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ENVIRONMENTAL GOVERNANCE IN THE PHILIPPINES

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I. INTRODUCTION

Governing the environment is a daunting task. It requires an understanding of the complexity of nature and the multi-dimensional processes of governance. The use of common property resources such as marine and forest resources subtracts from other potential users the benefits of harvesting products derived from future use. In the absence of governing structures and rules to define access and regulate unsustainable use, a common property resource is "open access" and, therefore, at risk of depletion.

Governance is defined broadly as "the establishment and operation of social institutions, set of roles, rules, decision-making procedures, and programs that serve to define social practices and to guide the interactions of those participating in these practices" (North 1990, in Young 1996). The concept of governance is not synonymous with "government", which conventionally plays a central role in formulating and translating inputs into public policy. The concept brings in the private sector, non-government entities, and local communities into what would otherwise be an exclusive process of allocating scarce resources. Governance accommodates groups and communities. It is not a monopoly of rule-making power by the state. The process of decision-making allows the use of participatory methods such as consultations, community mapping, social and livelihood analysis, and the like. The governance of the environment is different from "conventional" governance (Ramos 1997). The latter is bound by the territory of the governing, national or local.

Its lead actor is the state and its instrumentalities. Its foremost objective is maximum utility and development. The ecological governance process is not bound by the territorial confines of the nation-state or of local subdivisions. Nature requires a more integrated design, anchored on variables that include: (a) interdependent features based on nature's phases of "exploitation", "conservation", "renewal" and "release" (Holling and Sanderson 1996); (b) embedded social systems, conflicts and power relations; and, (3) local conditions (Hempel 1996; Chambers 1982). Hence, the notion of environmental governance acknowledges the importance of scale where *actual* use of resources occurs and of the local setting where decision-making occurs. Democracy is a salient ingredient in governance where access to both natural resources and decision-making channels converge to bring about sustainable use of resources and effective policy-making (Ramos 1997). Environmental governance concerns itself with participatory arrangements and targets the sustainable use of natural resources in order to guarantee the welfare of resource users. Central to this is the argument that local, as opposed to "expert" and external knowledge, is superior, and that traditional resource management systems can in fact be sustainable in the presence of rules of monitoring and enforcement that are collectively developed (Redclift 1996; Ostrom 1990; Chambers 1983).

Environmental governance today cannot be undertaken separate from its link with livelihood and power. The application of the principle of ecological sustainability is not relevant without addressing questions of *inter-generational equity, social justice* and *welfare*. In the larger political system, issues of preservation and sustainable use collide with globally contentious issues of trade-offs in consumption and efficiency, thereby raising questions that are now discussed around the larger discourse of the north-south divide.

Objectives of the Research

The Philippines entered the realm of environmental governance with the adoption of community-based approaches to resource management in the mid-1970s. The path has been tumultuous since the country has paid for the cost of tremendous loss in forest cover, depleted fishery resources, degraded coastal environment, loss in species and biodiversity and not to include loss of livelihood and displacement of communities. These phenomena as well as events in the local and international political systems have shaped both environmental politics and governance. In Hirsch (1998), this relationship between man and ecology is "reflexive" and results in an interfacing of politics, economics, social systems and environmental degradation, human activism and evolution of discourse. In this research, a major task is to probe into the role of the democratization process in the Philippines and determine how this phenomenon has shaped the politics of environmental decision-making. A subsequent concern is to uncover the influence of democratization on the form and workings of civil society in governance.

More significantly, it looks at the pathways of civil society groups and how their actors frame the nature of policy discourse and processes. Emphasis will be given on the drivers responsible for a policy shift to decentralized decision-making, processes behind such shifts, disputes and cooperation, and outcomes of failures and successes. The approach is historical and periodical as it takes the reader on a journey of institutional change. This approach, however, does not intend to delineate the intricacies of Philippine environmental history along neat historical lines. There are overlaps in each period and at times global discourse does not match with Philippine experience. Yet, on the one hand the approach is used as a brave attempt to compress and simplify what is otherwise characterized as complex, vast and rich experience of resource management in the Philippines.

This approach is useful also in understanding environmental decision-making in the Philippines, which is based on particular administrations and on individual leadership and management styles. This approach mirrors the relationship between contextual variables, such as culture and political economy and how these create policies that are "path dependent" (North 1990). In this respect, the colonial "environmental" administrations of Spain and the United States have not only exerted considerable influence on Philippine policy on the environment. They were major shapers of the thinking among elites and designers of initial environmental laws.

Due focus is given to the green environment, particularly forests and coastal systems. On their fringes live the majority of resource users who are poor and depend so much on nature's bounty for survival. The forest ecosystem serves as a biodiversity sink. Mangroves provide a natural link to coastal lands. The natural diversity of both these ecosystems is necessary for sustained ecological growth and the survival of human livelihood (Bautista 1994; Magno 1994).

"Environmental management" is used in this paper to refer to a process of using a variety of tools in order to conserve natural resources in the course of pursuing human activities. Tools are strategies that are used to approach a particular environmental problem. They differ on the overall management approach, which is developed according to a preferred worldview of the role of decision units, the importance of the natural environment, and the objectives of environmental management.

Management tools oriented toward the *governmen*t are based on standards and enforcement and, therefore, are inclined toward a centralized/regulatory structure or top-bottom approach. *Market* based approaches are secured on incentives (such as tax incentives) and price systems (tradable permits). *Community-based* approaches are fastened on the role of local communities in decision-making and employ participatory tools and strategies that involve plenty of consultation with community members and stakeholders. These are also called bottom-top approaches.

In this research, "participation" and "empowerment" are used in the context of decentralization, which provides for some form of self-rule at the community level. Self-rule in this context may range from consultation of locals to an outright authorization to deliver a particular service or to make laws. "Community-based approaches" constitute a participatory mode of environmental

management. "Communal" or "collective" ownership, which are related concepts, assume that local rules of resource use (enforcement and monitoring) exist at the community level in an environment that is democratic and pluralistic. Hence, attempts at "participation" during the Marcos authoritarian administration is labeled carefully as "incorporation" and not as the former.

As used in this paper, "resource management" is narrowed down to the strategies and tools employed to manage and protect forest and coastal ecosystems. This and management tools together comprise what is termed as "environmental management activities." The term "environmental policy-(making)" is used interchangeably to mean "environmental decision-(making)".

Organization of the Study

The paper begins with an analysis of the situation of the environment sector. It looks at the management framework that has evolved from colonial beginnings. This part will show how the modern state paradigm shapes environmental management along regulatory lines. The paper then traces the development of environment policies in forestry, fishery and protected areas using command and control instruments of management. The reader is introduced to two decades of institutional changes on the environment sector driven by an authoritarian rule and, inevitably, a centralized environmental management structure. This part reveals brewing civil unrest and acceleration of forest denudation and biodiversity loss attributed to *kaingin* farming in the uplands and to systematic timber extraction based on Timber License Agreements. It examines how this led to incipient and experimental shifts to "humane" forms of resource management. A discussion of democratization and environmental governance then follows.

The paper analyzes the impact of global democratization movements and changing discourse on domestic collective action and consequently on environmental governance. The reader is introduced to policy shifts, particularly community forest management and coastal resource management and to incremental changes in biodiversity protection. Environmental activism and its contribution to policy making are also discussed. A sub-portion deals with initial gains and problems of participatory environmental management. Trends in environmental governance in the 1990s are then discussed. There is an extensive discussion of major policy outcomes of the period, dynamics between local governments, NGOs and local communities as well as the problems of coordinating with national government agencies under decentralization.

The final portion deals with the challenges of 21st century environmental governance and government's current policy response. It examines official statements on the environment by the state in its Medium Term Philippine Development Plan 1999-2004, the State of the Nation Address and Agenda 21. This part looks at policy gaps around important environmental legislation such as the 1998 Fisheries Code. Finally, a reform agenda underscores general and corollary policy recommendations.

II. THEORETICAL FRAMEWORK: STATE-SOCIETY DYNAMICS IN ENVIRONMENTAL GOVERNANCE

Governing the natural environment entails "the establishment and operation of social institutions, set of roles, rules, decision-making procedures, and programs that serve to define social practices and to guide the interactions of those participation in these practices" (North 1990 in Young 1996). The focus is on the rules or institutions that are evolved by multiple actors or stakeholders other than the state. Hence, this environmental framework acknowledges the role of micro-level institutions in rule making and appreciates the value of collective action and local knowledge. There is a need to modify existing theories on governance such as Migdal's (1988) social analysis of the state. His is a state situated in an "environment of conflict" where the state competes with other social organizations for legitimacy, human resource mobilization, and extraction. The weak state is based on a notion that the balance of power in society is superceded by other social groups. The weak state is unable to fulfill requisite functions of "extraction", "legitimacy", and "participation" and to solidify "social control" of its constituency.

Substantial literature reinforces this thinking as in Young's (1996) notion of "governance without governments". Inclusive in this framework is the literature on local institutions for resource management, which underscores the greater policy relevance of *communal property arrangements* versus centralized and private property arrangements (McCay et al 1995; Ostrom 1990).

As a weak state, the failure of the Philippines to implement environmental policies is owed to the fact that policy implementors on the ground re-interpret policies around personal stakes in the field (Van de Top 1998). While this is acknowledged to a large extent in this research, the framework on environmental governance presupposes the indispensable role of the state in carrying out the task of managing and governing the natural environment (Polanyi 1944 in Swaney 1992; DFID 2000).

The role of the state is viewed as "critical" as opposed to "central" as in Bautista's (1994) where a framework that links the state with ecology and the economy is designed to "define the environmental problem" in the Philippines. The state provides a legal framework for a centralized, market- based and participatory mode of governance. Its role remains indispensable in establishing structures that are necessary to define terms of access (DFID 2000; Bautista 1994), the nature of resource extraction, valuation and "environmental restoration" (Bautista 1994). The state's authority on the biophysical world extends in the realm of setting property rights and in the delineation of the terms of access. It defines fiscal policies as well as policies that spell out the conservation or preservation of nature (Bautista 1994). It establishes the framework under which resource extraction and utilization takes place, including the making of policies that value natural resources either through incentives or taxes (Polanyi 1944 in Swaney 1992).

Alternatively, environment scholars conceptualize an ideal situation describing the relationship between state and local community-based on "co-management" (Courtney and White 2000; Sen and Nielsen 1996). The formation of the co-management model is based on principles of equal engagement between local governments and communities. Power-sharing largely depends on the nature of institutions formed at the local level, the extent of community participation, the nature of responsibility devolved on communities and the amount of authority still vested on the government (Pomeroy 1995). As a rule, the more powers, authorities and responsibilities are vested on local communities, the stronger the society is and the greater the responsibility is devolved from the state. Ironically, greater participation of the locals entails greater empowerment from the government since it is still the source of devolved powers and appropriated resources. The state through its instrumentalities at the local level is also vested with the power to appoint members of local resource management councils.

The embodied state in Bautista's (1994) framework has a distinct "worldview" around which values that govern resource use are built. This worldview determines the strength of the state and re-orients policy choices particularly those that guide "terms of access", "level of technology of extraction" and resource valuation. Historically, the Philippine state has adopted a worldview that

envisions man as a dominant player in the environment field. Man is insatiable and is motivated by a rational inclination to consume and develop. This state's view of man shapes its view of nature accordingly. Instead of an integrated view of ecology where nature is linked with culture, politics and economics, a view that functionally separates ecology from society is assumed. The "habitat" is reduced to one kind of functionality – its extractive use. In other words, the valuation of resources is solely based on the capacity of nature to be sold in the market as products of utility. Neglecting the less than quantifiable value of environmental services that nature produces (e.g., pollution), the state becomes inclined to extract resources because such a process yields the most optimum and utilitarian results.

Society drives the state to transform itself into either a weak or participatory structure. Forces can be global such as the wave of democratization that has cast changes on the entire communist world in the late 1980s or the Rio Summit in 1992, which re-conceptualized the nation-state's definition of development. On the one hand, changes can be domestically driven by the state itself. An example is the current mold of environmental policy in the Philippines, described as "one of the most progressive in the world" (FAO 1993). This policy is "nested" in the institutional changes brought about by a once repressive and a continuously weak state and restive political system. In this context, the state can be instrumental in opening up "opportunities" that might goad civil society into action (McAdam et al 1996; Tarrow 1994). Repression thus creates "opportunities" for elites to mobilize action from below. As in the Philippines, the "mantle of environmental protection" is used and has evolved to neutralize the more divisive demands for debt reduction and human rights protection (Magno 2001). In other parts of the country, the relationship between the formation of "social capital" and repression has been established empirically from among the *Kalinga* and *Bontoc* tribes and from among the *Kalaguya* tribe in Caraballo Sur where they have organized around issues of land and tenure amidst displacement by the Marcos government (Magno 2001, 1993). In effect, "environmental activism" emerges as a by-product of incremental political and economic changes that accompany the development of the state itself. Using the Philippine scenario, today's demands for well-protected forests and clean coastal waters germinated from earlier cries for freedom from oppression and patronage politics.

The dynamics between the state and society in forming an appropriate environmental response is recursive and in Hirsch (1997), a "reflexive" one. As in most of the Third World, environmentalism in the Philippines has evolved into a "legitimizing discourse of the opposition". Assuming the form of a collective "struggle" (Hirsch and Warren 1998) or "resistance" (Redclift 1996; Vivian and Dhai 1996), civil society shapes the pathways of government's policies on the environment from a colonial prototype to one that is progressively responsive to a call to environmental preservation for livelihood and cultural development (Hirsch and Warren 1998; Redclift 1996).

In the international political system, a "third wave" (Korten 1990) alters the world's view of development. The emerging discourse brought about by this wave modifies the lenses by which the international community views the role of the state, the paradigm of development and development intervention itself. In particular, a developing discourse based on *decentralization*, *empowerment* and *sustainable development* (WCED 1987) has transformed domestic civil action and policy processes worldwide. International civil society operations are now capable of linking global inputs and demands into domestic policy making processes that local non-government groups can assimilate into their activities of advocacy, education and organizing. This is governance that envisions a policy arena of variable actors knitting the state with local communities and civil society with international civil society networks and policy regimes (Sikkink and Keck 1998; Young 1996).

III. HISTORICAL PRECEDENTS IN THE MANAGEMENT OF NATURE IN THE PHILIPPINES

Today's form of environmental governance may be examined along several fronts. The areas for examination include: (1) the role of the national government in policy-making, its worldview and preferences; (2) corresponding management approaches, tools and strategies employed to carry out policy objectives; (3) civil society formations as a response or driver to environmental decisions; and, (4) external forces and evolving discourse.

The Department of Environment and Natural Resources (DENR), policy-making arm of the national government in forestry and wildlife management, remains a crucial player. The DENR shares with the Department of Agriculture (DA), through the Bureau of Fisheries and Aquatic Resources (BFAR), the function of managing fishery and coastal resources. The DENR through the Parks and Wildlife Bureau (PAWB) is in charge with managing protected area sites in the Philippines. Since the 1980s, central government agencies have opened up the domain of policy implementation to non-government organizations that have taken the responsibility of designing and implementing the national government's socially oriented forestry and coastal resource management projects.

The centralized and regulations-based approach to forestry and fisheries management that became a dominant characteristic of Philippine environmental decision making was rooted on a rational view of the modern state and of political power which attached importance to centralization, territorialization and specialization of power (Bryant 1998). Guided by the imperative of state-building, the two colonial powers formalized administration along this framework and effected a bureaucracy that was to evolve an "environmental" policy based on functional lines (Parnwell and Bryant 1996). Strictly speaking, there was no environmental governance or "management" structure to speak of as forest and fisheries exploitation were the foremost "environmental" objectives of the state. Based on the Regalian Doctrine, the primary stakeholder of the natural resource base was the state to the exclusion of others without access. As a colonial policy, the object of forest regulation was to arrest wanton forestry use by upland peoples who swidden-farmed as a means of livelihood. The Definitive Forest Laws and Regulations in 1889 was an essential aspect of an exclusionary framework of forest "governance" that saw the state and its elites as the essential source of power, knowledge and resource access (Magno 2001). The objective of "forest governance" under Spain was fundamentally adjunct to the bigger goal of state consolidation, which required the reduction of the physical scope of conquest. The control of land and all (forest) resources attached to it was enunciated by a Regalian Doctrine, a principle that was used primarily to strengthen the administrative and colonial base of the foreign state. The state's *environmental credibility* hinged on its capacity to control, consolidate and transform the land resource for commercial use. The importance of forests was later translated into the state's timber export policy that defined the colony's path toward late industrialization.

As an earlier basis for environmental decision-making, the 1889 law and a subsequent derivative, the Kaingin Law of 1901 are by today's standards considered as "environmentally regressive policies" (Hirsch and Warren 1998) having caused displacement of natural dwellers such as natives of Bukidnon in Mindanao and of Palawan (Magno 2001). The Forest Act of 1907 rationalized the exploitation of forest resources and provided the kind of regulatory framework for forest management in the country until the 1970s (FAO 1993). Reforestation, based on a strategy of tree planting, was carried out since 1916 and was assumed to be an effective policy to mitigate the hazards of forest conversion by *kaingin* (Magno 1994). It was not until the 1980s that the government conceived of a reforestation policy that transformed tree planting into a financially rewarding activity for forest dwellers (FAO 1993).

In the fisheries management sector, the Regalian Doctrine became the legal basis for the Administrative Code of 1917 which vested on municipal governments the power to issue fishing privileges, "right to conduct a fish breeding ground in municipal waters for profit" – a right that was assigned to the highest bidder (Batongbacal 2001). The management of fishery resources was highly regulatory and characteristic of the centralized approach applied in the forestry sector (Magno 2001). Generally, the management of fish resources was anchored on the employment of

prohibitions, licenses, setting fees and granting concessions. The Fisheries Act of 1932 vested on municipal governments the right to grant sponge fisheries through concession; to lease inland fisheries; to authorize the erection of corals; and to provide for the taking or catching of *bangus* fry. Fishing activity was governed by the principle of open access while the law did not contain provisions regulating this arrangement. However, with the establishment of closed seasons, a preferred management strategy was allowed by law (Batongbacal 2001; Francisco 1997). The law provided that the Secretary of Agriculture and Natural Resources "may establish closed seasons for not more than five years" (Francisco May 1997). The law also legitimized the establishment of "reserve fisheries" and penalized the use of explosives and other noxious substances and punished the illegal taking of mollusks and sponges. Consistent with the state's preference for profit, productivity and utility from resource extraction, the less than profitable small scale and subsistence fishing in municipal waters were left to local control (Batongbacal 2001).

The concept of biodiversity protection came by way of a 1916 Protection of Game and Fish Act, which was later superceded by Republic Act 3915 passed in 1932. This law provided that certain areas in the Philippines that were important by virtue of their "panoramic, historical, scientific or aesthetic value" should be reserved or freed from settlement and occupancy. Through this law, Mt. Makiling was declared the country's first national park in 1933 (Simpson and Bugna 2001). Biodiversity protection was defined by a limited notion of game and parks protection. However, the law was seen as having set the precedent for national parks management, game refuge and sanctuary development as primary strategies of biodiversity protection as well as having provided the predecessor of the current Protected Areas Management Board (PAMB) which was a multi-member body (Bonpin 2000). The harvesting and hunting of protected wildlife and settlement of protected parks were penalized although fines had a limited enforcement impact (Bugna 2001).

IV. Post-Colonial Environmental Policy Making (1950s to the 1960s)

The drive toward political independence and the subsequent desire to build the nation through industrialization in the modern world installed an environmental management framework that was primarily rational and utilitarian. The "modernization" discourse, which dwelled on the strong state's functional and structural capacities to reach political-economic goals, dominated the development agenda of emerging states in this period. Later, in the 1960s the evolving concept of "political culture" (Almond and Verba 1966) raised the importance of political participation on effective government.

In the Philippines, policies produced during the period before Martial Law reflected the state's legacy of centralization and its paramount option to manage natural resources by regulation, prohibition and concession. Pockets of "innovation" from the centralized approach during this period generally included an early attempt at decentralization. In the field of the environment, this included the exploration of a "localized" way to address *kaingin* and its impact on forest loss. In the fisheries sector, the state experimented to decentralized resource management by using an area based approach in 1966. A trend however was yet to be established given the competing force of a centralized framework.

In effect, the beginnings of independent environmental management and policy making in the country were characterized by ambivalence in thrusts. This created four streams of policy instruments: (1) regulation, (2) reforestation by the state (an American legacy carried out until after Martial Law was lifted), (3) "social" forestry, the beginnings of which were witnessed in the 1960s, and (4) integrated area development in the fisheries sector with the creation of a Laguna Lake Development Authority (RA 4850) in 1966 (see Table 2-1).

In the forestry sector, institutional change was marked by an initial questioning of the causes of forest destruction, of the right approach to address *kaingin* and correspondingly, the continued capacity of the state to arrest environmental loss. The nature of environmental policies, thus resonated the objectives of the state to curb forest destruction but at the same time assessed the previous approach of aborting swidden farming activities and streamlined logging by timber concessionaire groups with a Selective Logging System in 1957 (Van Den Top 1998; Moonen

1998). Still predominantly partial to logging companies, decision-makers in government were convinced that logging "only degrade(d) the forests into a logged-over forests" and did not cause the area to be totally cleared as did shifting agriculture (Moonen 1998). In the area of protected areas management, the 1950s resulted in changing lines of organization for protected area management. In 1952, the Parks and Wildlife Office was transferred from the Office of the President to the Department of Agriculture and Natural Resources (Simpson and Bugna 2001).

Political ambivalence worked in favor of the emerging state because it allowed for scientific experimentation for an appropriate resource use policy to evolve in a context of industrialization and national consolidation. The benefit to policy arose when the state accommodated a multi-sectoral *Kaingin Council Meeting* in 1964 in order to develop a "social" framework to understand forest conversion (Magno 2001). However, ambivalence had its cost on policy design and enforcement. For instance, the integrated area approach to manage Laguna Lake was designed behind a centralized government structure. Fisheries management straddled through simultaneously differing policy streams of delegated responsibilities over municipal fisheries (to grant privileges to erect fish corals, operate fish pond or oyster and culture beds in municipal fisheries, to issue licenses for small vessels), and a program of area-based decentralization along with continued exercise of broad powers to manage fisheries by the Department Secretary. On the one hand, collective forestry was implemented together with a poorly enforced selective logging policy (Van Den Top 1998), which stood alongside a corporate timber extraction arrangement, formalized in the 1960s and strengthened in the 1970s.

Table 2-1: Environment Policy Developments during the Post-Colonial Period: 1950s and 1960s.

Year	Policy	Descriptive provision
1957	Selective Logging System (Van Den Top 1998)	Guiding principle in logging to ensure sustained yield which included setting of diameter limits, requirements for tree-marking, annual allowable cut requirements, and rotational cutting cycles (FAO 1993)
1960	Timber Licensing Agreements (Van Den Top 1998)	Allowed timber companies to enter into an agreement with the state for the purpose of cutting trees in primary forest lands
1960	(RA 4850) Laguna Lake Development Authority (Batongbacal 2001)	An innovation in this decade of centralized resource management system
1964	Kaingin Council Meetings (Magno 2001)	A multi-sectoral group of civil groups and academics formed to develop a social framework for forest regulation
1965	State-based reforestation activities (Magno 1994)	Carried out since 1916 under the American; pursued until the beginning of the Aquino administration

Source: F. Magno, "Forest devolution and social capital," in *Environmental History*, vol. 6(2): 264-287, April 2001.

V. Environmental Policy under Two Decades of Martial Law (1970s and early 1980s) – Precursor to Change and Democracy in Governance

The mistakes committed by the Marcos administration as well as the opportunities it created both for civic action and beginning bottom-top resource management, formed significant spin offs that left an imprint on future environmental policies. The products of environmental management/ protection activities during this period have been assessed variably. Shaped by various drivers, environmental policy underwent a three-staged transformation: (1) toward regulation and centralization, (2) toward some form of "incorporation", and (3) toward participation. Rapid degradation of the forests, unregulated commercial fishing, export oriented industrialization and de-concentration were major drivers to the institutional changes in the environmental field. Persistently guided by a set of preferences that were skewed in favor of commercial, extractive and surplus values of the natural resource base as opposed to its carrying capacity, the state under Marcos pursued environmental policies that mirrored and propagated a worldview that supported his administration's modernization goals.

Regulatory Approach to Resource Management

The 1975 Forestry Code (PD 705) and the Fisheries Act of 1975 (PD 704) were the centerpieces of forest and fisheries regulation. These laws promoted the productive value of natural resources and sought their regulation by leases, licenses, permits and concessions.

The Forestry Reform Code vested on the President the authority to dispense timber license agreements. Although the law provided for a "rationalization of the wood or forest products industry" the law extended special protection for timber extraction and granted the industry with incentives and concession privileges that could last fifty years. Lease of forestland was extended to industrial tree plantations, tree farms and agro-forestry. The law provided for reforestation by timber companies, which was required for every tree cut. This policy provision imposing the responsibility to reforest on timber companies was considered a foremost state endeavor, which it attempted to sustain in 1979 with PD 1159 (Magno 1994). A policy of "optimum sustained yield", "annual allowable cut" and "wholesome ecological balance" were a few of the basic principles governing the state's forestry policy (see PD 705).

In fisheries management, the 1970s were crucial because the government recognized the importance of the coastal zone in economic development. It eventually required the delineation of the country's marine boundaries. It was in the late 1970s that the Philippines engaged in an international debate to define the country's Exclusive Economic Zone (EEZ). During this period, the administration shifted to greater centralization, which required a reduction of provincial powers over fishery resources (Batongbacal 2001). PD 704 (1974) was the centerpiece of fisheries management in the 1970s, superceding Republic Act 4003 of 1932. Through PD 704, the government expressed its goal to develop the fishery industry as a preferred domestic investment and export sector. Policy development evidently moved toward export development with the passage of an Integrated Fishery Development Plan in 1976. Subsequently, a Philippine Fish Marketing Authority (PD 977) was established to produce a more efficient distribution and marketing system for the industry. *Biyayang Dagat*, a credit program that later failed, initially sought to increase fish yield for fishers and to enhance productivity of the industry (Courtney and White 2001).

The law designated the area 7 kilometers from the shoreline as municipal waters and authorized commercial fishing to take place in the waters beyond this limit (Sec. 17, PD 704). Like its predecessor, PD 704 maintained an open access fishing regime while establishing control through marine protected areas, of which the power to establish was vested on the executive branch of government. According to the law, the Agriculture Secretary upon BFAR's recommendation could establish marine reserves and sanctuaries. In the 1970s there were about 17 marine protected areas in the country, indicated by the organization of the Laguna de Bai Fish Sanctuary in 1973 (FAO 110) and the Taal Lake Fish Sanctuary in 1975 (FAO 118). The regulatory trend of sanctuary creation persisted until shortly before the end of autocratic rule. In 1980, the Sumilon Island Fish

Sanctuary was created; in 1986, the Manila Bay, Lake Buhi and Lake Bato Fish Sanctuaries were similarly established (Francisco 1997). Meanwhile, the utilization of the closed season as a management tool was "defined but not expressly provided" by the law (Francisco 1997).

As in the 1960s, the promotion of biodiversity protection objectives was in the sidelines of the government's environmental management framework. In 1970, Proclamation 753 provided for the declaration of "watersheds, lakes and inland waters within watershed reservations" as game refuge and sanctuaries. Illegal use of these areas was punished by PD 705, the same law that governed forest management in the country (Bonpin 2000). While Republic Act 6148 proclaimed Mts. Iglit-Baco as a National Park in 1970 (Simpson and Bugna 2001), the Parks and Wildlife Office in the Department of Agriculture and Natural Resources (DANR) was merged under the Bureau of Forest Development (BFD) in 1972 (Simpson and Bugna 2001). This event was significant in shaping the policy subordination of biodiversity protection to timber extraction, which was controlled by the BFD in this period. Succeeding protected area management activities fell short of considering the role of indigenous inhabitants. This absence was reflected in an incident when Fisheries Administrative Order No. 11 (1973) disregarded the traditional gill net fishing practices of the indigenous peoples of Malampaya, the Cuyunons and the Tagbanuas. This regulation sought the closure of the body of water from all kinds of fishing in 1973 (Guieb 1999).

Collective Forms of Resource Management

In the same decade, however, the national government's views toward the natural inhabitants of the uplands were slowly being altered. The evolution of environmental policies during this long period of autocratic governing ironically laid down the foundation for the creation of decentralized instruments for the protection and management of the environment. While the predominant mode of governing was still based on the central state organization, the pathways for decentralization were slowly being built by regional decentralization in the early part of the seventies.

Emerging collective forms of management activities during these two decades were precursors of the more innovative, participatory and inclusive forms of resource management strategies in the subsequent decades.

In the forestry sector, these developments founded the basis for tenure-based and community-based forest resource management programs of the 1990s. As an environmental protection strategy, these policy developments intended to respond to events of:

- uncontrolled shifting cultivation from carabao-logging and shifting agriculture in logged over areas – activities perceived by officials to have occurred in the uplands independently of timber logging activities (Van Den Top, 1998);
- migration in the uplands as a result of cash crop agriculture in the lowlands (Moonen 1998); and,
- emerging resistance formations in restive parts of the country.

In the 1970s, policy trends for collective forestry shared the following features: (1) incorporation of actors other than the state in resource management and in the eighties marked by, (2) their incorporation in the implementation of a state formulated (forest) management plan, and (3) their participation in reforestation as "paid laborers".

Incipient collective forestry incorporated *kaingeros* into the state's resource management program. The strategy was to "manage" shifting cultivation based on resettlement (through the Forestry Reform Code 1974) and reforestation and a cessation of forest clearing (through PD 705, Forest Occupancy Management 1975) in accordance with a management plan designed by the Bureau of Forestry and later on by the Forest Management Bureau. A strategy incorporating families was promoted by two major pieces of legislation – the Family Approach to Reforestation in 1978 and the Communal Tree Farming in 1979 – and were based on the practice of tree plantations, remuneration of labor and agricultural crop inter-planting (Bagadion, Jr. 2000).

Integrated Social Forestry (ISF) in 1982 was marked as a foremost policy shift to a tenure-based approach to forest management. Its core components included a tenure instrument, the renewable Certificate of Stewardship Contract; involvement of individuals, families and communities; and the provision of livelihood and support services such as credit, community organization and training (Bagadion, Jr. 2000).

These became the forerunning features of succeeding social forestry projects of the government such as the World Bank-funded Central Visayas Regional Project 1 (CVRP) implemented in 1984. Consistent with the idea of reforestation with some form of "participation" and environmental protection as rural development, CVRP1 promoted the use of timber stand improvement as a focal strategy (Javier 1987).

In the fisheries sector, emerging incorporative resource management began in the early 1970s. This was mainly a reaction to a limited state interest to prioritize this sector. It also grew from a desire to deal with marine degradation, and in the 1980s, to respond to external financial assistance such as the World Bank's and to private initiatives to address coastal problems.

In 1974 and 1979, an "island-based" community-based coastal resource management was initiated by the non-government Silliman University in Dumaguete. This was an important contribution to future arrangements based on "shared governance" having been initiated primarily by an academic institution (White and Vogt 2000). The Apo and Silliman experiences provided a laboratory for designing policy for averting coral reef degradation (brought about by spear fishing, explosives and fine mesh nets) that was more "participatory" in approach. The university-initiated project was later incorporated into the Silliman University Marine Conservation and Development Program (MCDP) in 1984. Specific contributions included sanctuary development, protected area management and local rule making by management committee.

Efforts of the government in its CVRP-1 in reforestation were complemented by the Nearshore Fisheries Development (NFD) component of the Central Visayas Regional Project 1 in 1984. Designed as an integrated rural development project with a community-based approach to coastal resource management, NFD employed four interventions: mangrove reforestation, coral reef management, sanctuary development, and artificial reef installation.

Civil Society Front

The state's policy ramification to incorporative resource management and refinement of policy objectives to include environmental preservation was a product of certain essential drivers that were characteristic of the pre-democratic era.

Foremost of these were emerging pockets of resistance and mobilization from the civil front. Local mobilization assumed various forms ranging from advocacy, to bird and *tamaraw* preservation, which Haribon took up in 1978 to collective action forms. Local environmental resistance movements were framed as struggles for land against vested interests and a monolithic government. For the *Ikalans* and the *Kalanguya* peoples, the forest was the site of their ancestral heritage and necessitated protection. Collective action was formed around a claim to ancestral land rights, which the group secured through local rule-making institutions and organized community action. Indigenous residents of Kalinga-Apayao articulated a claim built around protests against dam construction, which they associated with corruption, forest denudation and livelihood displacement (Magno 2000). In Negros, seeds of environmental unrest were rooted on agrarian problems brought about by lowland displacement and upland resistance to the exclusionary impact of modern cash crop agriculture (Yap 1998).

Generally, advocacy work and mobilization of fishers communities as struggles against Marcos rule were entry points in NGO development work in the fisheries sector during this period. Their expansion in the 1980s was a response to fisheries depletion as well as the rise of

livelihood concerns. NGOs were provoked by the state's complacency and delegation of coastal concerns under those of the agriculture sector (Ferrer and Nozawa 1997).

Beginning the work in the early 1980s, the Community Empowerment for Research and Development (CERD) was noted for its pioneering development work in coastal communities (Oxfam-Britain 1999). Considering that the fisheries sector was jealously subordinated to land-based development interests of the government, CERD's early work of community organizing, education, participatory research and livelihood development could have planted seeds of early integrated CRM. Tambuyog Development Center's Sustainable Coastal Area Development (SCAD), was developed in Pangasinan in 1984. At this early stage, Tambuyog employed social analysis into the more traditional technical analysis of fishery resources. Participatory research was used in order to confront ecological issues of fishery resource degradation and biodiversity loss, together with economic issues behind the dependence of fishers on traders, resource use conflict among stakeholders, and poverty in coastal areas (Guieb 1999).

The second of these drivers stems from an advancing role of external intervention and development assistance in the experience of the Philippine nation-state. Marked by a paradigm based on the unitary role of the state in the development process and a technical approach to the underdevelopment problem, development packages in the 1970s were of the "integrated development" type formed by state experts which designed, implemented, managed and monitored technologies such as the Green Revolution for agriculture (Ferrer and Nozawa 1997) or the Blue Revolution for fisheries (Guieb-Rivera 1999). External assistance in the 1970s until about the early 1980s was packaged as a solution to the modernizing state's weak functional and structural capacities for service delivery. As intermediaries to development aid, NGOs promoted the "community development" approach to lessen dependence from the central government by building local self-reliance among "villagers" (Korten 1990). Prevailing modes of assistance were exemplified by the creation of committees and local councils and by the introduction of resource management technologies. These were featured in the earlier versions of community-based coastal resource management projects in Central Visayas.

Requirements of Governance: Implementation and Participation

The regulatory approach to managing natural resources depended on a strong enforcement capacity of the government. During this period, weakness of policy was mainly attributed to poor policy design, inadequate or lack of rule enforcement at national and local levels, and an inconsistent economic policy framework and rent seeking politics.

During this period, compliance to directives on selective logging and laws against illegal logging and fishing were generally challenged by the government's prevailing economic policy objectives and patronage politics. The system of Timber Licensing Agreements (TLAs) coincided most with the regime's export orientation and self-perpetuation goals. Earlier and recent works on Philippine forestry policies have already adjudged the vicious nature of these agreements, their impact on the environment as well as on the nature of the governing process itself. The 1960s and the 1970s catapulted timber as the country's priority export.

Timber accounted for 33 percent of national export totals, surpassing the record of other countries in the region (Porter and Ganapin 1988, in Van den Top 1998). Cash crops for export dominated lowland agriculture and rapidly expanded into the uplands (Yap 1998). The state's management objectives were further clouded by contradictory goals of timber concession and license systems. The low cost of forest concession licenses in the 1970s contradicted the government's decentralized reforestation strategy with timber companies. This was a factor that later contributed to failed reforestation efforts of the government (Magno 1994).

In particular, the enforcement mechanism imperative of a regulatory approach to forest management was debilitated by factors that included low state capacity and monitoring,

pervasive corporate timber extraction activities founded on the system of TLAs, and the political nature of the logging permit system (Van den Top 1998).

While power was concentrated on the executive, resources for enforcing and monitoring the government's reforestation in the field were scarce (Magno 1994). On the other hand, pressure abounded in the timber license permit distribution process at the field level (FAO 1993).

In the 1970s, incorporative resource management was an option the government took in order to experiment with other solutions to address resource degradation mainly by *kaingin*. The gains of earlier forms of incorporative forestry received variable assessments. On one occasion, government performance was characterized to have exhibited "limited devolution" of (resource management) powers (Magno 2001).

Early collective forestry was also deemed to be a "pioneering" effort of the government in "people-oriented forestry" (Agoncillo 1998; Puhlin 1998). It failed, however, due to the lack of an overall institutional frame to support a shift, and a limited worldview of local autonomy and the community's role in some form of shared management. *Kaingin* management in the early 1970s, for instance, was challenged by its poorly conceived management objectives, which were less than incorporative but more regulatory in intent. While Forestry Administrative Order No. 62 (1971) or the Kaingin Management and Land Settlements Regulations de-criminalized *kaingin* and *kaingeros* (they were reclassified as forest dwellers), the legislative intent of emerging regulations then was to "contain" *kaingeros* rather than incorporate them into their natural abode or into the decision-making process.

Subsequent "incorporative" resource management in the early 1980s on the other hand confronted the state's capacity to relax its centralized posture and pursue functional decentralization. It tested the state's early commitment to local development that was characteristic of the period. Generally, incorporative forms of protecting and managing the environment was less inclined to involve communities into some form of shared decision-making with government other than to provide labor or to attend meetings in exchange for free elementals. Communities were assumed to be weak and incapable of solving their own problems without expert help (Hirsch and Warren 1998; Redclift 1995; Korten 1990). For instance, communities under CVRP 1's Nearshore Fisheries Program were assessed for their token participation in the planning process and hasty community organization. Like the reforestation projects of the period, the Nearshore Fisheries Program was implemented primarily with a concern for meeting "quotas" rather than bringing about genuine community participation in carrying out the desired community-based planning process. The 1996 evaluation undertaken by Silliman University disclosed the weakness of the project to carry out the planning process. It yielded poorly selected sanctuaries and mangrove sites and poorly installed fish aggregating devices. Hastily organized fishers' associations and obvious lack of community derived rules of enforcement and monitoring in no-fishing sites mounted a great challenge to the sustainability of applied interventions particularly in situations where intrusions by commercial fishers were prevalent (Calumpong 1996).

There was also a question of weak local government units, which were unprepared to assume their responsibilities required by an Integrated Social Forestry program. In other cases, target communities did not involve themselves with agroforestry activities and when they did, failed to increase their incomes (Bagadion, Jr. 2000). The program failed to reach its targets so that ISFP became "virtually moribund in most provinces of the country" (Borlagdan 2000). In addition, the innovations attached to CVRP in the early 1980s such as sustainable forest product utilization technology brought with it more complex problems involving absentee claimants and inter-community rifts. These stood in the way of administering tenure instruments (Javier 1987).

Partial gains were recorded, on the other hand, from the Apo and Sumilon island-wide coastal resource management experiences. Collectively formed marine management committees engaged in sanctuary protection and management by "island resident committees" enforced municipal ordinances against reef destruction. Favorable outcomes were measured by the

development of diving tourism, multi-sectoral resource management practices along with fish productivity in sanctuary areas (White and Vogt 2000).

Table 2-2: Institutional Developments and Civil Society Formations in the Environment Sector in the 1970s and 1980s.

	Forest Management Legislation	**Fisheries Management**
1971	Kaingin Management and Land Resettlement Registration (Forestry Administrative Order no. 62) - relaxed prohibitions against slash and burn activities as along as upland occupants planted trees	
1972	Haribon Foundation founded as a bird watching groups	Fishing Industry Development (PD 704) centralized fisheries regulation based on permit system, price control, licenses, etc.
1974	Kalaguya people of Northern Philippines organized and secured ancestral land with management rights Forestry Reform Code 1974 - abolished short term permits and 10 to 25 year licenses - regulated pasture leases, mangrove conversion - included tenure-related provisions for upland dwellers	Silliman University community-based marine conservation project in Sumilon Island - sanctuary development
1975	Revised Forestry Reform Code PD 705 - multiple use of forests; forest and watershed rehabilitation, wood processing and gradual phasing out of log exportation - allowed slash and burn farmers to occupy the forests; forest protection in accordance with a management plan designed by the Bureau of Forestry Forest Occupancy Program - based on PD 705, prohibition of forest clearing; protection activities according to a management plan by the Forest Management Bureau	Fisheries Act

1976		Philippine Fish Marketing Authority (PD 707) -provided for efficient marketing and fish distribution; operation of fish markets and harbors Creation of the first Integrated Fish Development Plan Creation of the Fisheries Industries Development Council - to ensure effectivity of all fisheries policies and programs
1977		PD 941 Philippine Export Council
1978	Haribon Foundation launched project on the preservation of the Philippine Eagle and the tamaraw Family Approach to Reforestation - reforestation by families	
1979	Convention of First Philippine Environmental Congress; formulated a Declaration of Environmental Concern which promoted issues of equity and social justice Communal Tree Farming - short term contracts with families based on tree plantation strategy; paid family labor for each surviving seedling tree; inter-cropping land with agricultural crops Reforestation Law (PD 1159) - logging firms required to forest their concession areas with the same species cut or harvested	Silliman community-based marine conservation project in Apo Island - marine park management; establishment of protected areas; a buffer zone for elementary fishing; marine management committee at the barangay level Creation of Biyayang Dagat Credit Program
1981	Upland Development Working Group - formed as a multi-sectoral research group organized with funding from Ford Foundation and Bureau of Forest Development - looked into the value of tenure on sustainable forest resource use in the uplands	
1982	Integrated Social Forestry Program - consolidated Forest Occupancy, Family Approach to Reforestation and Communal Tree Farming programs - provided for a tenure based	

	instrument (Certificate for Community Stewardship) for a 25 year period Launching of a National Forestation Program	
1983		Natural and social scientists developed a Framework Plan for the Management and Development of Marine Communities which eventually led to the Lingayen Gulf Coastal Area Management in the latter 1980s (Ferrer 1992).
1984	Central Visayas Regional Projects 1 - in forestry included timber stand improvement (TSI) and reforestation	Central Visayas Regional Projects 1 a World Bank financed pilot project initiated by the Government in rural regional development based on decentralization; encompasses both fisheries and forestry sectors mobilized and applied barangay level participatory approaches in environmental rehabilitation; project included the establishment of artificial reefs, fish sanctuaries and mangrove reforestation (A. W. White 2000)

VI. Democratization and Environmental Governance (Late 1980s)

At the end of the 1980s, democratization placed the government at the juncture of policy shift options. This was significant to the environmental decision-making history of the Philippines. It broadened the political space that was to accommodate civil society groups into major phases of policy making. Domestic events such as the decline of the commercial logging industry, accelerated environmental degradation, upland migration and environmental activism shaped policy outcomes during this period. The World Conference on Environment and Development in 1987 provided the framework for the development of a discourse based on sustainable development. The Brundtland Commission's Report, *Our Common Future* (1987), prescribed a sustainable development strategy that would "meet the needs of the present without compromising the ability of future generations to meet their own needs" (Lele 1991). Sustainable development formed the heart of subsequent discussions that challenged the idealization of state power, the "blue print approach to development" and the notion of "community development". The principle underscored the value of knowledge and institutions that were "neither market nor state" in poverty alleviation and resource management (Ferrer 1992; Ostrom 1990). Analyses of the concept were diverse but eventually converged toward a "human needs" focus, "well-being" and "inclusion" (Redclift 1995; Lele 1991). Four critical policy and civil society developments would set the trends that would later impact on environmental governance in the 21st century:

- Recognition of the weakness of the top-bottom approach in environmental management which resulted in an institutionalization of community-based natural resource management policies in the forest and fisheries sectors;
- Adoption of participatory environmental protection methodologies and sustainable resource management technologies;
- Participation in the "world environmental movement" through the Global Environmental Facility;
- Civil engagement with national government policy formulation; and,
- Emergence of sustained environmental movement

The National Forestry Program (NFP) funded by the Asian Development Bank (1988) and Overseas Economic Cooperation Fund (OECF); Contract Reforestation as an implementing program of the NFP; the Community Forestry Program (CFP) (1989); and, the Lingayen Gulf Coastal Area Management program (1986-1992) of USAID and ASEAN set the precedents for the bottom-top approach to managing natural resources in the next decades.

In the forestry sector, primary gains included the development of an enhanced design for community-based forestry management that incorporated tenure rights, the objective of increased incomes and livelihood under a broad theme of rural development. Considered an important shift in policy framing, the adoption of these basic features was a recognition that environmental problems could not be abated independently of socio-economic factors (FAO 1993).

Contract Reforestation, a component of the National Forestry Program was defined by a contract to reforest denuded lands and non-reforested TLA areas. The contract was between the DENR and non-government entities such as communities, families, local government units and private corporations. The contract had a 3-year duration and provided for activities that included preparing the site, producing seedlings, establishing plantations, and maintaining and protecting the site (Magno1994).

The Community Forestry Program introduced the Community Forestry Management Agreement instrument that gave communities ownership rights based on upland rehabilitation and forest product utilization for a renewable period of 25 years. This program was intended to improve on the limitations of ISFP. Compared to it, CFP did not confine reforestation efforts to open lands and grasslands. The program did not provide solely for the occupation and rehabilitation of the forests but for a sustainable utilization of non-timber forest resources (FAO 1993). Management objectives were also directed at improving the well being of forest occupants (Bernasor 1999). Some 12,000 families from 55 upland and coastal communities participated in this project (Vitug 2000).

The Forest Land Management Agreement (FLMA) was another tenure instrument based on a 25-year old contract that provided for inter-cropping activities, harvesting rights and marketing of products (Magno 1994). Areas that completed the 3-year contract subject to 80 percent tree survival were turned over to contractors under the FLMA. Rights to forest product harvest were assigned to FLMA holders (FAO 1993).

The launch of the Lingayan Gulf Coastal Area Management was meant to respond to the growing poverty of fishers in places where threats to the coastal habitat were high. In 1986, CBCRM strategies that incorporated technologies of community organizing, education and training, and resource management were applied to Lingayen Gulf's two provinces and 20 municipalities as a first-ever initiative of the government at "integrated coastal management" (White and Deguit 2000).

In 1989, the Integrated Protected Areas (IPAS) was born out of a project grant to Haribon Foundation by the Debt-for-Nature Swap Program administered by the World Wildlife Fund (WWF). The IPAS laid down the springboard for further investigation of the project by two World Bank Missions from 1987 to 1992 (Ramos 1997) and a subsequent mission by the Japanese government in 1990. Both led to the identification and selection of ten priority

protected areas sites and the production of a draft legislation for protected areas management in the country. The rise of participatory resource management methods used by the government were accompanied by policy debates on the log ban at the legislative level of government while bureaucratic changes that sought to improve the regulatory framework were taking place at the core of the DENR organization.

Under Secretary Fulgencio Factoran, the DENR pushed for bureaucratic streamlining and forest resource valuation, and addressed the problem of TLAs and excessive logging (Vitug 2000). This leadership became known for its assertive engagement with civil society groups which were mainstreamed within the DENR bureaucracy by an NGO office and a Foundation for the Philippine Environment and the NGOs for Integrated Protected Areas set up to manage donor funds (Vitug 2000). Also inclusive of changes at the executive policy level were the adoption by the Aquino Cabinet of the "core strategies" that made up the framework for the Philippine Strategy of Sustainable Development in 1989; the creation of a Presidential Commission on Anti-illegal Fishing and Marine Conservation (or the Bantay-Dagat); and, the creation of a Protected Areas and Wildlife Bureau (PAWB) under the DENR.

In the international civil society front, NGOs underwent a serious transformation in their development aid perspective. Applying change in the resource management sector, NGO intervention evolved from the community development model of the 1970s and early 1980s into one based on "sustainable systems development" (Korten 1990). The influence of this transformation was significant particularly because it reframed the entire idea of participation and empowerment. Shaped by this discourse, NGOs adopted a distinct approach to community organizing, reviewed their role as "catalyst", altered the position of target beneficiaries from "laborers" to "participants" and elevated the importance of local expertise in resource management (Korten 1990).

In the Philippines, a part of the discourse revolved around the notion of "sustainable livelihoods" (Guieb 1999), "upland poverty alleviation", "social equity in resource distribution" and "food security" (Puhlin 1998). In the countryside, the incorporation of sustainable agricultural practices in resource management projects became the shroud for asserting a demand for freedom from capitalist exploitation. Goals of agrarian change and improved well-being of the poor communities were placed in the forefront partially obscuring the benefits of environmental protection brought about by sustainable resource use practices (Yap 1998).

Under a more democratic political system, the battlecry of the environmental movement revolved less around repression as demand for poverty alleviation through "resource control" and "democratization of access" gained ground (Guieb 1999). The twin concepts of empowerment and participation dominated the agenda for environmental change – voiced through claims for local participation in all phases of an externally assisted project cycle. Components included community organizing, education and training; integration of the environmental component in community-based development programs; and, coalition building for policy formulation (Magno 1999).

Environmental activism in the Philippines proceeded along a similar pattern of development. Civil groups moved on synergistic lines, providing support for local collective action or by direct and indirect engagement with the government.

As in other parts of the Third World, NGOs in the Philippines began to popularize the use of rapid rural appraisal, resource documentation process, community profiling, socio-economic development planning, and community-based resource management techniques as a prelude to installing environmental protection activities.

In recognizing "poor people first," NGOs in the forestry sector mediated in transforming the role of the upland poor to development partners and facilitated the application of technologies based on timber stand improvement (TSI), and assisted natural regeneration (ANR), agro-forestry and carabao logging (Pulhin 1999). In 1988, Oxfam-Britain formally established an

office in the Philippines and launched a gender component into its CBCRM program (Oxfam Britain 1999).

At one end, policy immersion with government became evident among NGO members, which formed Green Forum in 1989. Green Forum played a role in negotiations for the Philippine Assistance Program under the Aquino administration. Considered as the largest network of environmental NGOs and PO s in the country, Green Forum was notable for its collaboration with Haribon in lobbying for the passage of a total commercial log ban law (Malayang III 2000). These endeavors were reminiscent of the National Coalition for Fisheries and Aquatic Reform (NACFAR)'s advocacy and coalition-building to lobby Congress for passage of a new Fisheries Code (Quicho 1999). A 10-year lobbying struggle among NGOs heightened during this period and was later consummated as the Indigenous People's Rights Act.

Early Gains and Problems: Testing the Ground for a Developmental Approach to Resource Management

The period of democratization was a testing ground for evolving a more responsive and scientific environmental governance framework in an arena characterized by plurality and openness. The gains were generally defined by critical policy shifts such as a more assertive adoption of developmental approaches to resource management and of formations among civil society that impacted significantly on institutional change.

Specific gains obtained from the implementation of participatory approaches in the forestry sector were measured by the number of beneficiaries and by the size of public lands covered by reforestation. In 1988 to 1991, there were about 21,279 reforestation contracts awarded by Contract Reforestation projects. FAO (1993) noted that Contract Reforestation reforested about 400,000 ha. of formerly wasted, burned and logged-over lands. In terms of the number of households and sites covered, the Community Forestry Program resulted in an increase from 12,000 to 19,284 households and from 55 to 108 sites (Magno 1994). The potential of CFP pilot projects were also gauged by their capacity to increase incomes. Compared to slash and burn activities, incomes from non-timber forest product utilization became higher by 300 percent (FAO 1993).

CFP pilot projects also demonstrated the relevance of previously condemned carabao-logging techniques to achieve soil sustainability and preservation especially in logged over areas (FAO 1993). The weakness of Contract Reforestation was in certain policy constraints attached to overlapping tenure instruments, insecure short-term tenure arrangements and a lack of livelihood projects to support reforestation activities. Implementation was further confronted with irrational selection procedures that adversely influenced the selection of contractors in designated sites. There were specific problems raised against "fly-by-night NGOs" (Vitug 2000; Magno 1994), deliberate forest fires, inadequately prepared sites and "inappropriate reforestation species". Most of these problems were traced to the program's preoccupation with meeting targets and to a very disappointingly low DENR capacity (Bagadion Jr. 2000).

Reforestation covered by CFP and NFP fell short of targets in terms of survival rates and genuine community involvement (Vitug 2000). Targets fell short of the expectation 51-percent survival rate of reforested trees recorded for NFP (Vitug 2000). Desired community participation in reforestation was not elevated to an empowering level. In a case involving contour farming in communities in Negros, the high labor requirement made it an irrelevant agricultural technology for recovering trade-offs from costs incurred from a loss of livelihood. Instead, this new technology imposed a high cost on local participation and challenged grassroots mobilization in project sites (Yap 1998).

In the same period, the Lingayen Gulf Integrated Coastal Management program failed to bring about effective community-based management of coastal resources. White (2000) attributed low expectations to the failure of the fisheries data analyses to fulfill its objective of stopping over-fishing in the gulf (White and Deguit 2000).

In the area of biodiversity protection, the results of the World Bank's and DENR's "joint consultative appraisal" of the IPAS were ambivalent, given the mixed gains of IPAS implementation. The Bank observed that participation had not been put in place in the IPAS original design. Instead, it was "inserted" after getting "negative feedback" from target beneficiaries. The main point of contention was the lack of sufficient participation of stakeholders, particularly of indigenous cultural communities (ICCs), in the drawing up of the proposed NIPAS Act. More specifically, ICCs of Mindoro found IPAS maps highly contentious and presumptuous of their livelihood needs. A significant failure in participation was reported in Mindoro among the indigenous Mangyans, who suspected ICC representation in the PAMB, questioned eco-tourism and mining-related provisions, and eventually rejected the concept of parks management of the proposed IPAS law.

However, inserting participatory arrangements in the "follow-up meetings" gave other ICCs a voice to air out their concerns over livelihood and equity in PAMB representation. Ironically, the opt-out scheme chosen by the Mangyan ICC indicated the existence of a relatively "free" environment where stakeholders could choose to reject change without consent.

VII. Trends in Environmental Governance: 1990s and Beyond

Growing Civil Society Involvement

The past decade provided an experimental ground for appraising "environmental governance". The burden imposed by irreversible ecological loss, previously weak social forestry projects, a bureaucratically unprepared DENR and enlarged participatory approaches to forest, coastal and protected areas management challenged the national government to institutionalize reforms through long term planning and antipoverty programs.

The period was characterized by active civil society involvement, ripened by twin forces of democratization and devolution. For some, efforts were positively reviewed as "institution-building" (White 2000; Magno 1999) that collectively founded a phase defined by "continuity and institutionalization" (Agoncillo 1997; Magno 2001) of bottom-top environmental protection and management. The more cautious were inclined to make a more moderate assessment looking at endeavors as "disparate" or unsynchronized that required more creative networking processes and coalition formation from organized civil society groups (Malayang III 2000). Notwithstanding, community-based activities of the 1990s were significant in providing the present mold of environmental governance as well as unleashing opportunities for policy reforms.

To some extent, however, there was disparity in the localized innovations taking place in remote communities in Luzon, Visayas and Mindanao. A few of these endeavors came from smaller organized communities such as Taparak Tree Planters Association (Misamis Oriental), Magdungao Agroforestry Farmers Association (Iloilo), Mother's Club of barangay Barbar (Ilocos Sur), and Cebu Bishops-Businessmen's Conference (Cebu). Their activities ranged from reforestation, adoption and teaching of SALT technology, program evaluation, and watershed protection (Malayang III 2000).

The work of NGOs in community-based coastal management was compiled by Oxfam-Britain, a major partner in community development work in this sector (Oxfam-Britain 1999). There were a variety of participatory tools employed, ranging from an integration of paralegal training (ELAC), to gender sensitivity (CERD), to microfinance (Sikat), and to environmental education (Tambuyog) in resource management.

Participating NGOs became instrumental in widening and deepening the early gains of CRM in the previous decade by their projects in the communities of Camarines Sur, Iloilo, Batangas, Navotas, Alabat Island, Laguna and Honda Bay Puerto Princesa City (Oxfam-Britain 1999). NGOs also directly engaged in the stream of central policy making sometimes in coalition with other NGOs, inside or outside of the government. Together they constituted relatively big

undertakings in co-management with government in the field of resource and protected area management. Specific examples were the Multisectoral Forest Protection Committees (MFPC) established in the forestry sector; the lobbying/networking activities of the National Coalition for Fisheries for Aquatic Reform (NAFCAR) in the fishery sector; and, the organization of NGOs for Integrated Protected Areas (NIPA) for biodiversity protection.

Multisectoral Forest Protection Committees (MFPC) were formed by DENR together with NGOs for Integrated Protected Areas (NIPA) to carry out collaborative enforcement of forestry laws. Acting as a whip, MFPCs interdicted illegal log transports and monitored the activities of licensed users. MFPCs were also check-andbalance mechanisms of the DENR's power to approve and distribute logging licenses (Malayang 2000).

In the fishery sector, the 1990s gave birth to fisheries reform advocacy that eventually led to coalition formation and networking. Established were NGOs such as Batas Pantao, Inc, PhilDHRRA, Tambuyog Development Center, CERD, HAYUMA, OTRADEV, Haribon, SIKAT and PRRM. These constituted the Technical Working Group in 1994 that extended support to NAFCAR. This technical working group was thereafter consulted by the Tenth Congress in policy making process and contributed to the drafting of the "unity bill" on fisheries reform. An important output of these consultations were legislation that gave preferential treatment to municipal fisherfolk through resource access and user-led management of coastal resources (Quicho 1999).

In 1993, the NGOs for Integrated Protected Areas (NIPA) was organized as a consortium of NGOs committed to biodiversity protection. Recognized by the DENR as pioneering co-management in biodiversity protection in the Philippines, NIPA was responsible for implementing the protected areas component of DENR's Sector Adjustment Loan (SECAL). NIPA administered a grant fund of US$20 million from the Global Environmental Facility (GEF). NIPA's significant undertakings included its coordinating work with DENR in strengthening forestry law enforcement through a co-management arrangement. NIPA was primarily responsible for the implementation of the Conservation of Priority Protected Areas Project (CPPAP) in 1994. The latter was a foreign funded biodiversity protection project intended to test the provisions of the NIPAP law of 1992 (Malayang III 2000).

Political Climate: Institutional Framework for Environmental Governance

The government's posture toward progressive environmental management and protection during this period was both pragmatic and ideal: foremost in the agenda of the Fidel V. Ramos administration was to establish the country's international reputation as a "green tiger" (Ramos 1997), with an environmental responsibility and concern for the welfare of its poor. This strategy fell in consonance with the evolving discourse on poverty's inevitable relationship with environmental degradation and on a "false dichotomy" between development and environmental protection (WB 1992).

***Medium Term Development Plan 1993-1998*.** Under President Ramos, this undertaking was adopted through the 1993-1998 Medium Term Development Plan, Agenda 21, and the Social Reform Agenda of 1995. Through Executive Order 263 "Adopting Community-based Forest Management as the National Strategy to Ensure the Sustainable Development of the Country's Forestland," the Philippines pursued an official policy that integrated principles of sustainability into its economic development framework. In coastal management, the government espoused the widespread use of community-based approaches; resource valuation based on maximum sustainable yields; and the promotion of "territorial use" rights for small fishers. It supported income diversification for municipal fishers, aquaculture intensification, and "optimal utilization" of off- shore fishery resources.

Social Reform Agenda (1995). The Social Reform Agenda (SRA) was presented by the Ramos government as a consolidated work of several sectors including civil society to reduce or eliminate poverty in the country and provide a balance to the administration's core industrialization program, "Philippines 2000." A fundamental value of the SRA was integrated

national development biased in favor of society's marginal sectors, such as indigenous peoples, upland dwellers, farmers and fishers. This concern materialized in the form nine (9) flagship programs that included among others Agricultural Development for Farmers and Landless Rural Workers, Fisheries Management, and Development and Protection of Ancestral Domain for Indigenous Peoples. Enunciated as the Agenda's basic objectives were providing access to "sustainable livelihood" and basic services. These were coupled by the building of appropriate institutions in order to ensure participatory forms of governance.

Agenda 21 (1995). The Philippine's position in Agenda 21 echoed the dominant discourse at Rio in 1992. The fundamental objective was to change the course of the country's development direction toward broad-based development that would take into consideration the earth's carrying capacity, "environmental security" and a concern for local communities. A major task was to evolve a political governance that was transparent and accountable and an environmental management framework that heeded the value of community involvement in resource management and biodiversity protection (PCSD 1997). Agenda 21 was designed to enable different agencies in charge of protecting specific ecosystems to follow action targets enumerated in Table 2-3.

Four major pieces of legislation enacted during this period impacted on the framework of environmental protection and resource management in the 1990s. These were compatible with the rhetoric of the government during this period. These laws included the Local Government Code (RA 7160) of 1991, the Fisheries Code of 1998 (RA 8550), the National Integrated and Protected Areas System Act (RA 7586) of 1992, and the Indigenous People's Rights Act (IPRA) of 1997.

Table 2-3: Philippine Agenda 21 Objectives in Forests, Coastal, and Biodiversity Ecosystems

Forests Ecosystem	Coastal / Marine Ecosystem	Biodiversity Ecosystem
Enhance forest conservation through afforestation and rehabilitation - delineate forest boundaries - determine appropriate plantation technique	Passage of the Fisheries Code	Identify biodiversity rich areas not covered by the NIPAS Act
Expand implementation of peopleoriented forestry programs such as ISF, CBFM and CFP	Preparation of a comprehensive coastal zone management plan Identify priority sites for mangrove reforestation and seagrass rehabilitation	Undertake mapping and GIS of marine biodiversity rich areas
Institutionalize Multi-sectoral forest protection committees	Assess foreshore lease agreements	Document indigenous knowledge
Design an alternative management of expired TLA areas	Develop participatory anti-poaching plans	Formulate a National eco-tourism development plan
Correct resource valuation	Adopt an ecosystems approach to CRM	Identify protected areas for marine
Apply remote sensing to	R/D	Increase biodiversity

create a nationwide forest resources inventory		conservation awareness
Implement an integrated watershed management program	Modern Bantay Dagat program	Training for biodiversity protection involving locals and stakeholders
Create more Centers for People Empowerment in the Uplands	Penalize violators of marine and fishery laws	Promote international support for biodiversity protection
Develop EIA for logging and other forestry projects	Include adjacent watersheds in the marine resources delineation	Support and implement bioprospecting efforts
Study tenure arrangements	Review fisheries credit programs	Expand membership of IPs in PAMBs
Recognize ancestral domain claims	Develop mechanisms to ensure access to basic services	Educate IPs for environmental awareness

Source: Philippine Council for Sustainable Development, *Philippine Agenda 21: A National Agenda for Sustainable Development* (Manila: PCSC, 1997).

Environmental legislation during this period was a decisive force for shaping the direction of environmental governance based on a decentralized, participatory, conservationist and people-oriented framework for bringing the country into the 21st century. The Fisheries Code, the NIPAS Act and the IPRA contributed to macro-institutional changes that shaped trends in environmental governance characterized by (1) institutionalization of community-based resource management; (2) advancement of participatory methods and tools of environmental protection/resource management; and, (3) establishment of co-management arrangements that facilitate LGU-community and NGO collaboration.

VIII. ENVIRONMENTAL LEGISLATION

Local Government Code 1991: Decentralization of environmental protection

Decentralizing the state's environmental protection powers to local government units was a radical shift from a command and control posture to more accountable resource management structure. Environmental scholars and advocates see decentralization as a cost-effective measure to internalize enforcement and monitoring costs incurred by a state unfamiliar with local conditions (Ostrom 1990). In effect, this was a policy outcome based on the Philippine government's realization of its limited enforcement capacity to arrest resource depletion taking place rapidly in many parts of the country.

The 1991 Local Government Code devolved the functions of making and enforcing environmental protection laws to local government units. LGUs were vested with local jurisdictions over forestry and fishery laws. Local governments were authorized to penalize log smuggling and the illegal trade of endangered species and to impose fines on dynamite fishing, use of fine mesh nets, and *muro-ami*. They could group themselves and undertake joint ventures with other LGUs and NGOs in order to take advantage of economies of scale and improve service delivery.

Local government units were given the responsibility to protect, manage, maintain and rehabilitate small watershed areas, tree parks, greenbelts and other areas to be identified by the DENR. The authority to manage communal forests with areas not exceeding 5,000 ha., and community-based forestry projects including Integrated Social Forestry and contract reforestation areas was likewise decentralized. Municipal governments were given rule-making powers in defining and managing their municipal waters at 15 kilometers from the coastline. In municipal waters, the power of LGUs was held supreme and beyond the scope of the BFAR's jurisdiction. This power was extended to the grant of fishery privileges and of rentals, fees and charges. LGUs were empowered to grant priority fishery privileges, cooperative rights as well as preferential rights to marginal fishers' organizations for purposes of erecting corals and gathering fish fry in municipal waters free of charge or rent (Local Government Code 1991).

Decentralization paved the way for the institutionalization of community-based resource management and greater state-LGU collaboration as well as LGU-NGO-community collaboration. It formed the basis for an accelerated development of donor-assisted and government-supported projects in resource management. Decentralization instituted an overall framework for extending participatory methodologies in forest, fishery and biodiversity management and for incorporating changes of this nature in national legislative instruments, such as the Fisheries Code of 1998, IPRA in 1992, and the National Integrated Protected Areas System Act of 1992.

Fisheries Code (RA 8550) - Participatory Environmental Protection and Integrated Resource Management

The 1998 Fisheries Code, while far from the "unity bill" supported by NGOs and fisherfolk organizations in the early 1990s, set the stage for the adoption of more participatory policy reforms in coastal governance. Among others, the enactment of R.A. 8550 was intended to provide a legislative framework for integrating coastal resource management which PD 704 did not provide for. The new law sought to rectify the "imbalance" created by the state's preference for off-shore over coastal waters; to replace the prevailing open access regime in municipal waters with limited and preferential access; to make obligatory the establishment of management councils; and, to replace the sector's underlying objective of productivity with sustainability (Cruz-Trinidad 1998).

Table 2-4: Decentralized Environmental Protection Powers

Fisheries/ coastal management related provisions
- Enforcement of fishery laws in municipal waters including the conservation of mangroves (Sec. 17)
- Protect the environment and impose penalties on dynamite fishing (Sec. 446)
- The sanggunian can legislate ordinances that penalize the use of explosives, noxious substances, electricity, muro-ami and other harmful methods of fishing (Sec. 446)
- Grant exclusive privilege of constructing fish corals, fish pens or taking or catching of bangus fry within municipal waters (Sec.446)
- Exclusive power of municipalities to grant fishery privileges in municipal waters and impose rentals, fees or charges (Sec. 149)
- Grant fishery privileges to erect fish corrals, oyster, mussel or other aquatic beds or bangus fry areas within a definite zone of the municipal waters (Sec. 149,b,1)
- Grant the privilege to gather, take or catch bangus, fry, prawn fry and fish from the municipal waters by nets, traps or other fishing gears to marginal fishers free of rental, fee or charge (Sec. 149,b,2)
- Issue licenses for the operation of fishing vessels of 3 tons or less (Sec.149,3)
Forestry management related provisions
- Protect the environment and impose penalties on illegal logging, log smuggling, smuggling of natural resources products (Sec. 446. LGC 1991)
- Enact integrated zoning ordinances in accordance with approved land use plans
- Implement community-based forestry projects, which include integrated social forestry programs; management and control of communal forests with an area not exceeding 50 sq.km. ; establishment of tree parks, green belts and similar forest development projects (Sec. 17)
- Enforcement of forestry laws limited to community-based forestry (Sec. 17)
Biodiversity protection
- Protect the environment and impose penalties smuggling of endangered species of flora and fauna (Sec. 446. LGC 1991)

Passage of the Fisheries Code resulted in four gains for the sector. First, it opened windows of opportunity for involving small scale fishers and coastal dwellers in policy formulation. This was made available by the creation of resource management councils with recommendatory powers. The idea behind governance by council is reinforced by provisions on management councils, which possess some voice in ordinance formulation. Second, the Code contributed to institutional changes that directed coastal governance away from a production-orientation and moved it toward integrated management. Specific provisions on "maximum sustainable yield" underscore this ideal. This unified the objectives of both forest and coastal/fisheries sectors toward a community-based resource management framework. Third, the Code was a product of the Asian Development Bank's policy recommendations in 1991 of principally entrenching environmental protection objectives with goals of poverty alleviation and food security. Fourth, by introducing innovations that pertained to concepts of "rent" and "maximum sustainable yield" among others, the law underscores the commitment of the Philippine government to principles of sustainability agreed upon in 1987 during the World Conference on Environment and Development and in 1992 as presented through Agenda 21 by the Philippine government in 1995.

The features of the Fisheries Code that contribute today to fulfilling the gains mentioned above are as follows:

Promoting Goals of Sustainability. The concept of sustainability is embodied in the government's objectives of (i) conservation, (ii) protection, (iii) sustained management, (iv) development, and (v) protection of the country's fishery resources, which the Code enunciates in its declaration of policy. Following the principle of sustainable resource use of fishery resources, the Code incorporates the practice of "limited entry" into municipal waters upon a

delineation of municipal waters and conferment of preferential use rights to municipal fisherfolk. Under the Fisheries Code, a strategy of "sustained management" on a national level can be carried out through several methods. Following are specific provisions that seek to guarantee a more sustainable utilization of the country's fishery resources and are now embodied in the provisions on resource rent and "property rights" (Israel and Roque 1999).

- The Code states that "the preferential use of the municipal waters…shall be based on, but not limited to, Maximum Sustainable Yield (MSY) or Total Allowable Catch (TAC)"; the assignment of MSY and TAC is determined by the Department of Agriculture;
- Based on MSY and TAC, the DA has the power to determine the number of licenses and quota for commercial fishing according to specific gears and size of vessel;
- The Code establishes "catch ceiling limitations" to be determined by the DA;
- The Code stipulates that the declaration of closed seasons shall be determined by the DA upon BFAR's recommendation;
- The Code mandates that a resource inventory be undertaken for the conservation of rare, threatened or endangered species;
- The Code establishes limited entry to over-fished areas that have been duly determined by the DA, LGU and FARMC; and,
- The Code mandates the DA to install fishery refuges and sanctuaries on the recommendation of BFAR (NFR 1998).

The integrated approach to coastal management institutionalizes a "resource system"- or "ecosystem"- based coastal management. The Code provides that "the management of contiguous fishery resources such as bays which straddle several municipalities, cities, and provinces, shall be done in an integrated manner and not based on political subdivisions of municipal waters in order to facilitate their management as single resource systems" (Sec. 16). Integrated management lays down a starting point for establishing inter-local governmental structures such as a inter-municipal Fisheries Aquatic Resource Management Councils (FARMCs) in areas where bays, gulfs, lakes, rivers and dams are bounded by common municipal borders (Sec. 76).

***Promoting the User-manager Principle in Resource Use*.** The Code has provisions that favor small fisherfolk and marginal fisher organizations and provides for preferential rights grants from LGUs. The organization of Fisheries and Aquatic Resources Management Councils (FARMCs) is enshrined in the Code for this particular purpose and is originally based on the principle of user-manager. The new Code, however simplifies the functions of the FARMC as a recommendatory body tasked to assist the LGU in outlining a fishery development plan; recommend fishery related ordinances; assist in law enforcement; and, advise the *sanggunian* through a fisheries committee on matters related to fishery concerns. NGOs and municipal fishers are represented in the FARMC (NFR 1998).

Redirecting Coastal Governance toward Integrated Coastal Resource Management

An integrated approach to resource management views coastal problems nested into larger issues of poverty, power and wealth distribution. The approach is partial to the employment of participatory tools because of the value it places on communities, their position in decision-making for matters that directly affect their livelihood, and "politics of the place". The integrated approach to coastal management combines science with culture and politics; highlights the importance of multiple users of environmental resources; expands the meaning of the community; and, emphasizes the processes of monitoring and feedback (Ferrer and Nozawa 1997; Ramos 1997). A co-management decision structure between communities, LGUs, the national government, and NGOs is one typology of integrated coastal resource management.

***Limited Entry and Preferential Treatment to Marginal Fishers*.** The Code attempts to redefine a previously existing property rights system based on open access by introducing the concept of resource rent and maximum sustainable yield (MSY) in fisheries and coastal use. By enhancing the power of LGUs to delineate municipal waters at 15 km from the shoreline,

and by authorizing the same to grant marginal fishers with preferential use rights in municipal waters, the Code suggests a legal possibility for instituting a limited entry regime in municipal waters. Unless otherwise decided upon by the local chief executive, a certain portion of municipal waters may be closed to commercial fishing. Over-fished areas my be closed by either the DA or by the LGU. LGUs can also legislate the use of municipal waters so as to exclude active gear fishing.

Other provisions in the Code with a similar purpose include the provision on demarcated areas in municipal waters and the provision for a fisherfolk registry that municipal governments can use pursue the preferential use arrangement of municipal waters.

Table 2-5a: Comparing Certain Provisions of the Old and New Fisheries Code.

RA 8550 (1998)	PD 704 (1975)
- Food security, management, utilization, development conservation of fisheries protection - Management consistent with the concept of an integrated coastal area management	Acceleration and promotion of the integrated development of the fishery industry Optimum production through conservation Maximum economic utilization of fishery resources Fishery industry as preferred area of investment Promotion of exportation of fish and aquatic resources
- Limited access and exclusive use (for Filipinos)	
- Rational and sustainable development	
- Protection of the rights of the fisherfolks - Rights of local communities - Priority to municipal fisherfolk - Preferential use of the municipal waters based on MSY and TAC - MSY is the largest average quantity of fish that can be harvested from fish stocks/ resource within a reasonable period of time on a sustainable basis under existing environmental conditions (Sec. 53) - TAC is the maximum harvest allowed to be taken during a given period of time from any fishery area or from any fishery species or a combination of area and species and normally would not exceed the MXY (Sec. 72)	- Maximum economic utilization of fishery resources
- Private sector as active partner of government -	Private sector as active partner of government
- Objectives of the fishery sector (Sec. 2) - Conservation, protection and sustained management - Poverty alleviation - Optimal utilization of offshore and deep-sea resources; improvement of productivity of aquaculture	

Table 2-5b: Comparing Certain Provisions of the Old and New Fisheries Code.

MANAGEMENT OF FISHERIES AND AQUATIC RESOURCES	
RA 8550	**PD 704**
- Utilization, management, development, conservation and allocation system of fisheries	- Utilization and exploitation of fishery and aquatic resources
- Based on resource rent (Sec 6) Fishpond lease agreement (FLA) and license fees for commercial fishing boat licenses (CFBL) to reflect resource rent	
- Access is based on MSY of the resource (sec 7) - Catch ceiling limitations - Quota on total quantity of fish captured - Closed season - Limited entry into overfished (municipal) areas (Sec. 23) - LGUs in consultation with the FARMC may establish fishery refuge and sanctuaries (81) - Preference given to resource local users adjacent and nearest to the municipal waters (7)	- Restriction based on issuance of license, lease or permit; "no person shall exploit, occupy, produce, culture, capture or gather fish, … engage in any fishery activity on Philippine municipal waters without a license or permit (16)
- Local authority or permit for small and medium commercial fishing vessels to operate within 10 to 15 km areas from the shoreline in municipal waters (Sec. 18) - Commercial fishing in municipal waters with depth less than 7 fathoms (Sec. 18)	
- Limited entry to the municipal waters by way of registry of municipal fisherfolk (Sec. 19) - The LGU shall formulate the mechanisms for inclusion or exclusion procedures (Sec. 19)	
- 15 km from the coastline (Sec. 58) (where 7km is 3.76 miles)	- 3 nautical miles from the coastline (Sec. 3) (or 7 km)
- LGU in coordination with the FARMC to have jurisdiction in rule making pursuant to RA 7160 (Sec. 16)	
- Management of contiguous fisheries such as bays shall be done in an integrated manner not based on political subdivisions (Sec. 16)	
- Grant of fishing privileges in municipal waters to fisherfolk organizations (Sec. 17)	
- Some commercial fishing in municipal waters (Sec. 18)	- That commercial fishing boats shall be allowed to operate only in RP waters or 7 or more fathoms deep (Sec. 17) - Commercial fishing allowed in waters within a distance of 7 km (3.76 nautical miles) from the shoreline (sec 17)

- Limited entry to the municipal waters by way of registry of municipal fisherfolk (Sec. 19) - Limited entry into over-fished municipal areas (Sec. 23)	- "No person shall exploit, occupy, produce, culture, capture or gather fish, … engage in any fishery activity in the Philippine municipal waters without a license or permit (Sec. 16) - Zoning and classification of municipal waters for the purpose of awarding through public bidding, areas for the construction or operation of fish corals, oyster culture beds or the gathering of fry, the LGU shall set aside not more 1/5 of the areas earmarked. (Sec. 29)
- Preference given to resource local users adjacent and nearest to the municipal waters (Sec. 7)	
- Incentives for municipal and small scale commercial fisherfolk - 10% of the credit and the guarantee funds of government financing institutions for the purpose of enhancing our fisherfolk competitiveness (Sec. 34)	- Municipal and small scale fishermen who are members of cooperatives may avail of financing from any fund administered by the Central Bank from rural banks under a supervised credit scheme (Sec. 43)
- Licensee to operate only in RP 7 or more fathoms deep subject to the rules and regulations of the Dept (Sec. 28)	- In waters more than 7 fathoms deep with the use of fishing boat more than 3 gross tons 9 (Sec. 3c)
- Incentives for municipal and small scale commercial fisherfolk - 10 percent of the credit and the guarantee funds of government financing institutions for the purpose of enhancing our fisherfolk competitiveness (Sec. 34)	
- Incentives for commercial fishers to fish farther into the EEZ (Sec. 35) - long term loans to finance acquisition and or improvement of fishing vessels - limited period of tax and duty exemptions for the importation of fishing vessels - entitlement to duty and tax rebates on fuel consumption (Sec. 35)	

Sources: RA 8550 (1998) and PD 704 (1975).

National Integrated Protected Area System Act (RA 7586)

Considered a "landmark legislation" (Ramos 1997), the enactment of the National Integrated Protected Area System Act reversed the government's tendency to put biodiversity protection in the periphery of environmental management and reframed its strategy of parks and protected areas management. Two significant donor-based projects were created to implement NIPAS.

As a joint program of the DENR and NIPA, the Conservation of Priority Protected Areas (CPPAP) of 1994 emerged as the second phase of the IPAS program responsible for administering the NIPAS Act in ten pilot sites: Batanes Protected Landscapes and Seascapes, Northern Sierra Madre Nature Park, Subic-Bataan Protected Area, Apo Reef Marine Nature Park, Mt. Kanlaon Nature Park, Mt. Apo Nature Park, Mt. Katanglad Nature Park, Siargao Wildlife Sanctuary, and, Agusan Marsh Wildlife Sanctuary (Ramos 1997).

The 1993 National Integrated Protected Areas Program (NIPAP), a project of the DENR Parks and Wildlife Bureau (PAWB) with the European Union (EU) was conceived to carry out the provisions of the NIPAS Act, particularly the formation of Protected Area Management Boards (PAMBs). The PAMB is a multi-sectoral board in charge of administering protected areas and the General Management Plan. Under the NIPAP, eight additional priority sites have been selected for protected area management.

Table 2-6: NIPAP Sites, NGOs Involved and Their Status

Site and location	NGO	Area (approx.ha)	Population	Status30
Coron island	PAFIF, Conservation International	22,284	2,000	Initial protected area plan
El Nido-Taytay	El Nido Foundation, KKP/WWF, PRRM	90,321	16,200	Congressional action in progress
Mt. Guitingguiting	KKP/WWF	50,000	50,000	Congressional action
Mt. Isarog	Care Philippines, Pili Water District	35,000	35,000	Presidential proclamation
Mt. Malindang	Care Philippines, PALS (AusAid), SEARCA	36,694	45,000 to 1,000,000	Imminent Presidential Proclamation
Mt. Pulag	Office of the Presidential Adviser on the Peace Process	11,550	20,000	Public hearings completed
Malampaya Sound	ESSC, USAID	200,115	35,000	Congressional action
Mts. Iglit and Baco	Fauna and Flora Int., Conservation International	75,445	45,000	Initial Protected Area Plan; hearings scheduled on February 2001

Source: Simpson and Bugna, Biodiversity, Conservation and the Community. A literature review and inputs from the NIPAP Experience. Essentials of Protected Area Management in the Philippines, Vol. 1 (Quezon City: DENR-PAWB-NIPAP, 2001).

Indigenous People's Rights Act (1997)

This law recognizes the rights of indigenous peoples (IPs) to "own, manage and control ancestral domains and ancestral lands and its resources" (Manzano 1997). IPRA defines ancestral domains as "all areas comprising lands, inland waters, coastal areas and natural resources therein held or occupied by (their) ancestors communally or individually since time immemorial" (Quicho 2001). The law provides that IPs have a right to "community ownership" of ancestral domains. This is interpreted to mean that ancestral lands are not public lands. These lands may not be sold. Resources may be utilized, developed and "claimed" by the IPs who cannot be "ejected" from their ancestral land base (Leonen 1998). Ancestral rights are operationalized through the issuance of a Certificate of Ancestral Land Claims (CALC) or a Certificate of Ancestral Domain Claims (CADC). The DENR directive on Community-based Forest Management Program (CBFM) recognizes the rights of IPs to ancestral domains in both forests and coastal areas. The passage of IPRA is considered a policy shift away from a previous exclusionary view of upland and indigenous peoples. Its enactment also sets the stage for re-examining Regalian principles and the existing property rights system enforced by the state.

IX. Institutional Support for Community-Based Resource Management Undertaking

Forestry Sector

The Ramos administration officially adopted the community-based strategy in forest management through E.O. 263. This declared community-based forest management as the government's strategy for managing forest resources. In this period, the DENR, through DAO No. F96-29 integrated all community-based forestry projects into a "Community-based Forest Management Program" (CBFMP) in order to solidify institutional support for participatory forest management and to address earlier problems posed by overlapping tenure instruments. Hence, the CBFMP became a consolidation of the Integrated Social Forestry Program, Upland Development Program, Forest Land Management Program, Community Forestry Program, Low-Income Upland Communities Project, Regional Resources Management Project, Integrated Rainforest Management Project, Forest Sector Project, Coastal Environment Program, and Recognition of Ancestral Domains/Claims.

Fisheries Sector

Building from whatever gains the government derived from previous coastal management projects such as those undertaken in the Central Visayas and Lingayen Gulf, the Philippines embarked on a Fishery Sector Program in 1991. Its pursuit of current programs, the Fishery Resource Management Program, Coastal Environment Program and Coastal Resource Management in the Philippines were intended to increase the number of target coastal community-beneficiaries, and increase incomes through fish productivity, livelihood support, and marine sanctuary development. The Fisheries Sector Program (FSP), 1991-1996, an ADB/OECF-funded program sought to build the institutional capacity of the DA in coastal resource management. Its objectives were environmental rehabilitation, poverty alleviation through income diversification, and increased productivity of the sector (WB 1998; Pomeroy 1995). FSP was instituted in 112 bays all over the Philippines utilizing the following program components: resource ecological assessments; coastal resources management; research monitoring and extension; law enforcement; credit; establishment of bay-wide management councils infrastructure; and, community organizing (Ferrer and Nozawa 1997). Reforms under the Fisheries Development Program of FSP included:

- Significant contribution to structuring demands of representative groups for marginal fishers and to shaping the Fisheries Code (WB 1998);

- Shift from open access policy through a rational system of resource utilization based on maximum sustainable yields;
- Enforcement of fisheries laws;
- Emphasis on integrated management approach based on bay-wide coastal resource management planning;
- Application of tools of sanctuary development, artificial reef establishment and mangrove rehabilitation; and,
- Utilization of offshore fisheries through the formulation of trade incentives for off-shore fishing and reduced import rates for imported fishing vessels.

Later, these reforms were incorporated into the expanded Fisheries Resources Management Program (FRMP) in 1999. The FSMP was expected to cover additional bays beyond the initial 12 bays chosen under FSP in 1991. In 1993, DENR Administrative Order No. 19 created the Coastal Environment Program (CEP), which was a purely DENR funded project. Similar community-based management strategies, such as organizing and community-based management councils, were employed by the CEP (Ferrer and Nozawa 1997). Model replication and institution-building activities are now being carried out by the Coastal Resources Management Program, which since 1996 has established six "learning areas" covering 29 municipalities and 670 km of shorelines (Courtney and White 2000).

Taken together, these developments formed "new paradigms" for coastal governance in the Philippines. Institutional changes demonstrate the existence of a regime in integrated coastal management and of co-management arrangements throughout the country where LGUs collaborate with communities through budgetary allocation and support. Trends today also show that the national government is more ready to assume the role of technical and training assistance provider to LGUs in the field of CRM (Courtney and White 2000).

Table 2-7: Coastal Resource Management Projects in the Philippines since the 1980s.

Coastal Resource Management Project	Year Implemented	Management Tools and Strategies	Evaluation
Central Visayas Regional Project (WB loan)	1984 to 1992	Watershed management and near shore development, mangrove reforestation, coral reef protection and marine sanctuary development	Lack of systematic data storage prevented evaluation of program
Marine Conservation and Development Program (USAID and Silliman University)	1984 to 1986	Generation of community-based coral reef management	Model for other communities; diving tourism in Apo and Balicasag Islands; increased fish yields in sanctuary
Lingayen Gulf Coastal Area Management Program (USAID and	1986 to 1992	Integrated coastal management; fisheries data analysis (to measure fishing effort),	Results of the fisheries data analysis were not applied because of lack of political will to stop over-fishing

ASEAN)		education and resource management planning	
Fisheries Sector Program Fisheries Development Program (DENR and ADB)	1991 to 1997 1990 to 1994	Generation and implementation of bay wide CRM plans in 12 bays chosen for their rich fishery ecosystem and coastal poverty; community organizing - end to open access policy based on maximum sustainable yields and enforcement of fisheries laws - decentralization by integrated management approach - sanctuary development, artificial reef establishment and mangrove rehabilitation - trade incentives to offshore fishing; reduced import rates for imported fishing vessels	Baseline information for evaluation was lacking Reduced poverty levels from 80 percent in 1989 to 65 percent in 1995 (WB 1998)
Fisheries Resource Management Program	1999 to 2004	- fisheries data management, community-based law enforcement, credit support, fisheries legislation and community-based coastal resource planning and implementation (WB 1998)	
Coastal Environment Program (DENR)		Community participation and establishment of national marine protected areas; shoreline quality	Faced with budgetary constraints; could be a coordinating unit to support a national policy for ICM in the

		and shoreline land use	country
Coastal Resource Management in the Philippines (DENR and USAID)	1996 to 2003	Integrated coastal management that makes use of participatory; multi-sectoral, multidisciplinary and multi-levels process planning, implementing and monitoring; establishment of marine sanctuaries, coral reef and near shore rehabilitation	Increased fish yield and income from tourism activities

Source: White and Vogt, "Philippine coral reefs under threat: lessons learned after 25 years of community-based reef conservation" and White and Deguit "History and Status of Coastal Resource Management in the Philippines," in Report on Coastal Resource Management Programs in the Philippines: Lessons of Relevance for the Bohol Marine Triangle Biodiversity Project (Coastal Resource Management Project and the Sulu Fund for Marine Conservation Foundation, Inc., 2000).

X. INNOVATIONS IN RESOURCE MANAGEMENT PRACTICES

A decentralized framework provided a conducive environment for rationalizing NGO-initiated community-based projects through technology and information sharing and systematic documentation of findings. It created a policy environment that engineered a "phase" for civil society groups to engage strategically with government. NGO involvement with government in coastal resource management was characterized by "strategic engagement". Operations falling under this category were exemplified by NGOs that worked as contractors in government initiated or co-funded resource management projects. An example is the NGO for Integrated Protected Areas (NIPA) tasked with administering the Global Environmental Facility fund in the 1992 debt-for-nature swap arrangement between the Philippine government and the World Bank (Magno 1999).

NGOs also immersed themselves in local communities and local governments in pursuit of similar goals. A coalition NGO like the Partnership for the Development of Human Resources in the Rural Areas (PhilDHRRA) evolved a Tripartite Partnership for Upland Development that pushed for welfare objectives for upland peoples, agro-forestry technology, capacity-building for communities, and improvement of land tenure claims – in efforts to influence legislation on ancestral domain (Magno 1999).

NGO involvement was significant in bringing about "complex management" innovations in governance, such as the following:

Tenure-based Approach to Resource Management. The Community-based Forest Management Program developed three types of tenure instruments. The Community-based Forest Management Agreement (CBFMA) provides for ownership and forest product utilization rights for the community. The Certificate of Stewardship Contract (CSC) is designed for families and individuals "actually occupying or tilling portions of forest lands within CBFM areas". A Certificate of Ancestral Domain Claim (CADC) is issued to indigenous peoples after ancestral domains have been delineated both in forest lands and coastal waters and determined in accordance with a management plan (Quicho 2001).

Multi-stakeholder Management Tool in Resource Management. Such innovations included the integrated coastal resource management program in Balayan Bay launched in 1991 by Haribon Foundation and carried on to the present day by the Kabang Kalikasan ng Pilipinas (KKP-WWF) in the municipalities of Mabini and Tinggloy, Batangas, and, management of Tubbataha Marine National Park, a World Heritage Site by CRMP and KKP-WWF. Management strategies employed in these sites brought new challenges to coastal resource management. Of importance was an understanding of the socially differentiated nature of the "community" which in Mabini and Tinggloy were identified to include divers, tourists and resort operators and the locals. In Tubbataha, the absence of a traditionally existing community in the reef did not preclude the development of a multi-sectoral management body (White and Vogt 2000).

Table 2-8: Examples of NGO Participation in Coastal Resource Management in Various Parts of the Philippines
Participatory Management

CRM Site	Year	Participatory Management Tools/Strategies	Observations
Panguil Bay, Mindoro (The Network Foundation Inc. – Fisheries Sector Program (FSP)	1991	Local empowerment of fishers; livelihood component	Only 50% of cooperatives formed were found active
San Pedro Bay, Tacloban Leyte (Labrador)–FSP	1991	Barangay planning; coastal and environmental education	Uncertain
Danao Bay, Mindanao (Pupuli Foundation)	1991	Establishment of mangrove sanctuary	Creation of a Baliangao Wetland Park; supported by LGUs
Barili Bay, Cebu (Tambuyog Development Center)	1994	Coastal resource management planning; training of local volunteer programs	Lacking LGU support
Batan Bay, Aklan (University of the Philippines–Western Visayas)	1992	Formation of fisherfolk association	Participation in an Integrated Municipal Coastal Resource Management Council

Source: Rivera and Newkirk, "Power from the people: a documentation of non-governmental organizations' experience in community-based coastal resource management in the Philippines," in *Ocean and Coastal Management*, Vol. 36 (1-3): 73-95, 1997.

Protected Areas Management

The NIPAS Act of 1997 provided for community-based area management planning that would incorporate information on land use classification and zoning. Innovative management practices included the designation of buffer zones; multiple use areas and protection zones; habitat conservation and rehabilitation; biodiversity management; socio-economic activities such as community-organizing; and, promotion of scientific research (Ramos 1997).

Advancing Participatory Methods for Resource Management

Borlagdan (2000) documented the participatory management strategies of six (6) communities under the Community-based Forest Management program of the DENR. In the case studies of communities of San Agustin, Sierra Bullones; Capalonga, Camarines Norte; Nagtipunan, Quirino; Banica River Watershed; and Kalakhan Forest Reserve, Nueva Viscaya, the requirements of sustainable forest utilization in the CBFM sites were described. Generally, this pointed to the application of participatory methods of resource management, resolution of tenure-related claims, and incorporation of indigenous technology in sustainable forest use practices.

Mabini and Tinggloy Marine Conservation Program

This is an example of a community-based reef conservation project that applies an integrated approach to coastal resource management. Among the KKP-WWF's early intervention activities in Balayan Bay included the forming of a Mabini-Tinggloy Coastal Area Development (MaTing-CADC). This group brings together two municipalities toward an integrated discussion of matters that pertain to coastal use. Participatory rule making through ordinance-drafting among locals has been undertaken and are now used to promote sanctuary development and to prohibit dynamite fishing. Community-based rules and municipal legislation are now actively enforced by a *Bantay-Dagat* force patrolling waters of Balayan Bay. At this point, the survival of Bantay-Dagat is dependent on external financial support for provisions of motor-powered boats, incentives for patrolling, flashlights and radio.

The barangay of San Teodoro, Mabini today is showcased as a demonstration site for having achieved considerable levels of participation based on collective efforts and institution building (White and Vogt 2000) Research conducted in 1992, 1993, 1995 and 1997 indicated "measurable improvements" in fish density and diversity. This outcome was largely attributed to the management efforts, compliance and law enforcement in the communities. Fishers and locals were reported to "honor" the three sanctuaries by joint law enforcement of locals and resort operators.

The Mabini and Tinggloy Marine Conservation program provided a jump off point for KKP-WWF's larger undertaking in Sulu-Sulawesi waters – delineated by the Philippine government as an Integrated Conservation and Development zone by virtue of PD 1028 signed in 1997. A Presidential Commission for the Integrated Conservation and Development of the Sulu-Sulawesi seas composed of the KKP-WWF, various executive departments (Local Governments, Agriculture, Defense and ARMM), the Presidential Assistant for Mindanao and PCAMRRD undertake scientific research for the protection of endangered Tubbataha reefs (WWF-Philippines 1999) The Philippine government's cooperation with Malaysia and Indonesia provides the institutional base for regimes building formation in integrated coastal zone management in the region.

Source: KKP-WWF office, Maalindog St. U.P.Village Quezon City, Philippines; Kabang Kalikasan ng Pilipinas Foundation, Inc. in support of the Presidential Commission of the Sulu and Celebes Seas (1999) Dagat Sulu-Sulawesi.

The lessons derived from the six case studies accentuated the vital role of land tenure and community organization in practicing sustainable forest use. Success stories related by the Kalakhan site ("the community known to have obtained the "first" community forestry

stewardship agreement in 1974") incorporated indigenous practices, such as the use of an "indigenous fireline system as an important ingredient of community participation. Borlagdan (2000) reported how conflicting objectives of *kaingin* use were mitigated by a conflict resolution strategy that entailed the use of an indigenous "fireline" system and a ruling that adopted conditional *kaingin* farming into prevailing local practices. In this situation, compliance with local rules from the community was ensured by efforts to balance interests of resource protection and of livelihood. The adoption of "lighter penalties" imposed on infractions and noncompliant behavior, benefit sharing and multi-stakeholder resource planning were documented to be viable strategies for conflict resolution.

The experience of the Philippines in participatory resource management in the coastal zone has been documented in numerous works by different agencies. A few of the works mentioned here do not exhaust the efforts of NGOs in documenting success and failures of CRM. *Tambuli, Coastal Management, Marine Policy, Coastal Management in Tropical Asia* have made vital contributions on Philippine CRM activities. Oxfam, Britain, published a book entitled *Gleanings: Lesson in Community-based Coastal Resource Management* (Quezon City: Oxfam Britain Philippine Office) in 1999 to document NGO experiences in community organizing, gender mainstreaming in resource management, finance and livelihood program, and their effect on people's participation as well as their impact on policy making in government.

In 1998, the College of Social Work and Community Development of the University of the Philippines produced *Seeds of Hope: A Collection of Case Studies on Community-Based Coastal Resources Management in the Philippines* (Ferrer, Polotan-Dela Cruz and Agoncillo-Domingo, (eds.), which compiled the experiences in CRM of diverse coastal communities in Luzon, Visayas and Mindanao designated under the *Fisheries Sector Program*. The work documented the nature of NGO interventions, particular strategies applied and their impact on both fishery ecology and sustainable resource use. Emphasizing a related theme, Rivera and Newkirk (1997) documented some NGO experiences in the *Fisheries Sector Program* in a Festival Workshop on community-based coastal resource management held in Bolinao, Pangasinan, in 1995. Emphasis was given on the management strategies employed and the sustainability of intervention. Alan White Ph.D., country coordinator of CRMP published numerous works on CRM in Apo Islands, Negros, Tubbataha and Balayan Bay.

In protected areas management, the incorporation of bottom-top approaches in activities covered by zoning, boundary delineation and mapping were required of the participatory approach and of the contentious nature of protected areas management in the Philippines. The consent and involvement of communities were crucial in areas where divergence in resource use existed between IPs and other stakeholders.

Participatory mapping and zoning in NIPAP protected sites made use of community consultation and stakeholder analysis to arrive at more accurate and contextual maps and boundary delineations. The activity was noted to have brought communities together and provided an informal forum for communicating differing perceptions and resolving these. In February 1999, the NIPAP applied the threedimensional modeling tool to selected sites in efforts to expand avenues for community participation in various stages of the project cycle. The technology of transposing a GIS generated data into a 3-D model of a protected area site using a 1:10,000 scale gave an opportunity for community participants to actually view their sacred grounds, the extent of the delineated site, its natural resources and land use and infer from the given information the conservation activity to be undertaken. As a management tool, 3-D modeling extended the benefits of participatory approaches and supplanted the limitations of computer-generated Geographic Information Systems (GIS) data. The advantages of this tool were hinged on its less confrontational approach to the processes of raising claims and clarifying boundary issues. The process was reported to provide instantaneous verification and updating of varying land uses of forest and coastal lands, and of burial and ancestral sites thereby allowing a continuous process for engaged monitoring of constructed models (Botengan and San Juan 1999).

Simpson and Bugna (2001) provided an interesting report of the value of participatory mapping through 3-D modeling among the sites of the NIPAP. In this activity, measurable successes were indicated by the number and characteristics of (active) participants, the number of working days to complete the model and significantly, the number of women participants in the process.

Table 2-9: Various Participatory Strategies Employed in Resource Management and Protected Areas Management Projects.

Forest management	Coastal resource management	Protected areas management
Resource management planning	Baseline surveys	Zoning
Community organizing	Participatory coastal resource Assessment	Mapping
Multi-sectoral forest protection Committees	Community organizing	Three-dimensional modeling
Formulation end enforcement of local forestry rules	Monitoring and evaluation	Community consultation
Participatory land use	LGU-PO collaboration	Conflict resolution and management
Conflict resolution	Coastal law enforcement	
Sustainable forest management		

Sources: Borlagdan, Salve et al, *Six Case studies of community-based forest resource management in the Philippines* (Quezon City: Ateneo de Manila University, Institute of Philippine Culture, 2000); White and Deguit (2000).

Establishment of Co-Management Arrangements

In this period of change, local governments, people's organizations (POs) and NGOs popularized the development of co-management arrangements. These institutions functioned more effectively under decentralized arrangements but only where LGUs were willing to share with NGOs and communities considerable authority and responsibilities to manage the environment. In resource management, their institutionalization was based on the notion that it was impossible for "pure" communal property arrangements to take off even under decentralized frameworks (Pomeroy 1995).

Co-management rests on the idea that unless communities are organized they might not possess sufficient capacity to undertake the emerging integrated, multi-sectoral and multi-discipline approach to environmental management and protection. Types of co-management arrangements in the country include those where LGUs or the government exercise more authority to engage in the management tasks defined by the activities of "formulation", "resource estimation", "access rights", "harvesting regulations", "market regulations", "monitoring", "control" and "enforcement" (Sen and Nielsen 1996). Based on experience, community-based organizations, or POs have evolved user-based organizations where rules have been made and enforced by members. The role of LGUs has historically been reserved to establishing the framework for local institutions.

In forestry protection, the role of LGUs remained crucial in carrying out activities that were vital in the implementation of effective Community-based Forest Management activities. In selected communities in Cagayan, Misamis Oriental and Cebu City, these activities were documented to have included local government functions of budget appropriation used to fund CBFM

activities such as "updating" a municipal development plan and the "maintenance" of a forest management council. In a specific case study, budgetary authorization was sourced from the local development fund (Bernasor and Borlagdan 1999). LGU participation was noted in the process of creating multi-sectoral bodies designed for the activities of "decision making", "conflict management and resolution". In one case, LGU representatives of a CBFM council sanctioned the creation of an "incentive system", a system for rationalizing forest use, a mechanism for enforcing rules against violators, for formulating a "municipal-wide natural resource development framework" and drawing up of a municipal forest land use plan. The involvement of LGUs was imperative in ordinance-making, which formalized a city's declaration of a watershed area or the adoption of sloping agricultural technology. The role of an LGU was essential in creating an entity to enforce forest protection laws, and in securing funding from central government agencies and donor agencies (Bernasor and Borlagdan 1999).

In coastal management, co-management arrangements were considered essential to facilitate the beginnings of community-based work. This included initially recognizing NGOs, legitimizing barangay participation in management activities such the FARMCs up to the more critical tasks of legislation, law enforcement, marine sanctuary building, management plan making and establishing municipal FARMCs. In the Mabini and Tinggloy community-based marine conservation program, LGUs were responsible for organizing institutions required to legitimize and implement the management plan. The Mabini-Tinggloy Coastal Area Development (MaTing-CADC) created in the late 1990s laid a common venue for officials of the two neighboring towns to set their agenda for the protection of coral reefs in Balayan Bay. The San Miguel Bay Management Council established in 1993 "provided guidance" and coordinated legislative efforts and plans of concerned LGUs (Sen and Nielsen 1996). The collaboration of the seven (7) LGUs that made up the two provinces of Camarines Norte and Camarines Sur was vital to the production and implementation of an Integrated Coastal Fisheries Management Plan for San Miguel Bay (Garces et al 1995).

In NIPAP sites, the role of LGUs in biodiversity protection was evident in their place in the organizational structure of protected areas under the DENR-PAWB. Municipal authority to manage NIPAP sites does not rest on LGUs but on the DENR. They are represented in the PAMB, which is responsible for formulating the General Management Plan. Participatory methods to be employed in NIPAP sites particularly in site boundaries delineation, require the involvement of LGUs. In the case of Tubbataha Reef, the reef site was declared a national marine park by PD 306 (1995). The production of the Tubbataha Marine Park Management Plan came out of the combined efforts of the KKP-WWF, DENR, the province of Palawan and the Municipality of Cagayancillo (White and Vogt 2000).

XI. Policy Challenges for Environmental Governance in the 21st Century

Two fundamental problems confronted the government in the 1990s in its bid to improve its environmental governance structure. These pertained to the institutional weakness of the regulatory framework and more specific problems associated with implementing participatory resource management and biodiversity protection strategies. These problems were interrelated because effective people-oriented and participatory forms of environmental management depended on a strong regulatory framework and capacities for coordinating with devolved units and monitoring implementation from below.

Institutional Reforms within the DENR: Strengths and Weaknesses

In the recent past, the demands of a command and control arrangement has become incompatible with DENR's organizational culture and basic lack of institutional capacities (Vitug 2000). This basic weakness consequently diminished the effectiveness of the national government to implement its participatory programs. The reform process in the DENR has

been an arduous task even in the context of a democratic change in government. However, installing changes at the core of its regulatory framework and its organization could be taken to mean as self-equipment for better governance in the future.

The cancellation of non-complying TLA holders was pushed for under Factoran's DENR (Vitug 2000). During this administration, a ban in logging in old growth forests based on the NIPAS Act (RA 7586) was put in place together with a lumber export ban. Forest charges, reforestation charges and an environmental fee were imposed as an attempt, albeit a contested one, to reduce the volume of timber harvests (Vitug 2000). The administration of Victor Ramos reduced the number of TLAs by imposing license renewal requirements such as an aerial photograph and Environmental Compliance Certificate (ECC) requirements for approving an Integrated Annual Operations Plan issued to TLA holders . The Environment Management Bureau (EMB) reviews compliance to the Environmental Impact Assessment checklist and recommends the issuance of an ECC (Ramos 1997). Today, POs and LGUs may participate in the examination of an EIA checklist in order to substantiate EMB's recommendation (Bacalla 2002).

Former DENR Secretary Ramos' account of the "Bolinao Story" revealed how stringent review measures could otherwise be applied by the Environmental Impact Assessment Review Committee to evaluate a firm's application for an ECC. His administration endeavored to correct a review panel's oversight in issuing an ECC that eventually led to the Marcoppper mining spillage incident in the early 1990s. DENR invoked the use of "polluters pay" principle and imposed criminal liability on Marcopper in an attempt to scale back the damage caused by tunnel digging on communities and rivers.

Moving toward attempts at robust law enforcement in 1993, the DENR confiscated 40,883 cu. m. of illegal wood products and 334 logging machines and vehicles. It made 1,606 apprehensions and filed 1,107 criminal charges against violators. These actions were positively reported as "institutional strengthening" reform measures (Malayang 2000). The DENR presented itself as a major threat to the government's regulatory structure. Unfortunately, this has been a reflection of the government's prioritization or lack of prioritization of the environmental sector. As in the present, these were issues that became a crisis in financial support for effective field inspection and deployment of field resources – among other questions that includes corruption committed at the implementation level, at the regional and local offices of the DENR (Vitug 2000; Van den Top 1998) where financially vulnerable Community Environment and Natural Resource Office (CENRO) and Provincial Environment and Natural Resource Office (PENRO) officials dealt with influential interests (Severino 2000). At the DENR, criminal liability was only meted out to its lowest officials (Severino 2000; Vitug 2000).

Institutional weakness in the DENR prevented it from coping with the demands of donor-funded community-oriented projects, especially in the forestry sector. In the past, DENR failed to take cognizance of participatory methodologies behind community organizing and "social preparation" (Severino 2000). This pattern in DENR performance persisted until the implementation of CBFM projects in selected sites in Baggao-Amulong CBFM site in Cagayan, northern Philippines; Mat-I CBFM in the province of Misamis Oriental, southern Philippines and Mananga-Lusaran-Kotkot watershed Cebu city, central Philippines – where lack of coordination with the Department of Budget and Management (DBM) "perennial(ly) delayed payments to members of PO s for their reforestation activities" (Borlagdan et al 2000; Bernasor and Borlagdan 1999).

In the fisheries sector, the Bureau of Fisheries and Aquatic Resources (BFAR) historically experienced perennial organizational movements evidenced by its designation under the Natural Resources Department under PD 704 to its transfer to the Food and Agriculture Ministry in 1984 up to 1986. At the onset of the Aquino administration in 1987, an Executive Order No. 116 or the "Reorganization of the Department of Agriculture" was signed effecting a parceling up of BFAR's functions and a "reduction" of its significance to an advisor to the Department of Agriculture (PCARMD, undated). Today, there are major changes to BFAR's

so-called "reconstitution" with the creation of an Undersecretary for Fisheries and Aquatic Resources. The new Fisheries Code 1998 (RA 8550) provides that this new position is intended "solely for the purpose of attending to the needs of the fishing industry." In protected areas management, sites were reported to have experienced a high turn over rate for the Protected Area Superintendents (PASUs). This could be attributed to an apparent lack of commitment from central DENR to send personnel with a degree of familiarity with the local community. A case in point involved Mt. Iglit and Mt. Baco, which recalled their PASUs every ten months (Rambaldi and Camat 2001).

Challenges to Participatory Resource Management

Integrating a community-based resource management strategy poses specific problems in the areas of forestry protection, coastal management and protected areas management. Building an effective participatory framework depends on developing requirements that include:

- Environmental awareness among communities and indigenous peoples;
- Recognition of communal property rights in the context of co-management arrangement as a viable institution;
- Coordinating mechanism between local governments, national government agencies and local communities;
- Increased LGU awareness of their devolved powers in the field of environmental protection and heightened capacity to carry out devolved functions particularly law enforcement functions;
- Assertive donor based funding for protected areas, coastal management and social forestry sites; and,
- Convergence of policy implementation of lead agencies of the DENR, DA and Department of Agrarian Reform.

The more pressing problems behind institutionalizing these requirements stem from questions that revolve around the definition of the "community", local government capacity to carry out devolved functions, and an incentive system for evolving community-based protection and enforcement activities. Defining the community becomes a central question with the attendant rise of multi-sectoral, multi-discipline and multi-stakeholder approaches to resource management.

The problem is more pronounced in communities where resource use arrangements are designed for multiple use and requires an integrated and municipal wide approach, or when a community is divided along ethnic or indigenous lines. The prevailing debate today is between delineating a community along multiple use lines – which entails a recognition of variable interests – or along "core" community lines that differentiates indigenous and marginal interests from other interests (Braganza 1997).

Yet, the process of designating the core from the peripheral community has not been less problematic. Accounts of deliberate forest fires, of forcible removal of boundary markers, or of passivity and non-compliance among community members are results of conflicting ideas of the scope of the community. Efforts to develop viable indigenous conflict resolution mechanisms are considered adjunct to the issue of defining a community and developing a user community-based organization. These are being addressed by community-based programs at present.

Local government capacity to carry out devolved enforcement and monitoring functions depends on the level of awareness and, hence, of prioritization of environmental problems. There is also a connection between capacity and existence of funding. DENR's weak enforcement capacity pegged at a reference ratio of one forest ranger for every 4,000 ha. of land necessitates strong voluntarism from the ground. The example provided by Multi-sectoral Forest Protection Committees may indicate how a shared law enforcement scheme can augment gaps in the central enforcement apparatus. The process also will depend on the

existence of initiatives from both the national and sub-national levels of government or on a functional incentive system that rewards collectively formed enforcement groups.

The case of the Mabini and Tinggloy Bantay-Dagat in Balayan Bay provides a working case for a co-management structure and demonstrates the importance of rewarding law enforcers on sustainable resource management and conservation efforts.

In protected area sites, however, the high costs of local enforcement are attributed to the vast territorial scope of protected area sites. This problem further raises the issue of a centralized fund disbursement mechanism of the Integrated Protected Area Fund (IPAF). The NIPAS Act provides for an IPAF that is centralized at the national government. Revenues and fees generated from the administration of protected area sites accrue to an IPAF sub-Fund, which operates on the basis of a 25%-75% sharing scheme arrangement between the protected area site and the government. Local sentiments regarding the present scheme of financial sharing are not favorable at present (Simpson and Bugna 2001).

XII. Current Policy Response: The Arroyo Administration

Medium Term Philippine Development Plan 1999-2004

The *Medium Term Philippine Development Plan 1999-2004* recognizes the challenges of balancing the objectives, on the one hand, of economic development based on "increased productivity", "profitability" and "competitiveness" of the agricultural and fisheries sector and, on the other, the requirements of sustainable development, rural development and poverty alleviation. The plan underscores the need "to carry out integrated development and resource management programs addressing poverty alleviation." It acknowledges the importance of resource management that "involves all stakeholders" and "adopts indigenous cultural practices" and "development programs (that) seek to balance both the basic needs of the people and the need to restore natural resources." The Plan echoes the government's adherence to principles of "equity", "social justice" and "sound resource use practices." To achieve the following objectives, the government states five major policy strategies that orbit around "productivity and competitiveness", "diversification of production and resource use", "access to land and other productive resource", "environmental sustainability" and "institutional structure."

The Plan takes cognizance of specific issues that forestry and fisheries sectors are confronted with such as farmers" lack of access to land. Increasing pressure to fish is attributed to an increase in the fisherfolk population, relentless use of illegal fishing methods, and "general absence of a system which defines access to and type of use of open access fishery resources."

Government's two-pronged policy response is stated in the MTPDP. The first set of responses refer to key policy undertakings, such as the NIPAS 1992 as regard the log ban on old growth forests; the IPRA 1997; E.O. 263 establishing community-based forest management, and a Socialized Industrial Forest Management to address demands of the forestry sector. The Plan defers to the Fisheries Sector Program (1991) and acknowledges the "gestating" benefits of its coastal resource management component, which includes the on-going Coastal Environment Program, the National Biodiversity Strategy and Action Plan, the Sulu-Celebes Seas Commission, and the ASEAN Regional Centre for Biodiversity Conservation.

The second set of policy response proposes to meet specific targets based on the following:

- the development and management of 1,107 CBFM sites;
- the establishment of timber corridors in Mindanao;
- the rehabilitation of five major rivers;
- the rehabilitation of 2,000 ha or coral reefs "under the effective management of LGUs";

- implementation of user fees system for the use of natural resources with an initial project based on the Pasig River;
- the delineation and establishment of 102 protected areas; an evaluation of 131 more potential sites;
- identification of at least 10 threatened wildlife species (Philippine raptors, tamaraw, *pawikan*, dugong, crocodile, hornbill, migratory birds, tarsiers and bats) for their conservation and protection; and,
- adoption of a "spatially oriented approach to sector planning and development" that will integrate policy strategies of other Departments with this sector's objectives and targets.

In support of the policy objective of environmental sustainability, the national government seeks the promulgation of legislation on national land use, the environment, forestry, clean water, solid waste, oil spill prevention, non-conventional energy, land conversion tax, and bio-safety regulations.

"Banner Program" of the DENR 1999-2004

Under Angat Pinoy 2004 and previously under the Cerilles administration, the DENR professed to a forest delineation program as the Department's "banner program". The delineation of "forest line on the ground" using permanent as opposed to natural markers intended to address the continuing problem of upland migration and to strengthen enforcement of forest laws, particularly in already irrelevantly designated forest areas based on the 18-percent slope criterion. Concomitant activities have been carried out, which included aerial photography, production of certain "genetically superior planting stocks", control points and reforestation in accordance with forest delineation and as agreed upon in Philippine Agenda 21 (DENR Public Affairs Office January to June 2000).

Proposed Legislation

***Senate Bill No. 1942*.** At present, Senate Bill No. 1942 or "An Act Providing for the Sustainable Management of Forest Resources and for Other Purposes" has already reached the committee stage and is being pushed for plenary debate. This proposed bill will replace all other bills on logging and forest use. The proposed bill finally incorporates the institution of community-based forest management as a policy strategy and addresses issues of ancestral domain and Indigenous Cultural Communities (ICCs). The law defines ancestral domain as "all lands and natural resources occupied or possessed by indigenous cultural communities, by themselves or through their ancestors, communally or individually, in accordance with their customs and traditions since time immemorial, continuously to the present except when interrupted by war, *force majeure,* or displaced by force, deceit or stealth" (Sec. 3 c).

It adopts a policy of sustainable and integrated forest management, integrates principles of watershed management, community-based forest management, multi-sectoral participation, reforestation, protection and rehabilitation (Sec. 2). Community-based forest management (CBFM) is enshrined in SB 1942 as a "principal strategy" and defines it as the "responsibility" and "privilege" to "protect, manage, develop and utilize" forests. The Senate version defines the participants of CBFM to include forest communities, indigenous peoples and "other communities" whose "access rights" are acknowledged as well the responsibility to protect, manage and develop forests in a sustainable manner (Sec. 7).

The proposed law provides for a total ban on all commercial logging; maintains the 18-percent slope criterion definition of forest lands and recognizes indigenous people's who live in it and are connected to it for "subsistence" (Sec. 3v). The proposed law states that forest delineation using "concrete monuments, road or infrastructure, or any other visible permanent and practical signs" be undertaken with local governments (Sec. 17). The requirement of an Environmental Compliance Certificate is stressed in the Senate version particularly for activities involving mining and power generation (Sec. 49).

Policy Gaps and Bottlenecks

Gaps are detected in policies in the context of contradictory objectives pursued under different policy frameworks such as trade, agricultural and fisheries modernization and economic development.

State of the Nation Address (2001). Environmental governance is not a direct and primary concern of the Arroyo administration, which tasks itself with providing a million jobs to Filipinos. In her State of Nation Address delivered on 23 July 2001, the President enunciated the imperatives of agricultural modernization, educational reforms and IT development for alleviating poverty among the Filipino people.

While poverty alleviation objectives are clearly stated, their relationship with sustainable resource management are not expressed and must be inferred from the intent of the statements that say "[to] fight poverty, agricultural modernization will be socially equitable. We shall redeem in earnest the promise of land reform..." and "…a social bias to balanced economic development." The import of the first declaration is based on government's recognition of the value of farmers" tenure and security of land and micro-finance in ensuring the productivity of the agricultural sector. As a consequence, there is an official stress on government's target distribution of 100 Certificates of Ancestral Domain Claim to target beneficiaries. The DENR is the lead agency designated to monitor the work to be done in the sector (Pledges to the SONA 2002).

On the other hand, the concern for *balanced economic development* has momentarily precluded the sustainability requirement of growth. At this point, the end is directed toward alleviating the lives of the urban poor and their plight of homelessness, joblessness and oppressive wages. The Power Reform Law is pivotal in the Executive's legislative agenda and parallel undertakings are based on building a mass light transit system, removing "deterrents to investments in agriculture" and decongestion of Manila in favor of developing the CALABARZON and Batangas Port. What appears to be lacking are the components of the government's legislative platform for environmental sustainability as enunciated in the medium term plan 1994-2000.

Conflicting Statements and State Goals: Fisheries Code 1998. There are key issues in the Fisheries Code that are not compatible with the intent of its more participatory provisions and can hereby pose some serious impediments to the implementation of integrated coastal resource management and institutionalization of participatory resource management strategies. These features pertain to the limited entry provision of the Code, devolved powers of LGUs, and penalties. The challenge to the present Arroyo government is to examine these gaps in policy and support reforms.

The stated goals of protecting municipal fishing and small-scale fishing is incompatible with the objective of enhancing deep-sea fishing and off-shore exploitation of water resources. In a culture where the politician's personality and personal beliefs can get in the way of law enforcement, LGUs might lack the will to implement a coastal resource management program, forfeit opportunities for legislating municipal boundaries, and, hence, eliminate opportunities for promoting municipal fishery interests. This issue in combination with problems of weak law enforcement can render municipal waters vulnerable to commercial fishing.

There are provisions in the Code that do not strengthen the intent behind a limited entry regime. The Fisheries Code does not guarantee the exclusivity of use rights in municipal waters given the power of a local chief executive to open the 10.1 km to 15 km waters to commercial fishing. A contentious provision, this goes against the effort to define use rights in municipal waters and to establish a preferential use arrangement for municipal fisherfolk. Resting on a similar argument, expired fishpond lease agreements can now be extended not only to qualified fisherfolks but also to small and medium enterprises. The provisions on the powers and functions of the FARMCs particularly its recommendatory powers present a

serious challenge to the law's orientation toward preferential use rights and user-manager principle. The challenge may originate from local governments unaware of the nature of power sharing in a decentralized framework. They might similarly find threatening some of the more specific provisions on "demarcated fishery areas", the delineation of which rests on the Department of Agriculture (Quicho 2001). The Code is not consistent with its application of penalties and fines to be imposed on illegal fishing activities. While penalties for exporting *bangus* fry, *muroami* fishing, and operation of trawls and purse seine have increased, penalties for fishing with explosives, dealing in, selling, disposing of, for profit illegally caught or gathered fish and fishing with noxious substances such as sodium cyanide have been reduced under RA 8550. While electro-fishing is penalized with longer prison terms under the new Code, the same has decreased the duration of imprisonment for the use of fine mesh nets.

Noted also are significant provisions in the Code that remain to be tested by, as yet, non-existent implementing rules and regulations. The executive branch has yet to formulate specific implementing guidelines for the licensing of fishing gears for commercial vessels and fuel tax rebates attributed to commercial fishers. The Department of Agriculture has yet to devise rules to regulate the number and wattage of superlights; to identify species to be exempted from the use of fine mesh nets and to specify gears that destroy corals. Implementing guidelines also have yet to be crafted to determine the list of endangered species not covered by the Convention on the International Trade of Endangered Species (CITES) (Cruz-Trinidad 1998).

***Forest and biodiversity – Forestry Code, Obsolete Legislation*.** Congress has yet to pass a responsive overall forestry management law to replace the obsolete framework of the Forestry Code (PD 705) in use since the 1970s. This model has been historically criticized for imposing a western template that gave premium to a capital-intensive timber extraction industry (FAO 1993). Despite the incorporation of community-based forest management strategies and programs, forest management is still under the extraction-oriented and regulatory framework of the Forestry Code. Certain provisions, such as the slope requirement used to define the uplands and forest lands as well critical watersheds, no longer correspond with the extent of forest denudation and social realities. Hence, the integration of the more progressive amendments offered by the NIPAS 1992, E.O. 263 (1994) and IPRA 1997 should be able to hasten institutionalization of reforms. Simultaneously, there is a need to examine the state's land use policy and the quantity restriction related policies (Bautista 1994) to bridge policy gaps and objectives. In the absence of updated and progressive legislation, obsolete classification methods unnecessarily exhaust the DENR's resources allotted for forest and biodiversity protection. In the case of biodiversity protection, not all 209 sites (27,041 km) included in the national protected area system enjoy conservation and non-use status. About two-thirds of these areas are not used as conservation or park sites but are currently occupied by human settlements or are degraded and converted lands (Bugna 2001). This reality persists because the definition of critical watersheds and forestlands along the 18-percent slope no longer conforms to realities of migration and claims for tenure.

There also are prevailing questions that challenge the proposed SB 1942 such as those that pertain to definitions of "community". Current proposed amendments include a distinction of indigenous communities from local communities and other communities, and a change in the use of the term "subsistence" in order to accentuate the import of "livelihood" for forest occupants and indigenous peoples. Because the import of the latter is further stressed in the definition of "ancestral domain" and community-based forest management, the consent of IPs and local communities in the distribution of an Environmental Compliance Certificate prior to mining and power generating activities, is currently being sought as an amendment to the proposed law *(see SMFR bill matrix as of 13 February, Institute of Philippine Culture)*.

Other related proposed amendments include the modification of the 18-percent slope criterion because its current use does not differentiate forestlands under public domain from ancestral domains. A new view of regulation by fees and charges is sought in a proposed amendment to revise the present language that emphasizes monetary gain as opposed to regulation to

improve monitoring and enforcement by government *(see SMFR bill matrix as of 13 February, Institute of Philippine Culture)*. A new forestry code however may not ensure that preservation and sustainable resource use goals will be complemented by the aspirations of the Agricultural and Fisheries Modernization Act or R.A. 8435 (1997). Historically, forest conservation does not coincide with the targets spelled by agricultural development. The structural separation of the Department of Agriculture and the Department of Environment and Natural Resources may continue to reinforce the bureaucratic and policy divide between resource protection and agricultural development.

***Community-based Forest Management and Other Policies: Demand for Convergence*.** Objectives of community-based forest management policies should converge with the design and objectives of external policies such as policies on terms of access and of levels of technology of extraction (Bautista 1994). This is imperative if goals of sustainable forest resource use are to be upheld.

In the Philippines, the absence of a coherent and comprehensive land use plan, low costs of land lease, land acquisition costs, and low mining taxes establish a policy framework on forest resource use based on "generalized access". At present, the state promotes land use policy-making that highlights extractive resource utilization as opposed to an overall use plan that takes into consideration the specific environmental qualities of the resource base such as "technical and environmental qualities of land", "slope, "stability", "soil" and "rock composition", "resource composition" and "stock qualities" and "watershed function" of the resource (Bautista 1994).

The state's land lease policy is similarly lax with lease applications approved solely on the basis of good credit standing, collateral and capital (Bautista 1994). About 410,143 hectares of public lands are under the government's special land use lease agreement as of year 2000. These lands are divided among 20 lessees who pay the government an annual rent of as low as 300 pesos paid by a municipal market located in CARAGA to an annual rent payment of 225,227.49 pesos paid by a cement company. In the same agreement, NAPOCOR and an equipment site are both exempted from paying annual rent (FMB 2000). Forest use based on low forestry administrative fees is spelled out by DAO No. 18 (1993) and is sanctioned by the government (see Table 2-10).

Table 2-10: Revised Schedule of Specific Forestry Administrative Fees

Fees and charges	**Amount**
Application fee for Non timber forest products except rattan, gums and resins, etc.	20 centavos per unit of product measurement but not less than 250 pesos
Forest products processing and utilization	
Inspection of forest products	300 pesos per application
Certificate of registration	500 pesos per application
Wood processing plants	500 pesos/ application
Rattan manufacturing plant	500 pesos/ application
Grazing land	5 pesos / ha or fraction thereof but not less than 500 pesos
Special use of forest land	300 pesos / application
Mining prospecting	1 peso / ha or fraction thereof but not less than 500 pesos
License/permit fee for	
Forest utilization	400 pesos
Wood processing plant permit to operate regular saw mill and mini-saw mill (below 24 m3 to above 47 m3 daily rated capacity	750 pesos to 1,500 pesos
Annual rental	1 ha or less at 70 pesos/ha

Forest land uses except grazing lands	
	Over 1ha to 5 ha at 150 pesos/ha to 250php/ha
Grazing lands	15 to 20php / ha
Industrial tree plantations. Tree farm or rattan plantations	No rental during the first year; 50 centavos ha during the second year and 1 pesos /ha during the third year

Source: Forest Management Bureau DENR Administrative Order No. 18, 1993.

Regrettably, the state's policy does not enhance regulated forest extraction. Instead, it condones high level extraction practices as it did before the decline of TLAs in the late 1980s. Today there only remains 24 active TLAs with licenses having been issued as far back in 1977. The last of these are set to expire in 2010 (FMB Records, Management Division 2001).

Resource extraction levels conform to quantity restriction policies and can be controlled by devising mechanisms for resource inventory, boundary delineation and enforcement. The Philippines has yet to evolve a resource inventory that would ideally include information on the "composition", "volume", "economic and ecological value", "rate of depletion per specie", "resource category" and the "conditions (of the resource's) physical habitat" (Bautista 1994).

Reform Agenda

***Property Rights and Related Reforms*.** The government is faced with the challenge of strengthening institutions of community-based natural resource management. We are still waiting for reforms to be made in law enforcement and interagency coordination. However, relative progress has been made in community-based and participatory arrangements for managing and using natural resources. These changes pertain to reforms on tenure and ancestral domain in the field of forestry and biodiversity protection. The integrated programs of Community-based Forest Management provide a structure defined by features such as renewable lease contracts and forest product utilization.

Owing to the different nature of coastal and marine resources, current community-based coastal resource management institutions still lack the tenure-based instruments developed in the forestry and protected areas sectors even if some arrangements formed earlier overlap with the coastal zone. These refer to the Community-based Forest Mangrove Protected Areas, Mangrove Stewardship Agreements, Marine Protected Areas and the Certificate of Ancestral Domain Claim which are already in place or have been applied earlier by the DENR for its social forestry and biodiversity protection projects. Crystallizing property rights institutions in the local level will both shape and promote variable forms of rights of access. This will propagate participatory methods of decision-making thematically directed around sustainable resource use practices.

SB 1942 provides that community-based forest management is a "principal strategy" and "involves the vesting of access rights and responsibilities to local communities and IPs." Rights of access have been generally defined to include the right to *manage* and *develop* forest resources in a sustainable manner. The proposed legislation should, however, make more specific the definition of "tenure" beyond a "guaranteed peaceful access to and use" of the forest, and harmonize features of already existing tenure instruments.

As part of the learning process, future reforms in the fishery sector might build on and strengthen the existing preferential use rights system established by the 1998 Fisheries Code. At this juncture, the desired limited entry regime and the ideal of "community waters" remains a remote possibility in view of possible problems that emanate from contentious provisions on municipal water delineation that the present law provides.

Specific reforms must: address contentions around the 10.1 km and 15 km delineation of municipal waters by the Fisheries Code; consider possibilities to tax marine extraction; and consider attaching rent on commercial and aquaculture activities. There is an imperative need

to quickly pass a new Forestry Code that has provisions for re-examining an already obsolescent slope-based classification of forest lands and critical watersheds; revising the system of penalties, fees, and forest charges; and addressing the question of forest delineation.

***Reforms in Co-management Schemes*.** Co-management schemes involving different degrees of power sharing between local governments and communities have become more prevalent in the fisheries sector which has integrated the use of the Fisheries and Aquatic Resource Management Council (FARMC) based on user manager principles of resource management. The FARMC, despite its limited governing powers, provides a forum for formal participation in decision-making, especially in formulating local ordinances. Another interesting feature of the FARMC is its capacity to be nested on higher level management bodies all the way up to the national level thereby paving the way for an ecosystems wide management planning process.

The Protected Areas Management Board (PAMB) may function as a representative body that incorporates stakeholders at regional, municipal up to the barangay levels including indigenous community groups and NGOs. Like the FARMC, the PAMB can exercise appropriate powers that will permit sectors to participate in the planning aspect of the decision-making process. Developing a more authoritative local decision-making body may be replicated in the community-based forest management field. The proposed SB 1942 makes explicit its commitment to "multi-sectoral" participation in forest management. What has been documented so far, however, are management tasks and institution-building experiences of community-based organizations. In the absence of management councils similar to and yet stronger than FARMC in the forestry sector, ordinance creation can be prone to the exercise of political prerogatives.

***Dealing with Problems of Scale through Greater Application of Ecosystem based Resource Management Approaches*.** Donor-oriented projects have dominated coastal, forestry and biodiversity sectors. These projects capitalize on local impact and build on indigenous management systems that provide immediate response and feedback from the agency to the beneficiaries. However, while these projects strategically proliferate throughout the country, their efforts are by and large disparate and their impact limited to the locale. Reforms on integrated community-based resource management can be further institutionalized. Integrated coastal zone management, for example is already enshrined in the 1998 Fisheries Code, providing a license for bay-wide management programs such as the one in Balayan Bay. The model can be made to test program sustainability and enhance the learning process.

***Reforms around Monitoring and Evaluation of Community-based Natural Resource Management Projects*.** A shift away from biophysical indicators for assessing the effectiveness of bottom-top resource management projects underline the link between poverty, environment and development. The incorporation of relevant social criteria of success can more realistically monitor progress in participation. Measurements based on resource yield can often be misleading because they do not reveal levels of empowerment of beneficiaries.

What can be alternatively used is an evaluation of "social inclusion" of target beneficiaries and communities. Indicators can be developed using criteria of improved political and economic well-being measured in terms of increased capacities to participate in management bodies and to enjoy material benefits of resource management. On the part of NGOs, this calls for greater application of participatory methods of research in organizing communities, use of seasonal calendars, historical walks/transects and livelihood analysis. DENR field personnel tasked to coordinate with NGOs and communities need to be trained in these methods. This training can address problems of high turnover of DENR field personnel assigned as PASUs in protected areas sites. It can equip with suitable skills personnel responsible for preparing community-based forestry management sites and personnel of BFAR tasked to provide technical assistance to marine protected sites.

Analysis of community-based natural resource management (NRM) projects in forestry and coastal zones in the Philippines has already probed into the value of a livelihood component. Livelihood and micro-finance components are already being incorporated into community-based NRM projects as a means to link trade-offs of resource protection and consumption. However, coastal resource management literature, while paying enough attention to community organizing and institution- building, still does not adequately discuss the impact on livelihood of resource use practices.

A livelihood analysis approach which emphasizes *access* to livelihood opportunities and entitlements from resource use has been developed and is being used by donor agencies such as the UNDP, CARE, DFID, Oxfam-Britain and the Institute of Development Studies, Sussex, to evaluate community-based NRM in developing countries. This approach ascertains the community's experiences of access to institutions of natural resource management and to the benefits of environmental services brought about by an externally designed sustainable resource management project (see Leach, Mearns and Scoones 1997).

Emphasis is given to developing alternative sources of income and livelihood in community-based forestry management projects. The thrust is to transform reforestation activities from a purely conservationist undertaking to one that is more financially sustainable for the community. In this scenario, a livelihood analysis of community access to the benefits of agroforestry, assisted natural regeneration, timber stand improvement, and other livelihood activities based on non-timber product utilization can be made in order to determine levels of empowerment and, if possible, extent of poverty alleviation.

***Reforms in Local Government Capacity-building*.** A decade after the passage of the Local Government Code, local government units still are not fully capable of performing devolved functions of coastal resource management, social forestry and biodiversity protection. Documented cases report of local government units which lack both technical infrastructure and political interest to carry out environmental functions. The environmental protection agenda has been dependent on the individual politician's inclinations and less on the dictates of local and national planning. Hence, environmental concerns appear only erratically on the agenda of the executive and of legislative councils, on budgetary appropriation and on appointments for fishery or forestry technicians.

The business of regulating and making major environmental laws still reside with the central government. Even with decentralization, the task of local government units remains at the level of implementing devolved environmental functions and powers. In some areas, this has been inevitably translated to perfunctory lawmaking on matters that include beautification, Clean and Green programs, clean ups, waste collection, waste segregation, or definition of municipal waters. A genuine agenda for environmental protection with a mandate and framework from the national government is needed to push local government units to move beyond window-dressing exercises. At the same time, reforms at the national level must be undertaken to increase the budgetary requirements of the Philippine National Coast Guard, enhance multi-sectoral forest protection committees, and support Bantay-Dagat facilities.

***Environmental Education Reforms and Integrated Development and Environmental Planning*.** The protection of the environment must be integrated into the educational curriculum. Schools must teach students the basics of garbage segregation, carry out recycling and gradually aim at zero waste management. This undertaking can be done by establishing links with environmental NGOs that can re-route a portion of their environmental education activities – and budgets – from rural to urban sites where most of consumption and wastes production take place. Recycling can be enhanced by garbage buy-up or waste exchange schemes, which NGOs can set up between corporate groups, educational institutions, and the media.

The DECS and private educational accreditation groups should incorporate recycling and waste segregation programs as a condition for accreditation. Planning must take into serious consideration sustainability in all its dimensions – ecological, economic and social. This

requires that the Philippine Agenda 21 be re-conceptualized beyond ecosystems (forests, coastal areas, biodiversity and urban ecosystems). It should move toward more specific areas of curriculum design, land use planning, energy production and consumption, water use, car production, appliance production, advertising, plastics production, etc., the ideal being to use sustainable development as an overarching framework of economic planning and as a basis for our security and foreign policy.

XIII. FINAL REMARKS

"New" politics in the Philippines should be revisited to transform "conventional" governance (Ramos 1997) to one that weaves the social, economic and political dimensions of society with ecological realities. This kind of governance will the complete nemesis of our colonial environmental management history. It will be a challenge to our experience with decentralization and civil society formation and a fruition of our present commitment to sustainable development and democratic change.

Our successful efforts in building, promoting and duplicating bottom-top institutions to curb environmental destruction must move simultaneously with a strengthening of the top-down institutions of planning, security, education, industry and agriculture. Through this merging of total efforts from above and below, we can move closer to becoming a whole ecological and life-giving unit, and preserve our environmental legacy for the benefit of coming generations of Filipinos.