/or compel (*Mandamus*) executive agency action. Examples would be cases to compel observance of public participation and other due process procedures, or to stop or revoke the issuance of license, permits and clearances. These cases come within the jurisdiction of the Court of Appeals (if the respondent is the DENR, or any other body exercising quasi-judicial functions), or the Regional Trial Courts (if the respondent is an LGU).

Philippine courts observe the “hierarchy of courts.” Hence, direct resort to the highest court of the land, the Supreme Court, may not be had. However, in the past, the Supreme Court has brushed aside this rule in cases which involved issues of transcendental importance (including some environmental cases), and allowed direct resort to it.

In 1993, the Supreme Court designated special courts to handle violations of the Revised Forestry Code. This was in response to the number of violations of forestry laws. (Melencio Herrera, 2007)

Very recently, on January 28, 2008, the Supreme Court, designated 84 branches of first-level courts and 31 branches of second-level courts (or a total of 115 courts) as special Environmental Courts, with jurisdiction to try and decide violations of environmental laws. This was done based on an inventory and assessment of pending environmental cases. The objective is to improve efficiency in the administration of justice, and to provide greater access to environmental justice, by having these courts in places where environmental violations were shown to be most frequent, and providing judges with specialized skills and knowledge relevant to the cases prevalent in their area.

Environmental cases pending at the time of the issuance of the Court’s Administrative Order were required to be transferred to the special courts, except those civil cases where pre-trial had commenced and criminal cases where the accused had already been arraigned, which remained in the branches where they were originally assigned. New environmental cases shall be assigned (or raffled, in case of localities where more than one environmental court has been designated) to the special courts. The special courts, however, continue to handle criminal, civil and other cases.

8. *Citizens and Citizens’ Organizations*

Participation by citizens and citizens’ organizations in ENR management can either be through participation in decision- and policy-making, or through participation in the direct management of the resource.

Participation in decision- and policy-making is enshrined in the 1987 Constitution. Its elevation to constitutional status is an off-shoot of democratization efforts following the 1986 People Power Revolution. The Constitution states that “the right of the people and their organizations to effective and reasonable participation at all levels of social,

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political, and economic decision-making shall not be abridged.” (Article XIII, section 16) Thus, the State is mandated to facilitate the establishment of adequate consultation mechanisms by law.

Participation in ENR decision- and policy-making is addressed by requirements contained in various laws such as:

- (a) public participation processes in the conduct of environmental impact assessment;
- (b) NGO and/or community representation in the PAMBs, FARMCs, Airshed Governing Boards, National Solid Waste Management Commission and local Solid Waste Management Boards, and water quality management boards, as discussed in earlier sections;
- (c) the requirement to consult NGOs, People’s Organizations (POs) and other sectors of the community before a national government agency implements a program or policy in their locality;
- (d) NGO membership in local development councils;
- (e) NGO representation in the Palawan CSD; and
- (f) the Free and Prior Informed Consent (FPIC) requirement under the IPRA. The FPIC of the concerned IP community is required before any government agency issues, renews, or grants any concession, license or lease, or entering into any production-sharing agreement, within an ancestral domain; and
- (g) Civil society counterpart representation in the Philippine CSD.

On the other hand, participation in direct management comes in the form of community-based natural resource management. Examples of this are the CBFM program and community-based coastal resource management (CBCRM) projects. Community-based management is also enshrined in the IPRA, which gives IPs the right to develop, control and use lands and territories traditionally occupied, owned or used by them, and to manage and conserve natural resources within the territories and uphold responsibilities for future generations.

9. *Business/Private Sector*

Between environmental management and natural resources utilization, participation by the private sector has traditionally been more vigorous in the latter. At present, the private sector can participate in natural resources utilization through three methods: production sharing, joint venture and co-production agreements.

Recent environmental laws, however, have expanded the role of business through mechanisms such as:

- (a) membership in the Airshed Governing Board, the NSWMC, local Solid Waste Management Boards and the water quality governing board;
- (b) accreditation of private emission testing centers under the Clean Air Act; and

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- (c) incentive schemes, under the Ecological Solid Waste Management Act, for enterprises or private entities that develop or undertake effective solid waste management; and
- (d) requirement for an Environmental Protection and Enhancement Program for mining contractors.

Increased compliance with environmental standards has also been sought through market-based instruments, such as:

- (a) Exemption of pollution control devices from real property taxes under the Mining Act;
- (b) Environmental Guarantee Fund requirement under the guidelines of the EIS System, the implementing rules of the Mining Act, and the Clean Air Act; and
- (c) Environmental user fees (e.g., emission charge system under the Clean Air Act, wastewater discharge system under the Clean Water Act).

10. Government-Owned or –Controlled Corporations (GOCCs)

A couple of other GOCCs participate in ENR management.

The Philippine Forest Corporation is a wholly-government-owned and -controlled corporation. It is a subsidiary of the DENR's NRDC. Its main goal is to provide assistance to the landless in acquiring tenurial rights and undertaking agro-reforestation projects in idle lands.

The National Resources Mining and Development Corporation is another wholly-government-owned and -controlled corporation, attached to the DENR. Its primary purpose is to conduct and carry on the business of exploring, developing, mining, smelting, and producing, transporting, storing, distributing, exchanging, selling, disposing, importing, exporting, trading and promotion of gold silver, copper, iron, and all kinds of mineral deposits and substances.

IV. CHALLENGES AND ISSUES

“We have more than enough laws, but we cannot seem to enforce them,” is a commonly-heard complaint among Filipinos. (Asian Development Bank, 2004) This section analyses the reasons for this, with particular focus on institution-related challenges and issues.

A. Lack of Financial, Human and Technical Resources

1. Financial Resources

While the government has laid down strong policy pronouncements in favor of ENR management, there appears to be a disparity between these pronouncements, and the resources that it has committed to carry out what needs to be done. ENR management receives a very small share of the national budget. To illustrate, in 1998, total DENR expenditures were estimated at about PhP4.2 billion, or about 0.8 % of the national budget. (Asian Development Bank, 2004) In fact, the DENR's percentage share in the national budget has, with a few exceptions, steadily declined from year to year—from about 1.2% in the late 1990s, to about 0.7% in 2005. (World Bank, 2007b)

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The declining budget is only part of the problem. A number of other issues have been observed with respect to how the DENR's allocation is spent and distributed among its many functions and units, specifically:

- (a) Increasing expenditure on personnel services, at the expense of maintenance and other operating expenses (MOOE) and capital outlays (CO)

Personnel costs consist of salaries, wages, other personal compensation, incentives and bonuses, and contributions to retirement plans. MOOE consist of annual consumable items, such as travel, training, supplies and materials, advertising, repairs and maintenance. CO includes the acquisition and improvement of assets.

Between 1990 and 2005, personnel costs have increased significantly, while CO has decreased correspondingly. In 1990, personnel costs accounted for 31% of the DENR's budget, and CO, 43%. By 2005, personnel costs accounted for 62%, while CO, only 12%. MOOE has remained at around 25%. (World Bank, 2007b)

- (b) Routine expenditures

As a consequence of the foregoing, the DENR has very little to spend on development expenditures. To illustrate, between 1998 and 2002, nearly all of the budget of the four DENR bureaus involved in NR management (namely, FMB, LMB, MGB and PAWB) was used for routine expenditures. Only 3% was allotted for development expenditures. (World Bank, 2003)

- (c) Sectoral allocations reflecting old mandates and priorities

Historically, the DENR has been focused on forestry. This continues to be reflected in its budget, notwithstanding the emergence of newer mandates and more pressing concerns. To illustrate, as of 2006, the FMB received more than 25% of the DENR's budget. In contrast, the EMB—which is tasked to carry out the mandates of new laws such as the Clean Air Act, Ecological Solid Waste Management Act, and Clean Water Act—received only 5%. The PAWB, on the other hand, received only 4%. (World Bank, 2007b)

- (d) Fragmentation across too many programs, projects and activities

Budget allocations are fragmented across too many programs and projects. Priority programs change from year to year and with each new DENR secretary, and the DENR does not assess their effectiveness or needs for additional funding before choosing and funding new ones. This has limited the effectiveness of these programs. (World Bank, 2003a)

Given limited financial resources, some legislated mandates have insufficient funding. These include:

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(a) the Clean Air Act

Because appropriations were not provided for the implementation of the Act, as of 2004, only preliminary steps have been taken, such as the preparation of the National Air Quality Status Report, the designation of airsheds, and implementation of airshed regulations. Most steps were undertaken through a loan from the Asian Development Bank. (Asian Development Bank, 2004)

(b) the Clean Water Act

The availability of funds to mobilize resources for effective and efficient enforcement continues to be one of the greatest challenges to water quality management. (Department of Environment and Natural Resources, 2001-2005)

2. *Human and Technical Resources*

The DENR has one of the highest staff complements in the public sector. As of 2001, it was the fifth largest employer in the government (coming after the DepEd, State Universities and Colleges, DOH, and the judiciary), with 21,023 permanent employees. Notwithstanding this, it is widely-complained about that the department is severely undermanned.

To be more accurate, though, the problem appears to lie, not in the number of existing personnel, but in the way they are distributed, and in the skills they possess. As in the case of its budget, the DENR's staffing pattern continues to reflect old mandates and priorities. It has been said that the department's staffing pattern is that of an agency whose main thrust is resource extraction, rather than resource management. A great number of DENR personnel are involved in forest management. (Asian Development Bank, 2004) In contrast, the EMB—which is saddled with numerous functions under both old (Philippines EIS System Law) and new (Clean Air Act, Ecological Solid Waste Management Act, Clean Water Act) laws—had only 632 personnel (out of the DENR's more than 20,000), as of 2002. As a result, the EMB has had difficulty in fulfilling its mandates. For example, one of the greatest deficiencies in the implementation of the EIS is with regard to compliance monitoring. The EMB has reportedly been able to monitor only 18% of the total number of projects to which ECCs have been issued. (World Bank, 2007a)

Gaps in technical capacity, on the other hand, were found in the following areas:

(a) Environmental impact assessment

The EMB does not have the capability to conduct a technical review of the EIS report. The technical review is done by an independent EIA Review Committee, which operates outside the DENR. (World Bank, 2007a)

(b) Water quality management

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According to the National Water Quality Status Report for 2001-2005, one of the key challenges to water quality management is inadequate capacity on data collection, data compilation and management, data assessment and interpretation, and information reporting. The EMB needs to upgrade its equipment and laboratory facilities, acquire portable testing equipment, increase manpower its complement and resources. (Department of Environment and Natural Resources, 2001-2005)

(c) Coastal resource management

The capacity of the DENR and other national agencies (as well as LGUs) to manage coastal resources is limited. They need technical guidance, increased budget, personnel, training, and other technical support. (World Bank, 2005)

B. Fragmented and Overlapping Responsibilities

As seen in a previous section, there are numerous government agencies involved in ENR management. As such, overlaps and conflicts have been inevitable. Overlaps and conflicts manifest in the following ways:

- (a) situations where different aspects of the management of a specific resource is divided among several institutions or agencies;
- (b) situations where the management of two or more resources is lodged with two or more agencies, whose policies and programs conflict when applied to a specific locality where these resources concur;
- (c) situations where the line separating the responsibilities of national government agencies (NGAs) and special, multi-jurisdictional bodies is unclear; or
- (d) situations where the line separating the responsibilities of NGAs and local agencies, or of two or more local agencies is unclear.

The first situation is seen in the case of water and land. In the case of water, there are about 30 government agencies involved in water resource management, with mandates covering water resources planning, assessment, water quality, sanitation, pollution control and watershed management. These include the DENR, EMB, DOH, DOST, NWRB, BFAR, the Philippine Coast Guard, local water utilities, Metropolitan Waterworks and Sewerage System (MWSS), LLDA, and National Irrigation Administration (NIA). (World Bank, 2003b) On the other hand, land administration functions are divided among several agencies, including the LMB, the Land Registration Authority and NCIP.

The second situation is illustrated by the case of Samar, where a protected area (the Samar Island Natural Park or SINP), established in 2003, overlaps with a bauxite mineral reservation (the Samar Bauxite Mineral Reservation or SBMR), established in 1977. Two mineral production sharing agreements (MPSAs) were issued in the area in December 2002, while the establishment of the protected area was nearing completion.

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As noted in an earlier section, protected area establishment is primarily a function of the PAWB, while mineral development is that of the MGB. The PAWB and the MGB are both agencies of the DENR. Asked why the MPSAs were issued despite the impending establishment of the protected area, the PAWB claims that the MGB did not consult the other DENR bureaus concerned, a claim which the MGB denies. On the other hand, the MGB alleges that it was not consulted in the process of the establishment of the SINP. (Pamfilo, 2008b)

The foregoing exemplifies sector-based planning and management, which has been criticized for its inability to consider and examine ENR trade-offs in the planning stage. Trade-offs only manifest themselves in the implementation stage, giving rise to inter-sectoral conflicts. (Asian Development Bank, 2004)

The third situation is illustrated by the cases of the Palawan CSD and the Subic Bay Metropolitan Authority (SBMA). In the past, questions have arisen as to who between these agencies, on one hand, and the DENR, on the other, have the authority to issue ECCs in the province of Palawan and the Subic Bay Special Economic Zone (SEZ), respectively. These questions were resolved through Memoranda of Agreement entered into between the DENR and these agencies. In the case of Palawan, a clearance issued by the Palawan CSD (known as the SEP Clearance) is a pre-requisite to the processing and issuance of an ECC. On the other hand, in the Subic Bay SEZ, the SBMA Ecology Center was given a recommendatory role in the granting of ECCs, with the DENR retaining the lead role. (World Bank, 2007a)

The fourth situation will be discussed in a subsequent section dealing with LGUs.

There have been efforts in recent years to put in place mechanisms for better inter-agency coordination. Mechanisms include the PAMB for protected areas under the NIPAS Act, the Airshed Governing Boards under the Clean Air Act, the NSWMC and local Solid Waste Management Boards under the Ecological Solid Waste Management Act, the water quality management boards and the mandate for the DENR to coordinate with other agencies performing water-related functions under the Clean Water Act.⁸

Inasmuch as the creation of the bodies under the Clean Air Act, the Ecological Solid Waste Management Act and the Clean Water Act is a relatively recent development, it appears that there are, as yet, no comprehensive studies assessing their level of their effectiveness. An assessment of some of these bodies will be attempted in the final version of this work.

In contrast, PAMBs have been observed to be effective mechanisms for improving inter-agency and multi-sectoral cooperation. Data from sites funded by the World Bank-Global Environment Facility show that PAMBs have facilitated the discussion of natural resource management issues and the implementation of concrete actions and initiatives

⁸ Furthermore, there are a number of memoranda and circulars jointly issued by two or more national government agencies in an effort to harmonize their functions and improve cooperation. These, however, are not included in the scope of this paper.

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on the ground. (World Bank, 2003) It is safe to say, however, that the availability of funding support contributed greatly to the PAMBs' effectiveness, and that many PAMBs all over the country are not similarly well-funded.

C. Contradictory DENR Roles

As stated in an earlier discussion, the DENR is tasked with both protecting the environment and conserving natural resources, on one hand, and promoting the utilization of natural resources, on the other—functions which some see as conflicting. Criticisms have been raised that the latter has been favored at the expense of the former, especially in light of the government's National Minerals Policy, under which the government has been aggressively promoting mining in its drive for economic growth.

While these two functions are *per se* not mutually exclusive, it should be noted that the Philippines has had a much longer history with policies focusing solely on natural resource exploitation. Thus, although recent policy pronouncements have placed emphasis on conservation, management, and proper use of the environment and natural resources, the bias towards exploitation remains imbedded even in the actions and decisions of the DENR to this day.

D. Constraints in Local ENR Management

As earlier discussed, LGUs and local bodies are mandated to carry out a large number of ENR management functions under the Local Government Code and various ENR laws. However, LGUs' discharge of these functions has been hampered by a number of factors, ranging from attitudes and misconceptions, to legal ambiguities, to lack of resources.

1. Low priority given to ENR management

Many LGUs have not fully internalized the major role given to them under various laws and have shown a lukewarm attitude towards ENR management. Consequently, they are unwilling to invest sufficient effort and resources in the ENR management. This attitude can be traced to a number of factors, namely:

- (a) lack of awareness on the value of good ENR management, and its potentially significant contribution to the local economy, disaster mitigation and public health;
- (b) slow rate of return of ENR investments, whose results are not immediately manifested;
- (c) blurred lines of responsibility between the NGAs, especially the DENR, and LGUs; and
- (d) low sense of accountability for poor ENR management.

2. Lack of financial, human and technical resources

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The same problems experienced by the DENR at the national level hound LGUs and local bodies—lack of financial, human and technical resources.

(a) Financial resources

It has been observed that there is a mismatch between the resources transferred to LGUs and the functions devolved to them. There is a disconnect between environmental objectives set at the national level and the financial capacity to achieve these objectives at the local level. (Development Alternatives, Inc., 2005)

Compounding this, LGUs tend to depend on their Internal Revenue Allotment (IRA), rather than generate their own revenue through vigorous local tax effort and imposition of user charges for environmental services and use of natural resources. (Manasan, 2003) Moreover, they lack awareness of their ability to borrow, and have little incentive to undertake environmental services projects. (Development Alternatives, Inc., 2005)

LGUs' 40% share in the exploitation of national wealth found within their territorial jurisdiction, as mandated by the Local Government Code, is a potential source of funding. However, many LGUs have experienced delays in the release of their share, from the National Treasury. (Manasan, 2003) Bills proposing direct payment of the shares by the NR users to the LGUs have not prospered in Congress.

Likewise, user fees collected in protected areas were intended to be a source of funds for local protected area management. However, not only are funds insufficient, fees collected must first be remitted to the National Treasury before they are reallocated back to the protected areas at inadequate amounts. This has left protected areas with inadequate financing for their operations. (World Bank, 2005b)

(b) Human and technical resources

To begin with, ENR management functions were devolved to LGUs without observing any criterion for readiness. (de Rueda, 2007) Making the situation more difficult, not enough personnel were devolved, and sufficient technical assistance was not provided.

Only 4% of DENR personnel were devolved to LGUs, as compared to 50% by other agencies. (Manasan, 2003) Moreover, LGUs were practically left to their own devices in the areas of fisheries and forestry. While many of the DENR staff devolved to LGUs were trained in forestry, the DENR failed to provide technical assistance to the LGUs on how to properly organize and supervise these staff. (de Rueda, 2007)

These problems have been compounded by the imposition of new responsibilities by the Clean Air Act, Ecological Solid Waste Management Act and Clean Water Act. It has been observed that compliance with all the provisions of the Ecological Solid Waste Management Act is beyond the capacity of most LGUs. Many LGUs do not have the budget or trained personnel to implement activities, particularly the construction of sanitary landfills. On the other hand, national and regional offices of the DENR have very

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few staff equipped with the necessary technical skills to assist LGUs. (Development Alternatives, Inc., 2005)

3. *Unclear institutional arrangements*

At the local level, there are numerous agencies involved in various aspects of ENR management, with the presence of the DENR's regional, provincial and community-level offices, the LGU's own Environment and Natural Resources Officer, local legislative councils and local-level offices of national government agencies (e.g., DA-BFAR, NCIP). The responsibilities of these agencies are often unclear and overlapping. Each agency relies on different maps and data sets, and their decision-making is often driven by different considerations. It is often unclear what has been devolved to which institution, and because of this, it is difficult to evaluate or hold institutions accountable. (World Bank, 2003a)

Manasan (2003) notes that, at first blush, the devolution of functions is clear. However, a closer reading of the Local Government Code would reveal that powers given to the local legislative bodies are broader than the basic services devolved to LGUs, and overlap with DENR functions. This has resulted to confusion as to what precisely are the respective responsibilities of the LGUs and NGAs. Effectively, the system encourages the existence of a two-track delivery system, where both NGAs and LGUs can perform the same ENR services.

Irritant in National Government-LGU relations – Mining

A prime example of the situation described above can be seen in the mining sector. Many LGUs have, pursuant to their responsibility to promote the general welfare (Local Government Code, section 16) and their authority to enact ordinances to protect the environment (Local Government Code, sections 447, 458 and 468), passed ordinances and resolutions imposing a moratorium on large-scale mining in their respective localities, citing environmental and social concerns.⁹

The national government, through the Department of Justice, has taken the position that ordinances of this nature are invalid, for local legislative councils cannot undo acts of Congress and negate by ordinance the mandate of statute. The Philippine Mining Act mandates the rational exploration, development and utilization of mineral resources, and has lodged the authority to regulate large-scale mining in the national government, through the DENR. In contrast, only small-scale mining has been placed under the jurisdiction of cities and provinces.

It is submitted, however, that ordinances and resolutions of this nature should be read in conjunction with provisions of the Local Government Code (sections 2, 26 and 27) requiring the national government to consult LGUs before implementing

⁹ They include the provincial governments of Eastern, Northern and Western Samar, Mindoro, Marinduque and Capiz, and the city government of Puerto Princesa.

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environmentally-sensitive projects within the latter's territorial jurisdiction, and to secure the endorsement of the pertinent local legislative council. In this context, ordinances and resolutions imposing a mining moratorium may be read as a refusal to endorse applications to conduct large-scale mining in their locality.

The confusion as to lines of responsibility appears to occur not only between NGAs and LGUs, but also among different units within an LGU. This is seen in a 2007 development in the province of Pampanga, where the *Sangguniang Panlalawigan* (Provincial Board) enacted an ordinance taking small-scale quarrying out of the administrative jurisdiction of the Provincial Governor, and giving this to municipal mayors, notwithstanding that under the Philippine Mining Act and the Small-Scale Mining Act, small-scale mining (including quarrying) were placed under the Provincial Governor or City Mayor, as the case may be, and the P/CMRB.

4. *Incomplete devolution*

According to Manasan (2003), local autonomy in ENR management is actually limited despite the seemingly categorical language of the Local Government Code. A lot of devolved functions remain subject to the control and supervision of the DENR, such as in forestry and small-scale mining.

E. *Backlog in Legislation*

As stated in an earlier section, the legislature participates in ENR management through appropriations for ENR-related services, and through the enactment of ENR laws. Inadequacies in appropriation have already been discussed. Apart from this, however, another problem has been attributed to the legislature, *i.e.*, the delay in the passage of important ENR laws. Certain ENR laws have been found to be outdated, and newer, more responsive laws are needed, specifically:

- (a) a Sustainable Forestry Act, to replace the 1970s-era Revised Forestry Code;
- (b) a new Public Land Act, to replace Commonwealth Act No. 141.

Also much needed are a National Comprehensive Land Use Law and a Land Administration Authority Law.

Delays have also been noted in the enactment of laws establishing protected areas, as required under the NIPAS Act.

F. *Improving Citizens' Participation*

1. *Participation in decision- and policy-making*

The Philippines has a vibrant citizens' organization movement. As of 1995, there were about 60,000 non-stock, non-governmental institutions—50,000 NGOs and 10,000 POs.

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The number of development NGOs is about 3,000 to 5,000, and a small percentage of these are devoted solely to the environment. (World Bank, 2004) Areas of public policy where NGOs have had the most significant impact include tenurial systems in the uplands, indigenous rights, community forestry, and coastal fisheries management. (World Bank, 2003a)

Participation by citizens and citizens' organizations is backed by a strong legal framework. However, a number of factors hinder participatory mechanisms from being wholly effective. These factors include:

(a) Poor access to environmental information

Environmental information is critical in promoting environmental consciousness among the public and facilitating their participation in ENR management. In the Philippines, access to information is a constitutionally-protected right. Section 7 of the Constitution's Bill of Rights recognizes the right of the people to information on matters of public concern. Thus, it mandated that access to official records, and to documents and papers pertaining to official acts, transactions, or decisions, as well as to government research data used as basis for policy development, be afforded citizens, subject to such limitations as may be provided by law. The Supreme Court has held that this right is self-executing and may be asserted by any citizen without need for any legislative enactment.

Notwithstanding the constitutional guarantee, however, environmental information in the country remains relatively inaccessible. In 2004, the Asian Development Bank observed that access to environment information in the country is hampered by the following: (i) insufficient basic data and information; and (ii) inadequate management, dissemination, and sharing of data. This was affirmed by the assessment conducted by The Access Initiative-Philippines in 2007, which found that government appeared to lack the commitment and the systems to collect and store information, and to provide them to the public in an accessible and comprehensible format and in a timely manner. Moreover, there appeared to be very little appreciation for the public's right to information within the bureaucracy, where the provision of information is often viewed as discretionary, and not mandatory.

(b) Lack of mechanisms for transparency in local decision-making

As noted earlier, the Local Government Code requires the national government to consult LGUs and to secure the approval of the pertinent local legislative council before it can implement a program or project in a given locality. However, there is no parallel, unequivocal mandate upon LGUs, relative to their constituents. This has allowed LGUs to endorse mining applications despite strong public sentiments to the contrary, as what happened in the municipality of Brooke's Point in the province of Palawan.

Residents of the municipality claimed that the resolution endorsing the mining activity of a certain mining company was passed by the *Sangguniang Bayan* (Municipal Council) with undue haste and without conducting any public consultations. This led to various

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forms of concerted action by civil society groups, such as the signing of petitions, and the conduct of dialogues, forums and rallies. Failing to convince the local government to change its decision, the same groups initiated a petition for recall against the local chief executive. While the petition complied with the basic requirements set by the law, the initiative did not prosper because the Commission on Elections failed to hold a recall election allegedly due to lack of funds. (Pamfilo, 2008a)

(c) Lack of mechanism for feedback and/or integration of inputs

While there are numerous legal provisions requiring the conduct of public consultations, case studies conducted by The Access-Initiative Philippines in 2006 found a lack of corresponding requirements to give the public feedback on the disposition of comments and opinions gathered during the public consultations. Furthermore, the same case studies found that public inputs seldom influenced the final outcome of the decision.

(d) Overlapping jurisdictions

The large number of institutions involved in ENR management and their overlapping jurisdictions have also provided an additional barrier to effective public participation. This is apparent in the case indigenous peoples and small fishers in the southern part of the province of Palawan, who were affected by the creation by the LGU, through a municipal ordinance, of a marine protected area (MPA), allegedly without any public consultations. While the creation an MPA in municipal waters falls under the jurisdiction of the LGU, the area is also under the jurisdiction of the Palawan CSD, insofar as the ECAN zoning of marine waters is concerned, and the NCIP, since the area falls within an ancestral domain claim. Furthermore, municipal ordinances are subject to review by the *Sangguniang Panlalawigan* (Provincial Board), and the creation of MPAs is subject to consultation with the BFAR. The overlapping jurisdictions of these agencies has sown confusion as to which one is supposed to accord the public with opportunities for participation prior to the creation of an MPA, and has allowed the responsible agency to evade its responsibility. (Pamfilo, 2006)

2. *Participation in direct management*

Participation in direct management comes in the form of community-based natural resource management. As stated earlier, CBFM was enunciated as a formal policy in the 1990s. So far, CBFM has had mixed results. Improvements in forest management were observed where community groups acting as resource manager received adequate funding and technical support from the national and local governments and funding agencies. However, many areas set aside for community forestry are not under effective management due to budgetary and technical constraints.

At present, challenges include:

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- (a) how to link community-based initiatives to the private sector in order to tap financial and technical resources, and to raise the output of these initiatives to globally-competitive levels;
- (b) how to harness indigenous knowledge in managing resources. A study observed that they younger generation of IPs are no longer aware of indigenous knowledge systems and practices. Research and documentation may be necessary in this regard.

G. Increasing Private Sector Participation

The private sector can be a valuable partner in ENR management, as shown by the moderate success of privately-managed forest lands (under instruments like Industrial Forestry Management Agreements).

The private sector has also initiated various ENR projects under their corporate social responsibility programs. Beyond these voluntary activities, however, more substantial private sector participation and investment in ENR management should be encouraged (*e.g.*, operation of sanitary landfills).

H. Improving Access to Justice

The Philippines has a comprehensive regulatory framework. However, this appears to have been a poor deterrent to acts harmful to the environment. This is mainly because of poor enforcement, because of which the probability of apprehension and punishment remains low. Studies conducted by NGOs disclose a low number of cases being filed in court, despite the high number of violations. While national level statistics are not available at this time, the situation in the province of Palawan, which is the country's last ecological frontier, may be indicative. Over a four-year period, out of some 14,000 known incidents of fishery law violations, only 40 arrests were made, 33 cases reached the courts, which resulted in only five convictions. (Melencio Herrera, 2007) Furthermore, the assessment conducted by The Access Initiative-Philippines reveals that extensive delays in proceedings (in some cases extending up to 10 years) and the costs associated with bringing a case in court constitute substantial barriers to access to justice.

Certain procedural and evidentiary rules applicable to cases in general have also been observed to be inappropriate for environmental cases, given the latter's peculiar nature. These include rules on standing, class suits, accrual of cause of action, establishing causation, and handling and custody of evidence. (Ynares-Santiago, 2007)

V. RECOMMENDATIONS

A. On Financial, Human and Technical Constraints

1. Addressing Financial Constraints

(NOT FOR ATTRIBUTION; FOR DISCUSSION PURPOSES ONLY)

Given the country's poor fiscal position, limited financial resources is a problem that the DENR and other agencies with ENR management functions share with the rest of the bureaucracy. To address the ENR sector's financial needs despite this limitation, reforms are necessary in both demand and supply sides.

On the demand side, the government may want to consider streamlining the bureaucracy to free up a portion of the budget devoted to personnel services, which can instead be used for needed capital outlays and development expenditures. The government may also consider dispensing with some functions and processes that add little value to ENR management. An example of this is the continued conduct of environmental impact assessment for projects whose environmental impacts are already well-known and to which routine control measures can simply be applied. In this case, an option would be to tighten the EIA screening process. (World Bank, 2007a)

The government may also choose to focus on selected priority programs, or priority areas to ensure impact, or start with tasks that can be completed despite limited resources. (World Bank, 2003a)

Planning and budgeting processes should also be aligned, so that newer mandates and priorities can be reflected in budgetary allocations.

On the supply side, there is a need to adopt innovative ways to generate more financial resources. This may include:

- (a) increasing the use of environmental user fees. While environmental user fees are already institutionalized in the law, this appears to have not been maximized. The extent of their application, however, has yet to be studied, and will be included in the final version of this work;
- (b) encouraging private sector investments in ENR management; and
- (c) tapping government-owned or –controlled corporations (GOCCs) and government financial institutions (GFIs).

International development agencies should be engaged with and encouraged to invest in longer-term, strategically-programmed undertakings.

2. *Capacity Building*

The DENR needs to realign its staffing as to reflect current priorities and mandates, and to build the capacity of its staff in areas where gaps have been identified.

B. Resolving Overlaps and Moving Towards Integrated Management

The current institutional set-up is characterized by two features: fragmentation and overlaps.

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To address these issues, a comprehensive review of ENR laws and institutions must be undertaken for the purpose of tracking down where the fragmentation and overlaps lie, and determining how to consolidate and/or reallocate mandates, powers and functions.

Efforts at improving inter-agency coordination (*e.g.*, institutionalization of PAMBs, Airshed Governing Boards, the NSWMC and local Solid Waste Management Boards, and water quality management boards) have been initiated and are laudable. However, these continue to reflect sector-based planning and management. That is, following these mechanisms, in any given locality, protected area management, air quality management and solid waste management would remain to be treated as separate concerns. The same is true for water quality management, coastal resource management and other concerns.

As earlier stated, sector-based planning is flawed in that it fails to take into consideration trade-offs in the use of resources, and tends to give rise to inter-sectoral conflicts. Integrated, spatially-based management has been offered as an alternative to this. Under this scheme, management units are organized around a critical resource following ecosystem boundaries. This has already been done in several areas, such as the Laguna Lake region and the Agno River Basin. To do this on a national scale, comprehensive land and water use planning must be done, and the basic planning and management units must be identified. In doing so, overlaps between planning and management units must be avoided.

The organizational structure, powers and functions of the body that will run the planning and management unit must be carefully considered. It must have adequate powers to ensure self-sustainability. It must be multi-sectoral and LGUs must be given a central role in it. There must also be adequate mechanisms for public participation, and transparency and accountability in decision-making.

The Palawan CSD and the LLDA have been cited as models in this respect. However, flaws in their organizational structure have also been pointed out. In the case of the Palawan CSD, its structure is divided into two—the Council proper, which is the policy-making body composed of representatives of national government agencies and elected local officials, and the Staff, which performs technical and support functions composed of regular professional staff. Past decisions of the Council proper have been criticized as highly-politicized and, in some cases, contrary to technical findings of the Staff.

In the case of the LLDA, its corporate nature does not give room for public participation in the actual decision-making process, inasmuch as decisions are made by a Board of Directors. (The Access Initiative-Philippines, 2006)

An examination of the experience of other countries, particularly Laos, in the integration of ENR management functions at the national and local levels will be included in the final version of this work.

C. On Local ENR Management

(NOT FOR ATTRIBUTION; FOR DISCUSSION PURPOSES ONLY)

1. *Providing enabling conditions*

Various experiences in the forestry, fisheries and solid waste management sectors have shown that local governments can be effective ENR managers, provided enabling conditions are present. First, they must be made to realize the value of the environment and natural resources, and assisted in formulating their vision for ENR management in their locality. Second, they must be given the space that would allow them a sense of ownership over ENR initiatives. Part of this would entail clarifying the boundaries between responsibilities of the national government and LGUs. Third, the DENR must be on hand to render technical assistance. Fourth, the formation of broad-based partnerships with communities and community groups and the business sector must be facilitated.

2. *Expanding the financial resource base*

As to budgetary constraints, LGUs may consider tapping into their share in the utilization of natural wealth, using private sector financing, maximizing user fees and establishing social enterprises (*e.g.*, eco-tourism). LGUs can also tap into local taxes and revenues generated from natural resource use (*e.g.*, quarry taxes) which, in the case of some localities like the province of Pampanga, can be quite substantial in amount.

Delays have been noted in the release to LGUs' share in natural wealth utilization. Automatic release or even direct payment of these shares to the LGUs should be reconsidered.

3. *Strengthening the role of LGUs*

The role of LGUS should be strengthened by:

- (a) removing DENR control over functions that have previously been devolved

At present, the DENR remains to have “control and supervision” over certain functions devolved to LGUs, namely, the implementation of community-based forestry projects, pollution control law, small-scale mining law and other laws on the protection of the environment. Control implies that the DENR may substitute its own judgment for that of the LGU, and supercede LGU actions. In these respects, DENR intervention should be limited to supervision, only to ensure that LGU action conform to existing laws and policies and are not in excess of jurisdiction or performed with grave abuse of discretion.

- (b) devolving other functions not previously devolved, subject to a readiness criterion

Further devolution can be done on a phased approach by starting with LGUs that are ready, *i.e.*, willing to assume additional responsibilities, allocate sufficient human and financial resources, and be accountable for ENR management. (World Bank, 2005b)

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Functions that can be devolved may include the administration of the EIS System, large-scale mining and other matters where the impacts and usual concerns raised are primarily local in scope.

It should be emphasized though that devolution is not possible for all activities, particularly those that transcend local borders and have broader impact. These activities have to remain centrally administered.

D. Re-defining the Role of the DENR

The role of the DENR needs to be re-defined in two significant ways:

(a) taking out utilization promotion functions

The apparent contradiction in the DENR's role as protector of the environment and promoter of NR utilization has been noted earlier. Various proposals have been put forward to remedy this situation. These include splitting the department into two—a Department of Environment and a Department of Natural Resources—or creating of an independent National Environmental Protection Agency.

It is submitted that the same end can be achieved by simply removing utilization promotion functions from the DENR, and transferring it to another body such as the Department of Trade and Industry (DTI) or an independent Natural Resources Mining and Development Corporation. Splitting the DENR into two must be avoided because this will only result in two weaker agencies. Likewise, environmental protection must continue to be lodged in a cabinet-level body in order to maintain its status.

(b) shifting from being “doer” to being an “enabler”

The enhanced role of LGUs and the movement towards integrated, spatially-based management require a corresponding shift in the role of the DENR. Under this set-up, the DENR's main role would be as a catalyst, coordinator and convenor. As such, its tasks would include:

- i. formulation of national-level policies;
- ii. coordination work for the integrated, multi-sectoral planning and management bodies;
- iii. building the capacity of, and providing technical services to, the aforementioned bodies and LGUs;
- iv. supervision of LGU-devolved functions;
- v. administration of phased devolution process.

It would continue, however, to perform regulatory functions for activities that have not been devolved.

E. On the Role of Citizens

(NOT FOR ATTRIBUTION; FOR DISCUSSION PURPOSES ONLY)

1. *Improving access to information*

There is a bill pending in Congress for a Freedom of Information Act. The proposed law provides: (a) that all information in the possession of the government are public, subject only to exceptions clearly defined in the law; (b) for a uniform and speedy procedure for access; (c) for speedy and adequate remedies to enforce the right, and administrative, criminal and civil liabilities for violations of the same; and (d) for the promotion of a culture of openness and transparency in the bureaucracy.

While the proposed law will facilitate the assertion of the people's right to information, it will have little impact in the ENR sector unless monitoring, data gathering and data storage capability is improved. The DENR needs to put in place an information and communications technology program that would integrate information scattered among different agencies.

2. *Improving mechanisms for participation*

While the legal framework for public participation is already strong, one glaring flaw is the absence of an effective mechanism to enforce compliance with the requirements set by law. Deterrents and speedy remedies against non-compliance with public participation requirements need to be put in place. This may come in the form of administrative imposition of penalties against non-complying officials, and administrative nullification of acts which did not pass through the required processes.

3. *Continued advocacy*

The demand for good ENR governance must be raised. Citizens and citizens' organizations have been successful in advocating for the passage of progressive environmental laws. This advocacy must be carried on to exact greater accountability in the implementation and enforcement of laws. Citizens' organizations should continue, if not intensify, critical engagement with government.

There are also existing legal tools that citizens can avail themselves of to compel the government to perform its duties. The Clean Air Act and the Ecological Solid Waste Management Act contain provisions allowing citizen's suits in case of government's failure to implement their mandate. Also, the Office of the Ombudsman has created a Task Force for Environmental Concerns to address complaints against national and local officials for non-compliance with environmental laws.

4. *Sustaining community-based NR management and consistent application of community-based NR management principles*

Community-based NR management initiatives must be linked to the private sector to ensure their sustainability. Financial and technical resources available to the private

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sector must be tapped to raise the output of community-based initiatives to globally-competitive levels.

At this juncture, it may be proper to note that while conservation and the community-based approach have been given stronger emphasis in the forestry and fisheries sectors since the 1990s, the strong bias for commercial exploitation continues to influence the government's decisions at present, with regard to other natural resources that are still relatively underdeveloped (*e.g.*, minerals, oil and natural gas). Given the trend observed in the forestry and fisheries sectors, the government should approach mineral, oil and gas utilization bearing in mind conservation-community based management principles now being applied in the use of forestry and fisheries resources.

5. *Creating and strengthening multi-sectoral partnerships*

Multi-sectoral partnerships are indispensable for good ENR governance. The government should continue to foster partnerships with the citizens' sector and the private sector.

F. Improving Access to Justice

The recent designation of environmental courts by the Supreme Court is a positive development. However, this is only an initial step as there are still a number of measures needed to make these courts fully functional and more effective. These include:

- (a) an enhanced training program for environmental court judges; and
- (b) amendment of procedural and evidentiary rules that appear to be inappropriate for environmental cases given their peculiar nature.

The low number of cases being filed in courts despite the huge number of violations suggests that other pillars of justice, namely, law enforcement and prosecution, need to be strengthened as well.

And while the designation of environmental courts may ease the backlog of cases, extensive delays experienced in case disposition indicate the desirability of promoting alternative modes of dispute resolution (ADR). In 2005, the DENR issued an administrative order adopting ADR principles and procedures in the resolution of ENR conflicts. It may be timely to look into the implementation of this order and examine how it can further be improved. (The Access Initiative-Philippines, 2007)

The situations described above further suggest the desirability of intensifying the use of voluntary mechanisms and other market-based instruments to enforce compliance.

G. The Need for an Environmental Champion

Success stories have been noted in the implementation of local government initiatives on clean air, solid waste management and/or forestry conservation, in cities such as San Fernando (La Union), Puerto Princesa (Palawan) and Marikina. A common characteristic

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among these LGUs is the presence of a strong local chief executive with a clear environmental perspective and vision. Political will is a key ingredient to effective ENR management—an ingredient that appears to be lacking in many LGUs and in the national leadership. There is a need for environmental champions in government, both at the national and local levels.

H. The Role of Legislation

As it is, the Philippines has a good set of environmental laws. Thus, much of the reform needed to improve ENR management can be done through executive action. These include:

- (a) expanding the financial base for ENR management activities;
- (b) realigning DENR's personnel to reflect its current mandates;
- (c) building and strengthening partnerships with citizens' organizations and the business sector;
- (d) provision of technical assistance to LGUs and community groups engaged in ENR management;
- (e) stepping-up environmental monitoring efforts; and
- (f) consistent use of the conservation-community based approach for relatively undeveloped resources (such as minerals).

Legislation is needed, however, to carry out some of the reforms, particularly in institutionalizing the integrated, spatially-based management approach, and re-defining the role of the DENR.

Recommendations for Improving the EIS System

A recent World Bank Study concluded that the Philippine EIS System has been effective as an action-forcing mechanism. That is, it is able to compel project proponents to disclose the impacts of their projects and undertakings. However, its effectiveness as a planning tool has been limited, and its contribution to the achievement of sustainable development is difficult to pin down.

Given the foregoing, the study put forward the following recommendations:

- (a) maximizing the contribution of the EIS to local planning and decision-making through decentralization and de-concentration of environmental assessment functions;
- (b) improving the quality of the environmental assessment process, focus and depth of assessment, and overall quality of the environmental assessment reports;
- (c) streamlining and simplifying requirements as to make it more cost effective for the project proponent, the DENR and the economy in general;
- (d) focusing environmental assessment resources on environmentally critical projects and prioritizing the mapping of environmentally critical areas;

- (e) moving towards strategic environmental assessment; and
- (f) subjecting proposed new environmental regulations to cost-benefit or impact studies.

(World Bank, 2007a)

VI. CONCLUSION

The Philippines has a robust and comprehensive ENR management policy and legal framework. Sustainable development as a key guiding principle of ENR management has been enshrined in the major policy pronouncements. However, the bias for maximum and commercial utilization imbedded in earlier government policies continues to influence decisions in the present and needs to be re-examined.

Despite the strong policy and legal framework, implementation and enforcement have been impeded by constraints in financial, human and technical resources. Hence, there is a need for reform in these aspects, in both demand and supply sides. Likewise, the current organizational structure of the environmental bureaucracy needs to be modified to facilitate effective ENR management. The bureaucracy needs to be re-organized following an integrated, spatially-based management scheme. Also, utilization promotion functions should be removed from the DENR to resolve seemingly conflicting mandates.

The role of LGUs must be further expanded. Experiences have shown that they can be effective resource managers provided enabling conditions are present. These conditions must be provided to them.

Despite the comprehensive regulatory framework, the threat of penal sanction appears to be a poor deterrent to acts harmful to the environment because the probability of apprehension and punishment remains low. Access to environmental justice needs to be improved, and the recent creation of Environmental Courts is a significant development. This must be complemented by capacity building, and by the intensifying the use of alternative modes of dispute resolution to resolve disputes, and market-based instruments to enforce compliance.

Multi-sectoral partnerships with the citizens' and private sectors, which are indispensable for effective ENR management, must be broadened and strengthened, and citizens and the private sectors' participation in ENR management must be increased.

(NOT FOR ATTRIBUTION; FOR DISCUSSION PURPOSES ONLY)

References

- Asian Development Bank. 2004. Country Environmental Analysis for the Republic of the Philippines.
- Asian Development Bank. 2008. Country Environmental Analysis Update (2008). Draft.
- Bryant, R. 2001. "Explaining State-Environmental NGO Relations in the Philippines and Indonesia." *Singapore Journal of Tropical Geography* 22(1).
- Buenavista, G., A. Sumbalan and I. Coxhead. 2002. "How Do Research Projects Influence the Design of Local Policies for Environmental and Natural Resource Management?" *Philippine Institute for Development Studies Development Research News*. Volume XXIX, No. 1. First Semester 2002.
- de Rueda, R. 2007. "Reinventing Forestry Agencies of the Department of Environment and Natural Resources, Philippines: A Case Study."
- Department of Environment and Natural Resources. National Air Quality Status Report, 2002.
- Department of Environment and Natural Resources. National Air Quality Status Report, 2003-2004.
- Department of Environment and Natural Resources. National Water Quality Status Report, 2001-2005.
- Department of Environment and Natural Resources-Environmental Management Bureau and World Bank. An Assessment of the Philippine EIS Monitoring and Evaluation System: 1977-2003.
- Development Alternatives, Inc. 2004. Completion Report of the Philippine Environmental Governance Project (EcoGov) Phase 1 (December 1, 2001-November 30, 2004).
- Development Alternatives, Inc. 2005. The Philippine Environmental Governance Project 2 Annual Report No. 1 (October 2004 – September 2005).
- Development Alternatives, Inc. 2006. The Philippine Environmental Governance Project 2 Annual Report No. 2 (October 2005 – September 2006).
- Elazegui, D. 2004. "Institutions and Water – the Vital Connections." *Philippine Institute for Development Studies Policy Notes*. No. 2004-03.
- Executive Order No. 927. 1983. Additional Powers of the Laguna Lake Development Authority.

(NOT FOR ATTRIBUTION; FOR DISCUSSION PURPOSES ONLY)

- Executive Order No. 192. 1987. The Reorganization Act of the Department of Environment and Natural Resources.
- Executive Order No. 230. 1987. Reorganizing the National Economic Development Authority.
- Executive Order No. 15. 1992. Creating a Philippine Council for Sustainable Development.
- Executive Order No. 370. 1996. Strengthening the Philippine Council for Sustainable Development.
- Israel, D. 2003. *The Quest for a Better Environment: Past Experiences and Future Challenges*. Philippines: Philippine Institute for Development Studies.
- Manasan, R. 2002. "Devolution of Environmental and Natural Resource Management in the Philippines: Analytical and Policy Issues." *Philippine Journal of Development*. Number 53, Volume XXIX, No. 1, First Semester 2002.
- Melencio Herrera, A. 2007. "Strengthening Court Capacity on Environmental Adjudication." Paper presented at the Asian Justices Forum on the Environment. Manila, Philippines, 6-7 July 2007.
- Ong, P. 2004. "The Philippine Biodiversity Crisis: A Time Bomb Waiting to Explode." *PHILJA Judicial Journal*. Volume 6, Issue No. 20, April-June 2004.
- Oposa, A. 2002. *A Legal Arsenal for the Philippine Environment*. The Philippine Islands: Batas Kalikasan.
- Pamfilo, J. 2006. *The Indigenous Peoples and Small Fishers of Southern Palawan: A Case Local Communities' Exclusion from the Management of Municipal Fisheries and Aquatic Resources*. Unpublished.
- Pamfilo, J., A. La Vina, I. Perez and M. Santos. 2008a. *Mapping Out Conflicts in Mining Areas: Drawing Lessons and Seeking Spaces for Building Consensus Towards Effective Mining Governance*. Philippines: Ateneo School of Government.
- Pamfilo, J., M. Santos and M. Dargantes. 2008b. *Mining and Biodiversity in Samar: A Review of Conflicts and Issues*. Philippines: Ateneo School of Government.
- Presidential Decree No. 705. 1975. The Revised Forestry Code.
- Presidential Decree No. 979. 1976. The Marine Pollution Decree.
- Presidential Decree No. 1067. 1976. The Water Code.

(NOT FOR ATTRIBUTION; FOR DISCUSSION PURPOSES ONLY)

Presidential Decree No. 1151. 1977. The Philippine Environmental Policy.

Presidential Decree No. 1152. 1977. The Philippine Environmental Code.

Presidential Decree No. 1586. 1981. The Environmental Impact Statement (EIS) System.

Republic of the Philippines. 1987. Constitution.

Republic of the Philippines. 1966. Republic Act No. 4850. An Act Creating the Laguna Lake Development Authority.

Republic of the Philippines. 1991. Republic Act No. 6969. The Toxic Substances and Hazardous and Nuclear Wastes Control Act.

Republic of the Philippines. 1991. Republic Act No. 7076. The People's Small-Scale Mining Act.

Republic of the Philippines. 1991. Republic Act No. 7160. The Local Government Code.

Republic of the Philippines. 1992. Republic Act No. 7586. The National Integrated Protected Areas System (NIPAS) Act.

Republic of the Philippines. 1992. Republic Act No. 7611. The Strategic Environmental Plan for Palawan Act.

Republic of the Philippines. 1995. Republic Act No. 7942. The Philippine Mining Act.

Republic of the Philippines. 1997. Republic Act No. 8371. The Indigenous Peoples Rights Act.

Republic of the Philippines. 1998. Republic Act No. 8550. The Philippine Fisheries Code.

Republic of the Philippines. 1999. Republic Act No. 8749. The Clean Air Act.

Republic of the Philippines. 2000. Republic Act No. 9003. The Ecological Solid Waste Management Act.

Republic of the Philippines. 2004. Republic Act No. 9275. The Clean Water Act.

Republic of the Philippines and the United Nations. 2007. Philippines Midterm Progress Report on the Millennium Development Goals.

(NOT FOR ATTRIBUTION; FOR DISCUSSION PURPOSES ONLY)

Rola, A. and I. Coxhead. 2004. "On Development Policies, Institutions and Upland Environment of Southeast Asia." Philippine Institute for Development Studies Development Research News. Volume XXII, No. 2. March – April 2004.

The Access Initiative-Philippines. 2006. Case Studies on Public Participation in Decision-Making on Environmental Matters. Unpublished.

The Access Initiative-Philippines. 2007. Independent Assessment on Access to Information on Environmental Matters. Unpublished.

The Access Initiative-Philippines. 2007. Independent Assessment on Access to Justice in Environmental Matters. Unpublished.

World Bank. 2001. Philippines Environment Monitor 2001.

World Bank. 2002. Philippines Environment Monitor 2002.

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

World Bank. 2003b. Philippines Environment Monitor 2003.

World Bank. 2004. Philippines Environment Monitor 2004.

World Bank. 2005a. Philippines Environment Monitor 2005.

World Bank. 2005b. Natural Resources Governance: Way Forward Action Plan.

World Bank. 2006. Philippines Environment Monitor 2006.

World Bank and Asian Development Bank. 2007a. The Philippine Environmental Impact Statement System: Framework, Implementation, Performances and Challenges.

World Bank. 2007b. Project Appraisal Document on a Proposed Loan in the Amount of US\$50 million and a Proposed Grant from the Global Environment Facility Trust Fund in the Amount of US\$7 million to the Republic of the Philippines for a National Support Program to Environment and Natural Resources Management Project.

Ynares-Santiago, C. 2007. "Framework for Strengthening Environmental Adjudication in the Philippines." Paper presented at the Asian Justices Forum on the Environment. Manila, Philippines, 6-7 July 2007.