FIFTH PILLAR:

Managing the Environment

The pervasive and accelerating environmental degradation is one of the leading contributors to poverty. Poor environmental conditions caused by poor sanitation, air and water pollution undermine the ability of the country's poor to pursue economic opportunities. When a person becomes unable to anticipate, cope with and recover from the impact of calamities or natural disasters and health risks due to the degradation of the environment or depletion of the natural resources, he or she reduces his or her opportunities to improve the quality of his life and security.

Rapid environmental change can lead to special circumstances in the society, such as migration, urbanization, deterioration of the person's health condition, displacement of indigenous peoples or communities and lack of access to basic environmental services such as water. These changes put added stress on the lives of the people and those who already are deprived in many aspects of their lives. Indeed development specialists have recognized the strong link between economic activity and environmental change. This interaction became the basis of identifying economic (foregone opportunities/revenues), social (e.g. health, poverty), natural (loss of biodiversity) and institutional (conflicts in management) criteria for efficient management of resources. Needless to say, any poverty alleviation effort should work alongside a framework of growth that seeks to maximize social returns (quality of life) and minimize environmental costs. Hence, there is a need to integrate indicators of the economy and the environment more closely (World Bank, 2003).

State of Philippine Environment

According to the Environmental Outlook report of the Asian Development Bank (2001), environmental degradation in the Asia-Pacific region is pervasive, accelerating, and unabated. This condition is now one of the leading contributors to poverty in the Asia and Pacific region. Further, inadequate health conditions caused by poor sanitation, drainage and air quality undermine the ability of the region's poor to pursue economic opportunities.

Recent indicators show that the Philippines' environment is no exception and its natural resources are now under considerable stress. The country has the second

lowest supply of available water in Southeast Asia. Metro Manila generates the highest BOD[10] *(biochemical oxygen demand)* loading (water effluent) in the country, about 201,952 kg per day in 2000, of which 58.2 percent came from the food and beverage processing firms. A higher BOD level indicates that there is a greater number of organisms that are competing for available oxygen in the water. This shows that Metro Manila's waste water treatment system is unable to avert pollution of nearby bodies of water given its level of industrialization. Moreover, urban air pollution has led to health and productivity losses. Metro Manila alone generated 60 mcg/ cu.M. of particulate matter (1999) and 33 mcg/cu.M. sulfur dioxide (1998). The country's fish stocks are on the verge of depletion and our mangrove forests have decreased *by 70* percent. Similarly, our biodiversity has diminished because of the increasing number of endangered species of flora and fauna, i.e. 212 in 1988 to 284 in 2000.

Today, only 5.4 million hectares of the 15.88 million hectares of the country's forestland remain covered with forests. Over-exploitation and inappropriate land use practices have disrupted the hydrological condition of watersheds, resulting in accelerated soil erosion, siltation of rivers and valuable reservoirs, increased incidence and severity of flooding, and decreasing supply of potable water (ADB, 2001). The contribution of forestry to GNP has declined considerably through the years. Overall, it lost 96 percent of its share of GNP over a 25-year period (See Table 24). Considering this trend and the degradation that happened to the forest resources, it is highly unlikely that forestry will ever regain its lost share of the GNP.

Table 24. Contribution of Forestry to GNP, 1975-1995

Year	% share of forestry to GNP
1975	2.48
1980	2.55
1985	1.97
1990	0.83
1995	0.14

Source: Rapera, 2003

The Philippine economy loses an average of P17 billion annually due to the depletion of the fish stocks brought about by unsustainable fishing methods (World Bank, 2003). The said depletion, coupled with increases in the fishing effort seriously threatens the long-term condition of our marine resources particularly the fisheries sector. Table 25 below shows the decline in fisheries production over the last eight years.

Table 25. Fisheries Production in MT, 1997-2004

Year	Production in Metric	Change in Product	Production Value	Losses in billion
1	884,651	-	25.9	1.4
1	940,533	6.3	29.7	1.6
1	948,754	0.9	32.2	1.7
2	946,485	0.2	33.9	1.8
2	976,539	3.2	36.1	1.9
2	1,041,360	6.6	38.9	2.0
2	1,045,316	0.4	41.4	2.2
2	1,070,725	2.4	43.8	2.3
A	956,387	2.8	32.8	2.0

Source: BFAR

*Losses *due to siltation and sedimentation; Municipal* (30%); *Commercial (5%)*

The evident threat of environmental degradation and resources depletion should draw our attention to addressing management problems. To work for the efficient use and/or conservation and protection of the country's watersheds, forests and marine resources, the following reforms are recommended.

Direction for Reforms:

- *Adopt and implement an integrated watershed management policy.* Enact the Forest/ Watershed Management Bill that gives way for a comprehensive and integrated approach of utilizing and managing our forests and mangrove areas. The integrated approach provides for a synchronized set of guidelines on how the competing uses of forestlands/watersheds such as agricultural and infrastructure development can be harmonized in order to achieve economic and environmental objectives. Likewise, critical watersheds and damaged habitats should be rehabilitated to arrest further degradation of resources.

- *Enact a national land use policy*. Adopt and implement a comprehensive land use policy to delineate what, when, where and how the private firms and the public should employ our natural assets. A national land use policy allows for an orderly and optimal use of the country's land resource and harmonization of different land use objectives.

- *Formulate and adopt capacity-building and awareness initiatives*. Empower the direct and indirect resource users (i.e. fisherfolk, farmers, indigenous peoples) thru capacity-building and environment awareness initiatives which may be spearheaded by the LGUs. The Fisheries Code of 1998 for example strengthened further the capacity of the LGUs to oversee the fishing and

aquaculture activities within their jurisdiction. More than the LGUs, the resource users such as the fisherfolk must be well informed and well trained to make them equally involved and participate in the day-to-day management of coastal resources. The active participation of the stakeholders will also help establish transparency and accountability in ecogovernance and promote equity in the approaches of local resources management.

- *Formulate and adopt an appropriate incentive system*. Create and adopt economic incentives and disincentives, and appropriate pricing mechanisms to direct the behavior of resource users and other stakeholders. Provision for taxes, subsidies, grants, and technical assistance that entice resource users to organize themselves for the purpose of protecting and conserving the forest, marine and coastal resources is needed. Environmental costs such as extraction or rehabilitation costs and externalities such as pollution must also be made an integral part of the production process. This helps reduce risks and attract more investors to participate.

- *Establish proper environment accounting system*. Improve the information system in natural resources to establish baseline information in water resources, inventory of forest and watershed resources. Maximum sustainable yield and carrying capacity of our ecosystems mental laws. Strengthen the oversight function must be established and be made readily of Congress to ensure the proper and strict available to stakeholders and other interested implementation of vital environmental laws parties.

- *Ensure strict implementation of environmental laws*. Strengthen the oversight function of Congress to ensure the proper and strict implementation of vital environmental laws such as the Solid Waste Management Act, Clean Air Act and the Clean Water Act.