1.0 Introduction

1.1 Background of the Project Component

This study is a component of the Philippine Poverty Environment Initiative (PPEI), a project that links environmental management to poverty alleviation. The PPEI supports the target of both the United Nations Development Program (UNDP) and the United Nations Environment Program to integrate pro-poor climate and environmental concerns into development planning and economic-decision making. In pursuing such target, this study sought to analyze the allocation and management of public expenditures in the Philippines to provide key guidance to strategic planning and budget preparation and to identify ways in which to improve the efficiency and effectiveness of resource allocations.

The study seeks to review the public environmental expenditures at national and local levels and analyze how they contribute to environmental and poverty outcomes. It also aims to explore the manner by which the level of environmental expenditure data could be incorporated in the Medium Term Expenditure Framework (MTDF).

1.2 Objectives of the Study

This study has the following specific objectives:

1. To identify the levels, trends, composition, and other characteristics of spending on the environmental activities and concerns at national and local levels of government; and

2. To analyze how environmental expenditure (a) contributes to environmental and poverty outcomes and (b) can be incorporated in the Medium Term Expenditure Framework (MTEF).

1.3 Framework of the Study

The study covered the following tasks and the corresponding deliverables:

Scope of Work	Deliverables
Review of public environmental expenditure	- Inception report containing the methodology and the key steps in the analysis to be undertaken - Report on Public Environmental Expenditure at the national and local levels

Analysis of the contributions of public environmental expenditure to environmental and poverty outcomes and how it can be incorporated in the METF	- Integrated Report on the following: • Analysis of the contributions of environmental expenditures to environmental and poverty outcomes in the country • Possibility and strategy of incorporating environmental expenditures to environmental and poverty outcomes in the MTEF - Draft policy documents to materialize inclusion of environmental expenditures for environmental and poverty outcomes in the METF

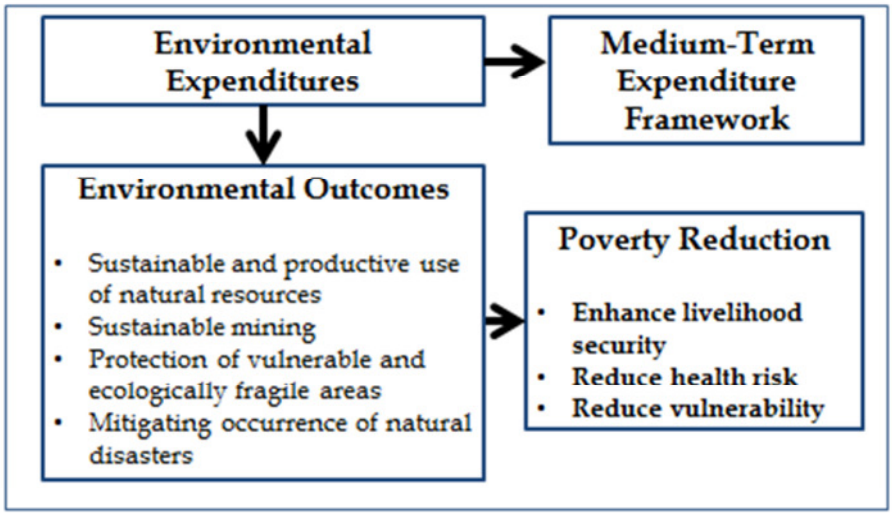
The operational framework in Figure 1 was used to cover the different tasks. After the expenditure analysis, the study covers the identification of significant environmental outcomes based on the medium-term development plan (MTDP) of the national government. Understandably, spending on the environment should result in the improvement of the environmental situations or conditions. This study focuses on the four target outcomes spelled out in the MTDP, namely: (a) sustainable and productive use of natural resources; (b) sustainable mining; (c) protection of vulnerable and ecologically fragile areas; and (d) mitigating occurrence of natural disasters.

The study also explores certain indicators in reducing poverty as a result of the improvement in the environmental situations, primarily the (a) enhancement of livelihood security; (b) reduction in health risk; and (c) reduction in the vulnerability of the poor people.

The study uses descriptive approach in relating environmental expenditures and environmental outcomes. Thus, both qualitative and quantitative data were used to describe the environmental situations but no statistical analysis showing the dependency of one variable with the other was conducted.

Attempts to identify expenditures for each environmental domain were unsuccessful because of the absence of such information in the annual budget of the national government. Hence, recommendations on how to improve the budgeting system that mainstream environmental expenditures were presented in the study.

Figure 1. Operational Framework in Analyzing Environmental Expenditures and Outcomes



1.4 Consultancy Approach and Tasks

To achieve the objectives of this component, the Consultant worked closely with a number of government agencies as the primary source of data and as key informants on data interpretation. Specifically, the Consultant coordinated with the following agencies for the different information relative to the study:

National Government Agencies	Data Set Requirements
Department of Budget and Management (DBM)	- Five-year environmental expenditure of the national government
Department of Finance – Bureau of Local Government Finance (DOF-BLGF)	- Five-year environmental expenditure of local government units
National Economic Development Authority (NEDA)	- Applicable population and poverty data
Department of Environment and Natural Resources (DENR)	- Details of spending objects and environmental priorities and accomplishments
DBM, DOF-BLGF, NEDA, DENR, and DILG	- Acceptable definition and scope of environmental expenditure

The following tasks were undertaken in the order shown in Figure 2:

Task 1	-	Public Environmental Expenditure Review
Task 2	-	Environmental and Poverty Outcomes Analysis
Task 3	-	Strategy Development for MTEF
Task 4	-	Drafting of Policy Instrument

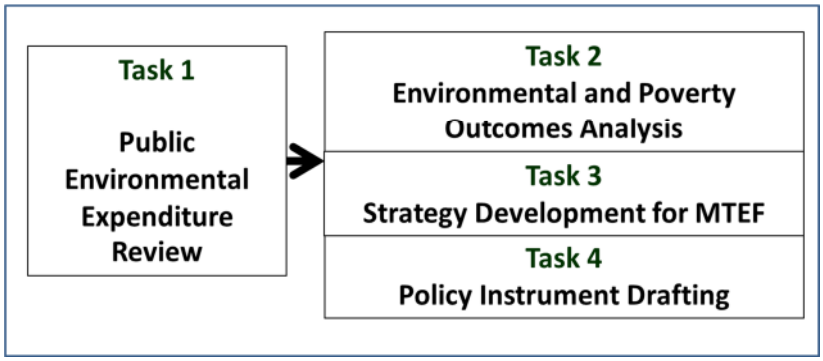


Figure 2. Flow of Tasks Undertaken

2.0 Philippine Environment Sector

2.1 Country Background

The Philippines is an archipelago with more than 7,100 islands located in Southeast Asia. It measures 1,850 kilometers and stretches from below Taiwan all the way to the northern tip of Borneo at the south. The total land area is approximately 299,764 square kilometres. The country is divided into three island groups -- Luzon, Visayas, and Mindanao. Luzon is the largest island with an area of 141,000 square kilometres. Mindanao covers 102,000 square kilometres while Visayas has 57,000 square kilometres. The country's capital city is Manila.

The country lies in one of the richest marine realms in the world. Three prominent bodies of water surround the archipelago—the Philippine Sea and the Pacific Ocean on the East, the South China Sea on the west and north, and the Celebes Sea and the coastal waters of Borneo on the south.

Multiple ethnicities and cultures are found throughout the islands. The country's population is estimated at 93.6 million as of 2010, making it the 12th world's most populous country. The population is projected to double within three decades. In addition, 11 million Filipinos live overseas. The country has the highest birth rate in Asia.

The country's location on the Pacific Ring of Fire and its tropical climate make it prone to earthquakes and typhoons. Nonetheless, the country is endowed with natural resources and has one of the richest areas of biodiversity in the world. Its climate is hot, humid, and tropical. Most of the mountainous islands are volcanic, and the country also lies within the typhoon belt of the Western Pacific. It also experiences frequent seismic and volcanic activities.

The Philippines is a constitutional republic with a presidential system of government. The President functions as both head of state and head of government as well as the commander-in-chief of the armed forces. The president is elected by popular vote for a single six-year term, during which he or she appoints and presides over the cabinet. The bicameral Congress is composed of the Senate, serving as the upper house, with members elected to a six-year term, and the House of Representatives, serving as the lower house, with members elected to a three-year term. The senators are elected at large while the representatives are elected from both legislative districts and through sectoral representation. The judicial power is vested in the Supreme Court, composed of a Chief Justice as its presiding officer and fourteen associate justices, all of whom are appointed by the President from nominations submitted by the Judicial and Bar Council.

2.2 Macroeconomic Performance

The country's gross national product (GNP) has been growing over the years with 8.2% real growth rate in Year 2010, although a decline at 4% was registered in Year 2009. The gross domestic product had been more erratic in terms of growth with 3.8% in Year 2008 as the lowest and 7.6% in year 2010 as the highest over the seven-year period in Table 1. Population continues to grow at a rate of 2% per annum.

Table 1. Macroeconomic Indicators (Year 2004-2010)

	2004	2005	2006	2007	2008	2009	2010
Nominal GNP (PM)	524,806.00	5,885,050.00	6,570,310.00	7,249,323.00	8,250,249.00	8,809,984.00	11,996,077.00
Real Growth GNP (%)	6.9	5.3	6.1	8.0	6.2	4	8.2
Nominal GDP (PM)	4,871,555.00	5,437,905.00	6,032,624.00	6,648,245.00	7,423,213.00	7,678,917.00	9,003,480.00
Real Growth GDP (%)	6.4	4.9	5.4	7.2	3.8	1.1	7.6
Inflation, CPI	6	7.6	6.2	2.8	9.30	3.20	3.80
91-Day Treasury Bill	7.3	6.4	5.4	3.4	5.4	4.2	4.3
Exchange Rate	56.04	55.09	51.31	46.15	44.47	47.64	45.11
LIBOR Rate, 6 months	1.79	3.77	5.3	5.3	3.05	1.12	0.52
Population (in millions)		85.26	86.97	88.71	90.46	92.23	94
Population Growth Rate				2	2	2	1.9

2.3 Institutional Structure on Environment and Natural Resources

The **Department of Environment and Natural Resources (DENR)** is the government agency primarily responsible for the country's environment and natural resources. Its thrusts and priorities are anchored on a five-point agenda of (1) poverty reduction and hunger-mitigation, (2) socio-economic development, (3) natural resources conservation, (4) climate change and adaptation measures, and (5) environmental education and enforcement. Within the department are bureaus that are responsible for specific environmental domains.

The Forest Management Bureau provides support for the effective protection, development, occupancy management, and conservation of forest lands and watersheds. It is concerned with the grazing and mangrove areas, reforestation and rehabilitation of critically denuded/degraded forest reservations, improvement of water resource use and development, ancestral lands, wilderness areas, and other natural reserves. It also deals with the development of forest plantations, including rattan, bamboo and other valuable non-timber forest resources, rationalization of the wood-based industries, regulation of utilization and exploitation of forest resources including wildlife, to ensure continued supply of forest goods and services. The bureau also assists in the monitoring and evaluation of

forestry and watershed development projects to ensure efficiency and effectiveness. It undertakes studies on the economics of forest-based industries, including the supply and demand trends on the local, national and international levels as well as identifying investment problems and opportunities in various areas.

The Land Management Bureau is responsible for matters pertaining to rational land classification management and disposition. It recommends policies and programs for the efficient and effective administration, surveys, management and disposition of alienable and disposable lands of the public domain and other lands outside the responsibilities of other government agencies. The latter include reclaimed areas and other areas not needed for or are not being utilized for the purposes for which they have been established. It assists in the monitoring and evaluation of land surveys, management and disposition of lands. It is also involved in carrying out the provisions of the Public Land Act (or Commonwealth Act No. 141, as amended).

The Mines and Geosciences Bureau is the steward of the country's mineral resources. It is committed to the promotion of sustainable mineral resources development. It is responsible for the development of a responsive policy framework in partnership with stakeholders to govern mineral exploration, mining and investment decisions. It promotes geological studies as an integral element of socio-economic development, environmental protection, and human safety. It looks into the known environmental impacts of mining and the need for restoration and rehabilitation of mining-affected areas. It develops and adopts environmental and geoscientific technologies.

The Protected Areas and Wildlife Bureau is tasked to **c**onserve the country's biological diversity through the (a) establishment, management and development of the National Integrated Protected Areas System; (b) conservation of wildlife resources; and (c) nature conservation information and education. It is also mandated to (a) establish and manage protected areas; (b) conserve wildlife; (c) promote and institutionalize ecotourism; (d) manage coastal biodiversity and wetlands ecosystems; (e) conserve caves and cave resources; (f) inform and educate on biodiversity and nature conservation; (g) manage parks such as the Ninoy Aquino Parks and Wildlife Center and the Hinulugang Taktak National Park; and (h) negotiate biodiversity-related multilateral environmental agreements and monitor national implementation.

The Ecosystem Research and Development Bureau is the principal research and development unit of the DENR. The activities of this bureau are focused on the five major ecosystems, namely forests, upland farms, grassland and degraded areas, coastal zone and fresh water, and urban areas. Its mission is to provide appropriate technology and information through research, development, and extension towards the enhanced productivity and sustainability of natural resources and protection of environment for the improvement of quality of life of the Filipinos. In carrying out the mission, it is mandated to (a) formulate an integrated research and development

program on the country's ecosystems and natural resources; (b) monitor and evaluate the research, development and extension programs of the DENR and its regional offices; (c) coordinate research and development activities of all regional research offices; (d) conduct research to generate technologies towards sustainable management and use of Philippine ecosystems and natural resources; (e) organize and translate all recommendable findings into understandable language and presentation; and (f) facilitate dissemination of research information and technology to all possible users.

The Environmental Management Bureau ensures attainment of an environmental quality that is conducive for present and future generations, specifically with respect to air, water and toxic and hazardous chemicals management. It also pursues cooperation and partnership regarding (a) environmental impact assessment system implementation; (b) solid waste management; and (c) Pollution Adjudication Board.

The attached agencies of the DENR include the National Mapping and Resource Information Authority, Laguna Lake Development Authority, Natural Resources Development Corporation, Pasig River Rehabilitation Commission, Philippine Reclamation Authority, National Solid Waste Management Commission, and National Water Resources Board.

The National Mapping and Resource Information Authority surveys and maps the land and water resources of the Philippines. Its major mandate is to provide both the public and private sectors with mapmaking services as well as geographic and resource information. Its mission is to generate and disseminate reliable and up-to-date geographic information and provide related services, by employing state-of-the-art technology, in support to national development and security. It is mandated to act as the central mapping agency, depository, and distribution facility for natural resources data in the form of maps, charts, texts, and statistics.

The Laguna Lake Development Authority leads, promotes, and accelerates sustainable development in the Laguna de Bay Region. It carries out regulatory and law-enforcement functions with provisions on environmental management, particularly on water quality monitoring, conservation of natural resources, and community-based natural resource management. Taking sustainable development as the centrepiece of its development efforts, this authority sets its direction from a regulatory agency to a market client-driven development agency.

The Natural Resources Development Corporation was created in response to the need for a more direct and active involvement of the government in the management and conservation of natural resources. It is tasked to promote and/or undertake the development and/or use of technologies and systems that complement the utilization of natural resources.

The Pasig River Rehabilitation Commission was created to ensure that the Pasig River is rehabilitated to its historically pristine condition conducive to transport, recreation and tourism. It has the mandate to plan, coordinate,

evaluate, approve, implement, supervise, and monitor plans, programs, projects and activities; and enforce rules and regulations towards the rehabilitation of the river. It mission is to transform Pasig River and its environs into a showcase of a new quality of urban life.

The Philippine Reclamation Authority, formerly the Public Estates Authority, was created to serve primarily as the clearing house for all reclamation projects in the country. It has created assets for the government by converting underutilized land into valuable and income-generating real estate properties, especially in its 1,500-hectare reclamation project in Manila Bay known as Bay City. It is involved in a wide range of projects and delivery of services related to land development and urban renewal, infrastructure projects as well as financing and construction of buildings particularly for other government agencies. It is vested with the power and authority to develop and dispose idle public lands, to enter into contracts and loan agreements with private, public or foreign entities and to exercise the right to eminent domain in the name of the Republic of the Philippines.

The National Solid Waste Management Commission is the major agency tasked to implement Republic Act 9003, the Ecological Solid Waste Management Act of 2000. This law calls for the institutionalization of a national program that will manage the control, transfer, transport, processing and disposal of solid waste in the country. The Commission oversees the implementation of appropriate solid waste management plans by end-users and local governments as mandated by law. The Commission is also ordered to establish the National Ecology Center to serve as the depot of information, research, database, training, and networking services for the implementation of the provisions of the Ecological Solid Waste Management Act.

The National Water Resources Board is the lead government agency in the water sector. It is conferred with policy-making, regulatory and quasi-judicial functions. It is responsible for ensuring the optimum exploitation, utilization, development, conservation and protection of the country's water resource. Its functions and responsibilities are three-fold: formulation and coordination of policies, programs and standards relating to the water sector; management and regulation of all water-related activities; and regulation and monitoring of water utilities. It is also tasked to (a) ensure access to safe, adequate water supply and sanitation at acceptable rates and levels of service; (b) allocate sufficient water that will ensure food security and spur economic development of the country; and (c) protect the water environment in order to preserve flow regimes, biodiversity and cultural heritage as well as the mitigation of water related hazards.

2.4 State of Environment and Natural Resources

Environmental Concerns

The Updated Medium-Term Philippine Development Plan (2004-2010) sought to pursue five major thrusts on the environment and natural resources sector, namely:

a. Sustainable and more productive use of natural resources to promote investments and entrepreneurship;

b. Sustainable mining that adheres to the principles of sustainable development, economic growth, environmental protection and social equity;

c. Protection of vulnerable and ecologically fragile areas, especially watersheds and areas where biodiversity is threatened;

d. Creation of a healthier environment for the population; and
e. Mitigating the occurrence of natural disasters to prevent the loss of lives and properties.

Four thematic areas were articulated in the plan to achieve a "Green Philippines"—forest management, pollution and hazard control, energy independence, and protected area and wildlife management.

The Philippine Development Plan 2011-2016 enunciates the degraded state of the country's environment and natural resources. The most pressing environmental concerns in the country include (a) pollution in major urban centers, (b) threat of emerging water scarcity, (c) deteriorating quality of farm land, (d) shrinking forested lands, (e) severe pressure on unique biodiversity, (f) threat on coastal and marine resources, (g) mixed results of mining resource development, and (h) extreme vulnerability to environmental hazards and climate-related risks.

Pollution in Major Urban Centers. Air and water pollution problems are epidemic in the Philippines and continue to increase rapidly. Only about 10% of sewage in the Philippines is treated or disposed of in an environmentally sound manner. The rest goes back to nature – usually the sea. In this context of poor waste treatment, water pollution is a growing problem for the country's groundwater, rivers, lakes, and coastal areas. In Metro Manila, up to 58 per cent of groundwater has been found to be contaminated. Coastal waters around Manila Bay are extremely polluted and deteriorating further due to illegal fishing and dumping practises, bad sewerage, industrial toxins and overpopulation. Air pollution in other urban areas of the country is becoming a problem. The deterioration of air quality in the country most especially in Metro Manila has adverse impacts on public health. While the country probably progressed in finding solution to other related environmental problems, improving the air and water quality standards remain a distant dream.

Threat of Emerging Water Scarcity. The Philippines obtains its water supply form three major sources: rainfall, surface water resources, and groundwater resources. Surface water resources include rivers, lakes, and

reservoirs. While the country is bestowed with abundant water resources, the demand for water has continuously increased, resulting in the decline of groundwater levels.

Deteriorating Quality of Farm Land. The quality of land resources in the country has declined because of erosion, pollution, and land conversion. Soil erosion has affected land productivity and limited the rehabilitation or restoration of degraded lands. The changing weather patterns have brought about prolonged droughts and excessive rains which affected yields and income from farming.

Shrinking Forested Lands. Primary forests in the Philippines are being destroyed due to both logging and agricultural expansion, significantly decreasing the Philippine's natural resources. Despite government bans on timber harvesting following severe flooding, illegal logging continues. Clearly, the main threats to Philippine forests come from the collection of fuel wood, settlements in forestlands, conversion to agricultural uses, forest fires and illegal logging.

Severe Pressure on Unique Biodiversity. Biodiversity loss in the Philippines stems from habitat destruction, overexploitation, chemical or environmental pollution, and biological pollution. Habitat destruction can be traced to destructive and unsustainable practices such as logging, fires, land conversion, siltation, destructive fishing methods, and encroachment and occupancy in protected areas. It can also be due to nature-wrought destructions or natural calamities like volcanic eruptions, earthquakes, typhoons, and pests and diseases.

Threat on Coastal and Marine Resources. The country's coastal and marine resources include coral reefs, sea grass beds, mangrove and beach forests, fisheries, invertebrates, seaweeds, marine mammals, and others. While the Philippines has one of the world's longest coastlines, resources are threatened by some unsustainable human activities and coastal development.

Mixed Results of Mining Resource Development. The mining industry contributes significantly to economic growth, specifically in terms of investment and employment. However, a large number of mining activities are not covered by mining permits. In addition, certain mining projects have been alleged to have caused environmental degradation, physical displacement of indigenous people, and cultural dislocations.

Extreme Vulnerability to Environmental Hazards and Climate-Related Risks. The country is prone to natural hazards such as tropical cyclones, floods, earthquakes, and volcanic eruptions. This is primarily due to the country's location and natural attributes. Climate change has also aggravated these hazards. Climatic anomalies such as heat waves, intense rains and floods, droughts, and increasing frequency of typhoons and tropical storms have been recorded of late. These are projected to recur in the future.

3.0 Methodology of Public Environmental Expenditure Analysis

3.1 Definition of Environmental Expenditures

Environmental expenditures have been defined in various ways and contexts. The most definitions were those espoused by the Organization for Economic Cooperation and Development (OECD), the System of Integrated Environmental and Economic Accounting (SIEEA), and the Classification of Environmental Protection Activities and Expenditures.

OECD Concept of Environmental Expenditures

One of the earliest definitions was developed in the 1970s and refined in the 1980s by the OECD in its Pollution Abatement and Control (PAC) expenditure framework. The OECD defines PAC activities as "purposeful activities aimed directly at the prevention, reduction and elimination of pollution or nuisances arising as a residual of production processes or the consumption of goods and services" (IBRD 2003). The PAC definition focused on brown environmental issues as opposed to green environmental issues for mapping expenditures. Thus, it excluded natural resource management and nature protection. The PAC framework was designed to capture expenditures by sectors: the public sector, the business sector, and households.

Soon, the Eurostat developed a questionnaire on Environmental Protection Expenditure and Revenues (EPER) to collect PAC and other environmental protection data. In this questionnaire, public sector (government) expenditures were broken down by into economic category and medium or domain. The economic category can either be recurrent, capital or transfer. The medium or domain includes air, wastewater, waste, soil and groundwater, noise, biodiversity and landscape, and other domains.

In 2001, the OECD and Eurostat integrated the PAC Framework and the European System for the Collection of Economic Information on the Environment (SERIEE) to further harmonize the data definitions, categorization, treatment, and collection. Thus, the OECD's environmental performance reviews subsequently included expenditures on PAC activities plus nature conservation and water supply.

Currently, the OECD's definition of environmental protection expenditures covers both PAC expenditures and nature protection expenditures (protection of biodiversity and landscape). Specifically, environmental protection activities include "purposeful activities aimed directly at the prevention, reduction and elimination or pollution or any other degradation of the environment resulting from the production processes or from the use of goods and services." The current OECD definition of environmental protection activities continues to exclude water supply and natural resource management (IBRD 2003). Nonetheless, in the

framework of cooperation with non-member countries, the OECD has extended the coverage of expenditure classification to include four categories of environmentally related expenditures as follows:

1. Pollution abatement and control (PAC), or expenditures for deliberate investments and actions to reduce pollution levels;
2. Technological improvements, or investments and actions taken for commercial reasons that nonetheless have environmental benefits;
3. Nature protection activities; and
4. Drinking water supply and other natural resources management, investments, and operations (although this is not included in most OECD countries statistics).

OECD also uses a Creditor Reporting System (CRS) which serves as an international source of data on bilateral and multilateral aid commitments. The system categorizes general environmental protection into seven: (a) environmental policy and administrative management, (b) biosphere protection, (c) biodiversity, (d) sites preservation, (e) flood control, (f) environmental education and training, and (g) environmental research.

System of Integrated Environmental and Economic Accounting

The System of Integrated Environmental and Economic Accounting (SIEEA) is another initiative was made by the London Group on Environmental Accounting after the 1992 Rio Earth Summit. This system covers economic activities and products related to the environment. It defines environmental activities as "those which reduce or eliminate pressures on the environment and which aim at making more efficient use of natural resources." They also include those which are not necessarily carried out for environmental protection reasons but which nevertheless produce clear, measurable environmental benefits."

The SIEEA classifies environmental activities by purpose: (1) environmental protection activities, (2) natural resource management and exploitation activities, (3) environmentally beneficial activities, and (4) minimization of natural hazards. Environmental protection activities are those where the primary purpose is the protection of the environment, that is, the avoidance of the negative effects on the environment caused by economic activities." Natural resource management activities include research into management of natural resources, monitoring, control and surveillance, data collection and statistics, cost of the natural resources management authorities at various levels as well as temporary costs for facilitating structural adjustments of sectors concerned.

Classification of Environmental Protection Activities and Expenditures

This is a generic, multipurpose, functional classification for environmental protection jointly prepared in 1994 by the Eurostat and the UNICEF and was revised in 2000. It is consistent with the OECD questionnaire and fully integrated into the Eurostat SERIEE and the SIEE. It was accepted in the UN Family of International Economic and Social Classifications and was recommended by the relevant UN expert group for approval as an international standard.

The first level classification in CEPA includes the following where Classes 1 to 7 are referred to as environmental domains:

1. Protection of ambient air and climate
2. Wastewater management
3. Waste management
4. Protection of soil and groundwater
5. Noise and vibration abatement
6. Protection of biodiversity
7. Protection against radiation
8. Research and development
9. Other environmental protection activities.

3.2 Budgetary Classification of Expenditures in the Philippines

The Government Accounting and Auditing Manual of the Philippines classifies expenditures into (a) current operating expenditures and (b) capital outlays.

Current operating expenditures refer to appropriations for the purchase of goods and services for current consumption or for benefits expected to terminate within the fiscal year. They are further classified into personal services (PS) and maintenance and other operating expenses (MOOE).

Capital outlays refer to appropriations for the purchase of goods and services, the benefits of which extend beyond the fiscal period and which add to the assets of government, including investments in the government-owned-or-controlled corporations (GOCCs) and their subsidiaries as well as investments in public utilities.

The New Government Accounting System in the country defines PS as accounts that include basic pay, all authorized allowances, bonus, cash gifts, incentives and other personnel benefits of officials and employees of the government. MOOE include expenses necessary for the regular operations of an agency like, among others, traveling expenses, training and seminar expenses, water, electricity, supplies expense, maintenance of property, plant and equipment, and other maintenance and operating expenses. Financial expenses include bank charges, interest expense, commitment charges, documentary stamp expense and other financial charges. It also includes losses incurred relative to foreign exchange transactions and debt service subsidy to GOCCs.

The sectoral distribution of public expenditures used by the Department of Budget and Management in the annual appropriation has the following classifications: (a) economic services, (b) social services, (c) defense, and (d) general public services.

Economic services include (1) agriculture, agrarian reform, and natural resources; (2) trade and industry; (3) tourism; (4) power and energy; (5) water resources and flood control; (6) communication, roads, and other transport; and (7) other economic services.

Social services include (1) education, culture, and manpower development; (2) health; (3) social security, welfare, and employment; (4) housing and community development; (5) land distribution; and (6) other social services.

Defense refers mainly to domestic security while general public services include (1) general administration; (2) public order and safety; and (3) other general public services.

3.3 Environmental Domains in the Philippines

The Compendium of Basic Environment and Natural Resources Statistics for Operations and Management (2000-2008) of the DENR classified the environmental areas as follows: (a) forestry; (b) biodiversity; (c) coastal and marine; (d) mines and geosciences; (e) lands; and (f) environment. Environment specifically pertains to air, water, and waste management.

Such classification matches the agency for each respective domain: Forest Management Bureau for forestry; Protected Areas and Wildlife Bureau for biodiversity; Mines and Geosciences Bureau for mines and geosciences; Bureau of Lands for lands; and other agencies like the National Water Resources and National Solid Waste Management Commission for other environmental domains.

In the Accomplishment Report of the DENR (as of November 2011), the major priority domains include air, water, solid waste, forests, among others.

3.4 Government Institutions Identified as Environment-Related

As earlier mentioned, the DENR is the primary agency with environmental mandates. This department has bureaus and attached agency that attend to the different environmental domains.

In addition, there are also non-environmental departments with environmental concerns and functions, such the Department of Agriculture, Department of Science and Technology, Department of Public Works and Highways, and Department of Energy.

The responsibility areas of these departments with respect to environmental matters are as follows:

Government Institutions	Relevant Responsibility Areas
Department of Agriculture	• Agriculture and fisheries sector that provides food and vital raw materials for the

	rest of the economy • Agri-based enterprises • Increasing income of farmers and fisherfolk, thereby contributing to the achievement of the national goals of alleviating poverty, generating productive opportunities, fostering social justice and equity, and promoting sustainable economic growth
Department of Science and Technology	• Scientific and technological research and development in areas identified as vital to the country's development • Indigenous technology and the adaptation and innovation of suitable imported technology, and in this regard, undertake technology development up to commercial stage • Design and engineering works to complement research and development functions • Transfer of the results of scientific and technological research and development to their end-users • Technological services needed by agriculture, industry, transport, and the general public
Department of Public Works and Highways	• Infrastructure planning for national roads and bridges, flood control, water resources projects and other public works • Design, construction, and maintenance of national roads and bridges, and major flood control systems. • Technology to ensuring the safety of all infrastructure facilities • Quality in public works and highways
Department of Energy	• Energy exploration, development, utilization, distribution and conservation

4.0 Public Environmental Expenditure Patterns

The five-year expenditures based on the annual budget of the Philippine government were analysed in terms of the following: (1) five-year total expenditures, (2) economic classification, (3) institutional classification, (4) environmental classification, and (4) annual average expenditures.

The local government expenditures were analysed for provinces and cities in year 2009 and 2010.

4.1 Five-Year Expenditures

The Philippine government appropriated a total of P297 billion for the environment during the past five years (2006-2010), representing 4.63% of the total national government budget of P6.422 trillion (Table 2). The biggest share went to agriculture and agrarian reform (41.80%), water resources and development and flood control (28.36%), and natural resources and environment (19.16%). The highest percentage of environmental expenditure against the total national government expenditure was registered in Year 2009 at 6.5%. There has been an increasing trend in the percentage of environmental expenditure over the years, except in Year 2010 which declined to 4.95%

The yearly provision for environmental expenditure has been dismal when compared with the gross domestic product with 0.81 % in 2010. This is relatively lower than the 2.8% record of Bhutan from 2003-2008.

The Bhutan's Report on Analysis of Public Environment Expenditure of the Royal Government of Bhutan for the 9th Plan (2002-2008) also revealed the percentages of environmental expenditure against the GDP in the following countries and years:

Country	Year	Environmental Expenditure as % of GDP
Australia	1991	0.5
Canada	1991	0.7
Japan	1990	1.0
Germany	1992	0.9
Netherlands	1992	1.2
Switzerland	1992	1.0
U.S.A.	1992	0.7
United Kingdom	1990	0.4

The environmental expenditure has been increasing over the five-year period at an average annual growth rate of 34.36% (Table 3), higher than the total expenditure growth rate of 9.04%. The highest growth rate was in the agriculture and agrarian reform and in Year 2008. However, there was a decline of 21.76% in Year 2010.

Table 2. Summary of Environmental Expenditure (Year 2006-2010)

	In Thousand Pesos							% of Total
	2006	2007	2008	2009	2010	Five-Year Total	Annual Average	
Natural Resources and Environment	8,949,649	9,055,173	10,275,344	14,350,053	14,351,591	56,981,810	11,396,362	19.16
Water Resources Development and Flood Control	11,112,906	14,145,007	17,956,507	22,634,407	18,462,835	84,311,662	16,862,332.4	28.36
Power and Energy	2,640,680	5,828,012	2,138,087	12,887,453	2,437,158	25,931,390	5,186,278	8.72
Agriculture and Agrarian Reform	4,198,855	4,452,098	37,377,323	41,949,940	36,301,276	124,279,492	24,855,898.4	41.80
Housing and Community Development	231,290	257,079	274,421	360,032	309,639	1,432,461	286,492.2	0.48
General Administration	429,403	912,314	837,267	923,812	970,689	4,073,485	814,697	1.37
Other Economic Services	84,898	84,815	45,672	52,771	56,760	324,916	64,983.2	0.11
Total Environmental Expenditures	27,647,681	34,734,498	68,904,621	93,158,468	72,889,948	297,335,216	59,467,043.2	100
Total Expenditures	1,044,827,405	1,155,508,758	1,314,613,561	1,434,145,554	1,472,977,429	6,422,072,707	1,284,414,541.4	
% Over Total Expenditures	**2.65**	**3.01**	**5.24**	**6.50**	**4.95**	**4.63**	**4.63**	
Nominal GDP (in million pesos)	6,032,624.00	6,648,245.00	7,423,213.00	7,678,917.00	9,003,480.00	36,786,479,000	7,357,295,800	
Environmental Expenditure as % of GDP	0.46	0.52	0.93	1.21	0.81	0.81	0.81	

Table 3. Annual Growth Rate in Environment Expenditure

Nature of Environmental Expenditure	**Annual Growth Rate**				
	2007-2006	2008-2007	2009-2008	2010-2009	Annual Average
Natural Resources and Environment	1.18	13.47	39.66	0.01	13.58
Water Resources Development and Flood Control	27.28	26.95	26.05	(18.43)	15.46
Power and Energy	120.70	(63.31)	502.76	(81.09)	119.76
Agriculture and Agrarian Reform	6.03	739.54	12.23	(13.47)	186.09
Housing and Community Development	11.15	6.75	31.20	(14.00)	8.77
General Administration	112.46	(8.23)	10.34	5.07	29.91
Other Services	(0.10)	(46.15)	15.54	7.56	(5.79)
Total Environmental Expenditures	25.63	98.38	35.20	(21.76)	34.36
Total Expenditures	10.59	13.77	9.09	2.71	9.04

4.2 Economic Classification

When classified into object of expenditure, 72.4% was spent for current operating activities; the rest was for capital outlay. Maintenance and other operating expenses had the highest share of 49.81% (Table 4). Agriculture and agrarian reform had the highest share in MOOE (38.24%) and capital outlay (65.36%). The natural resources and environment had the highest share in personal services (39.60%).

Table 4. Total Environmental Expenditure for Five Years

Nature of Environmental Expenditure	Five-Year Total							
	PS		MOOE		CO		Total	%
Natural Resources and Environment	26,602,590.00	39.60	16,910,901.00	11.42	13,468,319.00	16.41	56,981,810.00	19.16
Water Resources Development and Flood Control	20,335,861.00	30.27	51,361,131.00	34.68	12,614,670.00	15.37	84,311,662.00	28.36
Power and Energy	3,547,767.00	5.28	21,534,677.00	14.54	848,946.00	1.03	25,931,390.00	8.72
Agriculture and Agrarian Reform	14,023,555.00	20.87	56,627,106.00	38.24	53,628,831.00	65.36	124,279,492.00	41.80
Housing and Community Development	854,573.00	1.27	544,033.00	0.37	33,855.00	0.04	1,432,461.00	0.48
General Administration	1,676,833.00	2.50	956,292.00	0.65	1,440,360.00	1.76	4,073,485.00	1.37
Other Services	140,221.00	0.21	166,695.00	0.11	18,000.00	0.02	324,916.00	0.11
Total Environmental Expenditures	67,181,400.00	100.00	148,100,835.00	100.00	82,052,981.00	100.00	297,335,216.00	100.00
Per cent of Distribution	22.59		49.81		27.60		100.00	

4.3 Institutional Classification

One interesting result of this study is the lower expenditure level of the primary environmental department when compared with other non-environmental department performing environmental functions. Table 5 shows that the DENR shared 16.80% only of the total environmental expenditures while the DA had 38.62% and the DPWH had 27.53%.

The DA is the principal agency responsible for the promotion of agricultural and fisheries development and growth as well as plant protection and extension services to make agriculture and fisheries, and agri-based enterprises profitable and to help spread the benefits of development to the poor, particularly those in the rural areas. DA's functions help in reducing the demand for natural resource extraction and encourage public activities toward resource conservation. The DPWH undertakes (a) the planning of

infrastructure, such as national roads and bridges, flood control, water resources projects and other public works, and (b) the design, construction, and maintenance of national roads and bridges, and major flood control systems. It is tasked to continuously develop its technology for the purpose of ensuring the safety of all infrastructure facilities and securing for all public works and highways the highest efficiency and quality in construction.

Table 5. Environmental Expenditure in Each Government Agency

Government Agencies	In Thousand Pesos							
	2006	2007	2008	2009	2010	Five-Year Total	Annual Average	% of Total
Department of Environment and Natural Resources								
Office of the Secretary	6,342,602	5,974,492	7,014,662	9,308,326	9,588,338	38,228,420	7,645,684.00	12.86
Environmental Management Bureau	388,269	373,476	434,077	478,774	620,647	2,295,243	459,048.60	0.77
Land Registration Authority			772,872	906,044		1,678,916	335,783.20	0.56
Mines and Geo-Sciences Bureau	540,378	510,360	568,148	594,665	655,910	2,869,461	573,892.20	0.97
NMRIA	392,059	994,266	1,128,379	1,001,765	827,075	4,343,544	868,708.80	1.46
National Water Resources Board	37,463	35,740	40,061	45,078	44,261	202,603	40,520.60	0.07
Palawan Council for Sustainable Development Staff	84,898	84,815	45,672	52,771	56,760	324,916	64,983.20	0.11
Sub-Total	**7,785,669**	**7,973,149**	**10,003,871**	**12,387,423**	**11,792,991**	**49,943,103**	**9,988,620.60**	**16.80**
Department of Science and Technology								
FPRDI	65,664	80,672	106,637	110,128	117,202	480,303	96,060.60	0.16
PNRI	104,363	112,896	157,619	153,210	154,006	682,094	136,418.80	0.23
PAG-ASA	346,647	418,477	713,664	712,281	789,404	2,980,473	596,094.60	1.00
PIVS	82,756	493,837	123,603	211,531	181,285	1,093,012	218,602.40	0.37
PCAFNRRD	246,560	342,176	344,156	458,886	318,593	1,710,371	342,074.20	0.58
PCAMRD	30,400	49,331	184,672	44,322	102,315	411,040	82,208.00	0.14
Sub-Total	**876,390**	**1,497,389**	**1,630,351**	**1,690,358**	**1,662,805**	**7,357,293**	**1,471,458.60**	**2.47**
Department of Agriculture								
Office of the Secretary	2,335,491	2,404,246	32,128,826	35,974,582	29,903,890	102,747,035	20,549,407.00	34.56
Bureau of Fisheries and Aquatic Resources	467,918	472,205	1,564,274	2,264,947	2,469,462	7,238,806	1,447,761.20	2.43
Philippine Center for Postharvest Development	55,138	57,705	89,346	676,991	150,426	1,029,606	205,921.20	0.35
Cotton Development Administration	44,911	43,690	49,302	48,389	53,580	239,872	47,974.40	0.08
Fertilizer and Pesticide Authority	37,530	41,922	71,070	81,065	53,373	284,960	56,992.00	0.10
Livestock Development Council	9,690	10,256	10,643	16,883	17,452	64,924	12,984.80	0.02
National Agriculture and Fishery Council	55,926	57,705	211,823	633,950	890,623	1,850,027	370,005.40	0.62
Philippine Carabao Center	28,257	29,761	117,463	503,298	707,215	1,385,994	277,198.80	0.47
Sub-Total	**3,034,861**	**3,117,490**	**34,242,747**	**40,200,105**	**34,246,021**	**114,841,224**	**22,968,244.80**	**38.62**
Department of Public Works and Highways								
Office of the Secretary	**11,075,443**	**13,808,867**	**17,916,446**	**20,631,856**	**18,415,872**	**81,848,484**	**16,369,696.80**	**27.53**
Department of Energy	790,227	1,818,774	823,322	3,078,197	987,830	7,498,350	1,499,670.00	2.52
Other Executive Offices						-	-	-
Pasig River Rehabilitation Commission	1,151,370	1,072,534	222,318	1,883,756	2,441,109	6,771,087	1,354,217.40	2.28

Government Agencies	In Thousand Pesos							
	2006	2007	2008	2009	2010	Five-Year Total	Annual Average	% of Total
Climate Change Commission					5,453	5,453	1,090.60	0.00
Energy Regulatory Commission	167,220	183,687	203,815	212,523	249,160	1,016,405	203,281.00	0.34
Housing and Land Use Regulatory Board	168,511	179,896	185,773	254,150	211,473	999,803	199,960.60	0.34
HUDCC	62,779	77,183	88,648	105,882	98,166	432,658	86,531.60	0.15
Sub-Total	1,549,880	1,513,300	700,554	2,456,311	3,005,361	9,225,406	1,845,081.20	3.10
Budgetary Support to Government Corporations								
Laguna Lake Development Authority	69,307	24,373	18,251	21,595	857	134,383	26,876.60	0.05
Natural Resource Development Corporations		25,000	10,000	45,000	95,000	175,000	35,000.00	0.06
National Electrification Administration	1,578,870	2,727,267	953,331	527,788	21,599	5,808,855	1,161,771.00	1.95
National Power Corporation	-	985,388	-	8,915,735	-	9,901,123	1,980,224.60	3.33
National Transmission Corporation					1,024,563	1,024,563	204,912.60	0.34
National Irrigation Administration	300,000	172,479	1,645,959			2,118,438	423,687.60	0.71
National Tobacco Administration	261,955	412,322	119,382	116,480	478,990	1,389,129	277,825.80	0.47
Philippine Coconut Authority	204,579	239,047	430,447	591,623	593,086	2,058,782	411,756.40	0.69
Philippine Crop Insurance Corporation	30,500	30,500	144,271	144,271	144,271	493,813	98,762.60	0.17
Philippine Rice Research Institute	90,000	88,753	265,689	394,253	418,000	1,256,695	251,339.00	0.42
Local Water Utilities Administration		300,400		1,957,473	2,702	2,260,575	452,115.00	0.76
Sub-Total	2,535,211	5,005,529	3,587,330	12,714,218	2,779,068	26,621,356	5,324,271.20	8.95
Grand Total	27,647,681	34,734,498	68,904,621	93,158,468	72,889,948	297,335,216	59,467,043.20	100

4.4 Environmental Domain Classification

Determining the expenditure for each environmental domain is problematic because of the lack of a system that could trace clearly to what specific domain certain amount of expenditure has been spent. The annual budget shows the expenditure level of the DENR, the primary environmental agency, not according to the specific domain but by offices, bureaus, and agencies. As a result, expenditure classification would be by government agency as shown above. Similarly, the expenditure in different non-environmental department like the DA, DPWH, and DOE could not be trace in terms of environmental domain. Thus, expenditure classification based on environmental domain was not part of this study.

4.5 Annual Environmental Expenditures

In terms of yearly average, the government appropriated P59.467 billion, 49.81% of which were in MOOE, 22.59% in PS, and 27.60% in capital outlay (Table 6). Clearly, the current operating expenditures consisting of PS and MOOE had the lion share of government spending.

The succeeding tables show the annual average of the expenditures classified by object and the government offices that undertake the functions related to environment.

Table 6. Annual Average Environmental Expenditure

Nature of Environmental Expenditure	Annual Average			
	PS	MOOE	CO	Total
Natural Resources and Environment	5,320,518.00	3,382,180.20	2,693,663.80	11,396,362.00
Water Resources Development and Flood Control	4,067,172.20	10,272,226.20	2,522,934.00	16,862,332.40
Power and Energy	709,553.40	4,306,935.40	169,789.20	5,186,278.00
Agriculture and Agrarian Reform	2,804,711.00	11,325,421.20	10,725,766.20	24,855,898.40
Housing and Community Development	170,914.60	108,806.60	6,771.00	286,492.20
General Administration	335,366.60	191,258.40	288,072.00	814,697.00
Other Services	28,044.20	33,339.00	3,600.00	64,983.20
Total Environmental Expenditures	13,436,280.00	29,620,167.00	16,410,596.20	59,467,043.20
Per cent of Distribution	22.59	49.81	27.60	100.00

Table 7. Annual Average Expenditure on Natural Resources and Environment Sector

Government Agency	Annual Average			
	PS	MOOE	CO	Total
Department of Environment and Natural Resources				
Office of the Secretary	4,202,164.40	2,233,968.20	1,209,551.40	7,645,684.00
Environmental Management Bureau	209,832.20	199,921.00	49,295.40	459,048.60
Land Registration Authority	234,869.00	90,702.00	10,212.20	335,783.20
Mines and Geo-Sciences Bureau	382,109.40	150,898.80	40,884.00	573,892.20
National Mapping and Resources Information Authority	222,596.20	532,299.20	113,813.40	868,708.80

Government Agency	Annual Average			
	PS	MOOE	CO	Total
Sub-Total	5,251,571.20	3,207,789.20	1,423,756.40	9,883,116.80
Other Executive Offices				
Pasig River Rehabilitation Commission	4,281.20	84,643.00	820,512.40	909,436.60
Climate Change Commission	1,090.60	-	-	1,090.60
Sub-Total	5,371.80	84,643.00	820,512.40	910,527.20
Department of Science and Technology				
Forest Products Research and Development Institute	61,766.60	25,955.00	8,339.00	96,060.60
Total-Department/Agencies	5,318,709.60	3,318,387.20	2,252,607.80	10,889,704.60
Budgetary Support to Government Corporations				
Laguna Lake Development Authority	-	26,876.60	-	26,876.60
Natural Resource Development Corporations	-	35,000.00	-	35,000.00
Other Special Purpose Funds				
Pasig River Rehabilitation Commission	1,808.40	1,916.40	441,056.00	444,780.80
Grand Total	5,320,518.00	3,382,180.20	2,693,663.80	11,396,362.00
Per cent of Distribution	46.69	29.68	23.64	100.00

Table 8. Annual Average Expenditure on Water Resources Development and Flood Control

Government Agency	Annual Average			
	PS	MOOE	CO	Total
Department of Public Works and Highways				
Office of the Secretary	4,037,646.80	10,261,760.60	2,070,289.40	16,369,696.80
Department of Environment and Natural Resources				
National Water Resources Board	29,525.40	9,925.20	1,070.00	40,520.60
Budgetary Support to Local Government				
Local Water Utilities		540.40	451,574.60	452,115.00

Government Agency	Annual Average			
	PS	MOOE	CO	Total
Administration				
Grand Total	4,067,172.20	10,272,226.20	2,522,934.00	16,862,332.40
Per cent of Distribution	23.42	61.38	15.20	100.00

Table 9. Annual Average Expenditure on Power and Energy

Government Agency	Annual Average			
	PS	MOOE	CO	Total
Department of Energy	192,737.40	1,169,544.00	137,388.60	1,499,670.00
Department of Science and Technology				
Philippine Nuclear Research Institute	79,313.40	43,189.00	13,916.40	136,418.80
Other Executive Offices				
Energy Regulatory Commission	121,728.60	63,068.20	18,484.20	203,281.00
Budgetary Support to Government Corporations				
National Electrification Administration	315,774.00	845,997.00	-	1,161,771.00
National Power Corporation	-	1,980,224.60	-	1,980,224.60
National Transmission Corporation	-	204,912.60	-	204,912.60
Grand Total	709,553.40	4,306,935.40	169,789.20	5,186,278.00
Per cent of Distribution	13.95	81.72	4.33	100.00

Table 10. Annual Average Expenditure on Agriculture and Agrarian Reform

Government Agency	Annual Average			
	PS	MOOE	CO	Total
Department of Agriculture				
Office of the Secretary	2,138,884.20	8,332,996.60	10,077,526.20	20,549,407.00
Bureau of Fisheries and Aquatic Resources	348,402.60	808,449.40	290,909.20	1,447,761.20
Philippine	57,274.40	142,290.00	6,356.80	205,921.20

Government Agency	Annual Average			
	PS	MOOE	CO	Total
Center for Postharvest Development				
Cotton Development Administration	41,596.40	6,378.00	-	47,974.40
Fertilizer and Pesticide Authority	26,356.80	17,170.80	13,464.40	56,992.00
Livestock Development Council	8,813.00	4,081.60	90.20	12,984.80
National Agriculture and Fishery Council	40,952.40	169,713.00	159,340.00	370,005.40
Philippine Carabao Center	47,589.60	81,673.00	147,936.20	277,198.80
Sub-total	2,709,869.40	9,562,752.40	10,695,623.00	22,968,244.80
Department of Science and Technology				
PCAFNRRD	78,461.80	259,709.20	3,903.20	342,074.20
PCAMRD	16,379.80	63,988.20	1,840.00	82,208.00
Sub-total	94,841.60	323,697.40	5,743.20	424,282.20
Budgetary Support to Government Corporations				
National Irrigation Administration	-	423,687.60	-	423,687.60
National Tobacco Administration	-	277,825.80	-	277,825.80
Philippine Coconut Authority	-	411,756.40	-	411,756.40
Philippine Crop Insurance Corporation	-	74,362.60	24,400.00	98,762.60
Philippine Rice Research Institute	-	251,339.00	-	251,339.00
Sub-total	-	1,438,971.40	24,400.00	1,463,371.40
Grand Total	2,804,711.00	11,325,421.20	10,725,766.20	24,855,898.40
Per cent of Distribution	21.78	44.50	33.73	100.00

Table 11. Annual Average Expenditure on Housing and Community Development

Government Agency	Annual Average			
	PS	MOOE	CO	Total
Other Executive Offices				
Housing and Land Use Regulatory Board	139,160.00	57,257.40	3,543.20	199,960.60
HUDCC	31,754.60	51,549.20	3,227.80	86,531.60
Grand Total	170,914.60	108,806.60	6,771.00	286,492.20
Per cent of Distribution	59.34	38.48	2.19	100.00

Table 12. Annual Average Expenditure on General Administration

Government Agency	Annual Average			
	PS	MOOE	CO	Total
Department of Science and Technology				
PAG-ASA	271,998.80	152,167.20	171,928.60	596,094.60
Philippine Institute of Volcanology and Seismology	63,367.80	39,091.20	116,143.40	218,602.40
Grand Total	335,366.60	191,258.40	288,072.00	814,697.00
Per cent of Distribution	39.13	23.13	37.74	100.00

Table 13. Annual Average Expenditure on Other Services

	Annual Average			
	PS	MOOE	CO	Total
Palawan Council for Sustainable Development Staff	28,044.20	33,339.00	3,600.00	64,983.20
Per cent of Distribution	47.79	49.24	2.97	100.00

4.6 Local Government Experience

The environmental expenditures of both provinces and cities in Year 2009 and 2010 were analysed based on the data from the Bureau of Local Government Finance (BLGF) of the Department of Finance.

A total of 68 province in 2009 and 65 in 2010, representing 83.13% of the 80 provinces and 95 cities in 2009 and 94 cities in 2010, representing 68.48% of the 138 cities in the data-bank of the BLGF had data on total expenditures and environmental expenditures (Table 14).

Table 14. Number of Provinces and Cities with Expenditure Data

	2010	2009	Total	% of Total
Provinces	65	68	133	83.13
Cities	94	95	189	68.48
Total	159	163	322	73.85

Overall, provinces spent 1.41% of the total expenditures on environmental activities while cities 2.44% (Table 15 and 16). There has been a slight increase in the 2010 environmental expenditure share when compared to that of 2009 in both provinces and cities.

Table 15. Environmental Expenditures as Percentage of Total Expenditures in Provinces

	2010	2009	Total
Environmental Expenditures	778,836,640.80	713,829,866.17	1,492,666,506.97
Total Expenditures	52,807,199,564.16	52,709,003,104.83	105,516,202,668.99
%	1.47	1.35	1.41

Table 16. Environmental Expenditures as Percentage of Total Expenditures in Cities

	2010	2009	Total
Environmental Expenditures	1,815,281,303.55	1,603,234,902.52	3,418,516,206.07
Total Expenditures	67,999,519,028.81	72,287,369,146.54	140,286,888,175.35
%	2.67	2.22	2.44

The following expense items were considered as environmental expenditures: (a) demonstration farms and nurseries; (b) irrigation system; (c) veterinary services; (d) environment and natural resources; (e) operation of waterworks; and (f) agricultural development projects.

In provinces, the veterinary services and the environment and natural resources had the biggest share of 55.70% and 40.59%, respectively (Table

17). The expenditures for these activities are spent by the Office of the Provincial Veterinarian and the Provincial Environment and Natural Resources Office.

In the cities, the City Environment and Natural Resources Office had the biggest share of 73.37% followed by the Office of the City Veterinarian with 16.79%.

Table 17. Breakdown of Environmental Expenditures in Provinces

Environmental Activities	2010	2009	Average
Demonstration Farms and Nurseries	0.93	0.68	0.81
Irrigation System	0.22	0.94	0.57
Veterinary Services	54.58	56.91	55.70
Environment and Natural Resources	41.54	39.56	40.59
Operation of Waterworks	0.47	0.84	0.65
Agricultural Development	2.26	1.07	1.69
Total	100	100	

Table 18. Breakdown of Environmental Expenditures in Cities

Environmental Activities	2010	2009	Average
Demonstration Farms and Nurseries	0	0.02	0.01
Quality Control of Agricultural Products	0.02	0	0.01
Irrigation System	1.28	1.05	1.17
Veterinary Services	15.79	17.93	16.79
Environment and Natural Resources	71.51	75.47	73.37
Operation of Waterworks	11.31	5.11	8.40
Agricultural Development	0.08	0.41	0.24
Total	100	100	

The details of the local government expenditures are shown in the Appendices Tables.

5.0 Environmental and Poverty Outcomes Analysis

Environmental expenditures are expected to translate into improvements in the environmental conditions of the nation. Such improvements can be seen in the accomplishments of offices and agencies that are engaged in environmental activities and for whom the expenditures were appropriated.

5.1 Achievement of the MTDP Targets on Environment

This study uses the accomplishment report presented in the Updated Medium-Term Philippine Development Plan (2004-2010) which had five major thrusts:

1. Sustainable and more productive use of natural resources to promote investments and entrepreneurships;

2. Sustainable mining that adhere to the principles of sustainable development, economic growth, environmental protection, and social equity;

3. Protection of vulnerable and ecologically fragile areas, especially watersheds and areas where biodiversity is threatened;

4. Creation of a healthier environment for the population; and

5. Mitigating the occurrence of natural disasters to prevent the loss of lives and properties.

To assess the progress of environmental outcomes along the five thrusts, 84 quantifiable targets were compared against the accomplishments from 2004-2008. Overall, there are notable achievements along the five major thrusts.

In the sustainability and productive use of natural resources five of the 19 measurable outputs had accomplishments that exceed the target as of 2008 (Table 19). The most notable achievements are in surveying and mapping of the Philippine waters, establishment of wildlife farms, and industrial forest management agreement.

Clearly, the accomplishments on corporate and community-based activities for agro-forestry fell way behind the targets—an indication that more efforts should be exerted by the concerned national government agency. In addition, the densification of the Philippine Reference System geodetic and control points, the community-based forest management agreement, and the socialized industrial forest management agreement also require more efforts.

Table 19. Environment and Natural Resources Accomplishments for Year 2004-2008 on the Sustainable and Productive Use of Natural Resources

Measurable Output and Target	Target	Actual Accomplishment	Per cent of Accomplishment
Number of square kilometers of Philippine waters surveyed and mapped	540	230,407	42,668
Densification of the Philippine Reference System geodetic and control points			
Number of provinces covered	24	42	175
Number of control points established	79,585	6,221	8
Number of barangays covered	26,500	1,661	6
Ground validation or verification of forestland boundaries conducted and legislation of permanent forest lines passed			
Number of kilometres covered	76,291	15,674	21
Number of provinces covered	74	19	26
Number of hectares of lands through land patents prioritized	760,080	410,824	58
Number of hectares of production forestland assessed	7,300,000	701,821	10
Number of hectares of unclassified lands completed for survey and classification	587,238	141,578	24
Number of hectares inventoried and managed	74,200	5,080	7
Number of wildlife farms established	15	110	733
Number of Clean Development Mechanism projects implemented	10	14	140
Number of sites covered by Community-Based Forest Management Agreement	4,111	128	3
Number of hectares covered by Industrial Forest Management Agreement	121,604	250,435	206
Number of hectares covered by Socialized Industrial Forest Management Agreement	79,785	6,175	8
Corporate and community-based economic activities covering 1.8 million hectares for agro forestry			
Number of hectares under Community-Based Forest Management Agreement	618,000	7,573	1
Number of hectares under Industrial Forest Management Agreement	235,898	9,573	4
Number of hectares under Socialized Industrial Forest Management Agreement	47,971	576	1
Number of hectares under Timber License Agreement	159,516	4,844	3
Taken from the Updated Medium-Term Development Plan for 2004-2010			

In promoting sustainable mining, the initiatives entailed conducting investment forum and assessing abandoned mines, where the environmental agencies performed within the targets (Table 20). It is noticeable, however, that only an insignificant amount of investment and employment were generated. This implies the meagre results derived from investment and employment generation activities.

Table 20. Environment and Natural Resources Accomplishments for Year 2004-2008 on the Promotion of Sustainable Mining

Measurable Output and Target	Target	Actual Accomplishment	Per cent of Accomplishment
Amount of US dollar investments generated	4 billion to 6 billion	879.07	15
Number of new jobs (direct and indirect employment) generated	239,000	69,888	29
Number of investors forum conducted	3	3	100
Number of abandoned mines assessed	7	7	100
Taken from the Updated Medium-Term Development Plan for 2004-2010			

The accomplishments on the protection of vulnerable and ecologically fragile areas were relatively modest, except in the number of wetlands managed (603%) and number of local government units assisted on coastal protection and management (123%).

As shown in Table 21, much is needed to improve the performance on mangrove replanting (20%), proclamation of protected areas (14%), legislation on protected areas (1.94%), and critical watersheds reforested (17%).

Table 21. Environment and Natural Resources Accomplishments for Year 2004-2008 on the Protection of Vulnerable and Ecologically Fragile Areas

Measurable Output and Target	Target	Actual Accomplishment	Per cent of Accomplishment
Number of wetlands managed	39	235	603
Number of local government units assisted on coastal protection and management, especially participatory planning, zoning and standard-setting	570	702	123
Number of hectares covered in mangrove replanting	10,500	2,067	20
Number of marine sanctuaries established	128	77	60
Number of coastal alliances (with non-government and communities) established and sustained	14	14	100

Measurable Output and Target	Target	Actual Accomplishment	Per cent of Accomplishment
Proclamation of protected areas especially those that are critical watersheds and habitat for highly endangered species			
Number of protected areas for proclamation	100	14	14
Number of protected areas for legislation	103	2	1.94
Number of caves assessed and classified	57	53	93
Number of hectares in critical watersheds reforested	130,000	22,046	17
Number of protected areas covered by zoning to delineate areas suitable for development	77	29	38
Number of protected areas where ecotourism were included in the National Ecotourism Master Plan	29	32	110
Number of studies on carrying capacity of protected areas conducted especially those that would host development projects	29	14	48
Number of hectares of forests protected in coordination with other sectors	15.24 million	9.4 million	62
Taken from the Updated Medium-Term Development Plan for 2004-2010			

The most significant achievement in creating a healthier environment for the population is roadside planting where the target kilometres were accomplished by 892% (Table 22). The areas needing more attention include reduction on air pollution in major urban centers (20%), establishment of airsheds (39%), establishment of min-forests (16%), and assessment of ground water resources and vulnerability in local government units (35%).

Table 22. Environment and Natural Resources Accomplishments for Year 2004-2008 on the Creation of Healthier Environment for the Population

Measurable Output and Target	Target	Actual Accomplishment	Per cent of Accomplishment
Number of hazardous waste generators registered	3,900	4,157	106
Number of companies using cyanide, mercury, asbestos, and other highly toxic chemicals like Polychlorinated Biphenyls closely monitored	500	637	128
Number of bathing areas covered by water analysis and monitoring	162	212	43

Measurable Output and Target	Target	Actual Accomplishment	Per cent of Accomplishment
Number of principal water bodies that are reclassified	202	116	57
Percentage of reduction on air pollution in major urban centers	42	12	29
Number of airsheds established nationwide	23	9	39
Number of mini-forests established	1,370	225	16
Number of kilometres of roadside planting	612	5,432	892
Number of sanitation facilities constructed	74	31	42
Number of local government units where groundwater resources and vulnerability assessment was conducted	310	109	35
Number of poor communities where drinking water was monitored and improved	320	339	106
Number of disposal sites where geological assessment was conducted	200	252	126
Number of cluster sanitary landfill sites with materials recovery facilities opened or established	4	5	125
Number of major esteros in urban centers that were cleaned and rehabilitated	32	23	66
Taken from the Updated Medium-Term Development Plan for 2004-2010			

The accomplishment on mitigating the occurrence of natural disasters was beyond target with respect to the production or completion of geo-hazard maps (Table 23).

Table 23. Environment and Natural Resources Accomplishments for Year 2004-2008 on the Mitigation of Occurrence of Natural Disasters

Measurable Output and Target	Target	Actual Accomplishment	Per cent of Accomplishment
Number of geo-hazard maps produced or completed	290	477	164
Taken from the Updated Medium-Term Development Plan for 2004-2010			

5.2 Significant DENR Accomplishments

In addition to the performance shown in the Updated MTDP, the DENR also cited the following accomplishments for Year 2010 and 2011: (a) reduction in air pollution, (b) improvement in water quality, (c) enhancement of solid waste management, (d) implementation of the total log ban in natural resources, (e) launching of the national greening program, (f) introduction of significant mining reforms; and (g) climate change adaptation and mitigation.

Reduction in Air Pollution. Air pollution is measured in terms of the amount of dust particles in air otherwise known as Total Suspended Particulate (TSP). TSPs are small solid or liquid particles suspended in air that come from diesel vehicles and coal-burning power plants. Dust is also a major source of TSP especially during dry months and can come from unpaved roads and construction activities.

The Environmental Management Bureau of the DENR reported in September 2010 that the air quality of Metro Manila was improving from 2004 to 2007 (**http://www.malaya.com.ph/09142010/news11.html**). However, it cited that the situation worsened in year 2008, as shown below:

Year	Micrograms per Normal Cubic Meter
2004	160
2005	154
2006	142
2007	132
2008	138
2009	134

The bureau also cited that the TSP in the metropolis in the second quarter of 2010 was at an average of 139 micrograms of pollutants per normal cubic meter, which is 48 percent above the standard of 90 micrograms. The stretch of the Epifanio de los Santos Avenue has the dirtiest air, which recorded 283 micrograms per normal cubic meter. The rise could be attributed to an increase in the number of motor vehicles and their poor maintenance.

The recent report of the DENR shows that the TSP as of the third quarter of 2011 was pegged at 112.

Improvement in Water Quality. The average biological oxygen demand (BOD) for 19 rivers in the country as of 2009 was 27 milligrams per liter (mg/L) or four times the standard of 7 mg/L. This standard is considered to be level where water is healthy. In 2010, The DENR engaged in a massive clean-up of drainage canals and polluted rivers through a public-private partnership. These resulted in water quality improvements in 19 priority rivers, six of whom have recorded biological oxygen demand levels that are complying with the standard. There are also 208 companies which adopted esteros and waterways for their respective cleaning activities.

Enhancement of the Solid Waste Management. Efforts were made to require the Philippine Plastic Industry Association to develop a program where companies would retrieve and collect plastics along waterways and dumpsites for recycling. The "Reusable Bag Campaign for Greener Environment" has been launched in a number of supermarkets nationwide and a number of subdivisions and condominiums have established solid waste management system to ensure segregation of wastes at source and during garbage collections. The number of companies participating in these initiatives continues to increase over time.

Nationwide Implementation of Total Log Ban in Natural Forests. This initiative resulted in the confiscation of a large amount of illegally-cut logs and the filing of illegal cases in court, estimated at 10.3 million board feet and valued at P313 million. Over 200 wood processing plants have also been closed.

Implementation of the National Greening Program. This program is not only about reforestation but also food security and poverty alleviation. The DENR reported that as of end of 2011, more than 50 million trees have been planted in 100,000 hectares. As of June of that year, 27.3 million seedlings have also been produced.

Significant Mining Reforms. As the Philippines is endowed with gold, nickel, copper, and chromite, nine million hectares, representing 30% of the land area, have high potential for mineral resources. However, only 4.7% of the high potential areas have mining permits. Thus, the DENR undertook a cleansing process of "use it or lose it" policy. This resulted in the denial of 1,606 idle mining applications and the opening of 5.2 hectares to new and serious investors.

Climate Change Adaptation and Mitigation. While the Philippines contributes little to global warming and climate change, it is one of the countries worldwide that is most vulnerable to the impact of climate change. This is attributed to its geophysical locations and the country's geologic attributes that make it prone to typhoons, floods, landslides, and tsunami. One major accomplishment in this area is the geo-hazard mapping of provinces, cities, and municipalities. The geo-hazard maps indicated the places that are prone to floods, landslides, and other disasters. A total of 65,000 map sheets have been distributed to local government units and the corresponding capacity building of the local officials has been conducted. In addition, geo-hazard assessment has been conducted in 46 coastal municipalities and vulnerability and carrying capacity assessment has been completed in 55 watersheds.

5.3 Poverty Outcomes Analysis

This part of the study seeks to find out whether environmental outcomes translate to poverty reduction. Understandably, environmental problems exacerbate poverty. In the same vein, environmental initiatives should improve poverty situations.

The ideal framework of a poverty-environment study is to find out whether the environmental expenditures lead to environmental outcomes and whether these

outcomes translate into poverty reduction. The problem earlier noted on the lack of a common definition of environment expenditures in the Philippines is a bottleneck in coming up with a more reliable and relevant study to relate environmental expenditures with poverty reduction. Similarly, the difficulty in classifying expenditures according to the environmental domains correspondingly led to some problems in determining the environmental outcomes as a result of government spending. Finally, the disjoint among data sources in the government bureaucracy as experienced in the gathering of expenditures data in this study made it difficult to reliably quantify spending against outcomes. This study, therefore, is exploratory in the sense that it merely attempts to identify certain poverty reduction gains that are derived from environmental expenditures.

Poverty remains the most critical social problem that needs to be addressed in the country. According to the data from the National Statistical Coordination Board, more than one-quarter (26.5%) of the population falls below the poverty line in 2009. While this figure is much lower than the 33.1% in 1991, the decline has been slow and uneven. For instance, neighboring countries like Indonesia has 8.5% and Vietnam has 13.5%. This shows that poverty incidence poverty has remained significantly high as compared to other countries.

In the Philippines, poverty is measured using three methods: (a) income computation based on the official criteria of the government; (b) expenditure as used by the World Bank; and (c) access to minimum basic infrastructure as applied by the National Statistics Office.

This study focuses on the implications of environmental spending on three aspects of poverty reduction: (a) enhancing livelihood security; (b) reduce health risks; and (c) reduce vulnerability.

Enhancing Livelihood Security. How could environmental expenditures enhance the livelihood security in the country? Earlier mentioned in the report is the National Greening Program, underscored to be not only about reforestation but also food security and poverty alleviation. The intent of this program is to make it agro-forestry, where trees to be planted outside the protected areas will be turned over to the host communities and seedling production, procurement, and maintenance will also be undertaken by the people in the community. In essence, the greening program also provides livelihood. The community-based resource management spearheaded by DENR seeks to develop viable and sustainable livelihood. Its initiative on Sustainable Livelihood Options for the Philippines contains guides for communities and persons to engage in livelihood or income-generating activities in three ecosystems: upland, urban-lowland, and coastal.

One agency whose expenditures are considered environmentally beneficial is the Department of Agriculture which is directly involved in improving agricultural practices and farming systems. Essentially the improvement in farming systems could lead to reduction in environmental problems such as soil erosion, ground water contamination, pest problems, biodiversity loss, and the like. The programs of the DA places priority on poverty reduction through (a) support to rural

enterprises and cooperatives; (b) construction of farm-to-market roads; (c) access to land, finance, and technology for the farmers and indigenous people; (d) reduction of interferences by the middleman in the marketing process for farmers and fisherfolks; and (e) timely and efficient support in the event of natural disasters and economic crisis.

The provision of water supply and electric power also helps in enhancing the security of the poor's sources of living.

Reducing Health Risks. According to World Bank report in 2007, air pollution is a major cause of respiratory and cardiovascular diseases, costing the country P7.6 billion annually. About 18 million Filipinos are exposed to air pollution. The World Bank report is bolstered by a study of the University of the Philippines College of Medicine which showed that more than 50 percent of the medicines sold in the country are for respiratory ailments. In terms of water-borne diseases, the country loses about P6.7 billion per year in terms of medicine and loss of income and tourism opportunities.

Reducing Vulnerability. Vulnerabilty to unpredictable events is a key concern of the poor. This includes the susceptibility to loss of property and the insecurity to recover from risks that entail environmental hazards and environment-related conflicts. Thus, efforts of the national government that deal with resource management such as those espoused by the Department of Agriculture on coastal resources could mitigate the vulnerable conditions of the poor. The creation of a government agency that primarily takes charge of the climate change is a move towards mitigating the impact of climate change on people. Providing people with coping mechanisms is also a result of the spending intended to reduce vulnerability of people to environmental hazards.

6.0 Recommendations for Improving Public Environmental Expenditure Management

The study found out that analysing the government spending on the environment is problematic in the absence of a clear definition of environment expenditure and the absence of details in the national government's annual budget. But it is more problematic to link environmental expenditure with environmental outcomes in the absence of an accounting system that keeps tract of which spending has been used for which environmental programs and projects. The problem has become more pronounced in the absence of the specific environmental domains that absorb the disbursements taken from the national budget.

The analysis revealed that the primary environmental agency takes lesser amount of funds compared with other non-environmental departments performing environmental functions. This is particularly true in the case of the Department of Agriculture which is in charge of agricultural development and improving productivity. Thus, measures should be undertaken to clearly delineate the environmental functions and reassess scoping of primary environmental concerns among national government agencies.

6.1 Immediate Actions for the National Government

To improve the management of environmental expenditure in the Philippine bureaucracy, the national government should have concerted efforts to undertake the following:

a. Establish an inter-agency task force that will come up with a common definition of environmental accounting as applied to the national government thrusts and development plans. Such definition should consider the classification of environmental domains.

b. Require the identification and description of environmental domains and functions to be addressed in the government plans and programs as the basis of appropriating funds in the annual budget.

c. Develop from the current budgeting system and accounting system a parallel enumeration of expense items to be treated as environmental expenditure. Such itemization should be integrated in the recording and reporting systems of both the budget and accounting units of each government agency.

d. Enhance the financial reporting system to include a periodic report on the environmental spending of the government—both national and

local. The financial report should classify expenses according to environmental domains.

6.2 Medium-Term Strategies for the National Government

a. Establish benchmarks for the budgeting of environmental expenditures based on measurable indicators in order to level up the appropriations for the environment.

b. Link environmental outcomes with poverty reduction by encouraging collaboration between and among government agencies.

c. Mainstream environmental accounting in both national and local government

APPENDIX TABLES

Appendix Table 1. Five-Year Total Expenditure on Natural Resources and Environment

Government Agency	Five-Year Total			
	PS	MOOE	CO	Total
Department of Environment and Natural Resources				
Office of the Secretary	21,010,822.00	11,169,841.00	6,047,757.00	38,228,420.00
Environmental Management Bureau	1,049,161.00	999,605.00	246,477.00	2,295,243.00
Land Registration Authority	1,174,345.00	453,510.00	51,061.00	1,678,916.00
Mines and Geo-Sciences Bureau	1,910,547.00	754,494.00	204,420.00	2,869,461.00
National Mapping and Resources Information Authority	1,112,981.00	2,661,496.00	569,067.00	4,343,544.00
Sub-Total	26,257,856.00	16,038,946.00	7,118,782.00	49,415,584.00
Other Executive Offices				
Pasig River Rehabilitation Commission	21,406.00	423,215.00	4,102,562.00	4,547,183.00
Climate Change Commission	5,453.00	-	-	5,453.00
Sub-Total	26,859.00	423,215.00	4,102,562.00	4,552,636.00
Department of Science and Technology				
Forest Products Research and Development Institute	308,833.00	129,775.00	41,695.00	480,303.00
Total-Department/Agencies	26,593,548.00	16,591,936.00	11,263,039.00	54,448,523.00
Budgetary Support to Government Corporations				
Laguna Lake Development Authority	-	134,383.00	-	134,383.00
Natural Resource Development Corporations	-	175,000.00	-	175,000.00
Other Special Purpose Funds				
Pasig River Rehabilitation Commission	9,042.00	9,582.00	2,205,280.00	2,223,904.00
Grand Total	26,602,590.00	16,910,901.00	13,468,319.00	56,981,810.00
Per cent of Distribution	46.69	29.68	23.64	100.00

Appendix Table 2. Five-Year Total Expenditure on Water Resources Development and Flood Control

Government Agency	Five-Year Total			
	PS	MOOE	CO	Total
Department of Public Works and Highways				
Office of the Secretary	20,188,234.00	51,308,803.00	10,351,447.00	81,848,484.00

Government Agency	Five-Year Total			
	PS	MOOE	CO	Total
Department of Environment and Natural Resources				
National Water Resources Board	147,627.00	49,626.00	5,350.00	202,603.00
Budgetary Support to Local Government				
Local Water Utilities Administration	-	2,702.00	2,257,873.00	2,260,575.00
Grand Total	20,335,861.00	51,361,131.00	12,614,670.00	84,311,662.00
Per cent of Distribution	25.31	62.03	12.67	100.00

Appendix Table 3. Five-Year Total Expenditure on Power and Energy

Government Agency	Five-Year Total			
	PS	MOOE	CO	Total
Department of Energy	963,687.00	5,847,720.00	686,943.00	7,498,350.00
Department of Science and Technology				
Philippine Nuclear Research Institute	396,567.00	215,945.00	69,582.00	682,094.00
Other Executive Offices				
Energy Regulatory Commission	608,643.00	315,341.00	92,421.00	1,016,405.00
Budgetary Support to Government Corporations				
National Electrification Administration	1,578,870.00	4,229,985.00	-	5,808,855.00
National Power Corporation	-	9,901,123.00	-	9,901,123.00
National Transmission Corporation	-	1,024,563.00	-	1,024,563.00
Grand Total	3,547,767.00	21,534,677.00	848,946.00	25,931,390.00
Per cent of Distribution	23.85	72.44	3.71	100.00

Appendix Table 4. Five-Year Total Expenditure on Agriculture and Agrarian Reform

Government Agency	Five-Year Total			
	PS	MOOE	CO	Total
Department of Agriculture				
Office of the Secretary	10,694,421.00	41,664,983.00	50,387,631.00	102,747,035.00
Bureau of Fisheries and Aquatic Resources	1,742,013.00	4,042,247.00	1,454,546.00	7,238,806.00
Philippine Center for Postharvest Development	286,372.00	711,450.00	31,784.00	1,029,606.00
Cotton Development Administration	207,982.00	31,890.00	-	239,872.00
Fertilizer and Pesticide Authority	131,784.00	85,854.00	67,322.00	284,960.00
Livestock Development Council	44,065.00	20,408.00	451.00	64,924.00
National Agriculture and Fishery Council	204,762.00	848,565.00	796,700.00	1,850,027.00
Philippine Carabao Center	237,948.00	408,365.00	739,681.00	1,385,994.00
Sub-total	13,549,347.00	47,813,762.00	53,478,115.00	114,841,224.00
Department of Science and Technology				
PCAFNRRD	392,309.00	1,298,546.00	19,516.00	1,710,371.00
PCAMRD	81,899.00	319,941.00	9,200.00	411,040.00
Sub-total	474,208.00	1,618,487.00	28,716.00	2,121,411.00
Budgetary Support to Government Corporations				
National Irrigation Administration	-	2,118,438.00	-	2,118,438.00
National Tobacco Administration	-	1,389,129.00	-	1,389,129.00
Philippine Coconut Authority	-	2,058,782.00	-	2,058,782.00
Philippine Crop Insurance Corporation	-	371,813.00	122,000.00	493,813.00
Philippine Rice Research Institute	-	1,256,695.00	-	1,256,695.00
Sub-total	-	7,194,857.00	122,000.00	7,316,857.00
Grand Total	14,023,555.00	56,627,106.00	53,628,831.00	124,279,492.00
Per cent of Distribution	27.93	43.81	28.26	100.00

Appendix Table 5. Five-Year Total Expenditure on Housing and Community Development

Government Agency	Five-Year Total			
	PS	MOOE	CO	Total
Other Executive Offices				
Housing and Land Use Regulatory Board	695,800.00	286,287.00	17,716.00	999,803.00
HUDCC	158,773.00	257,746.00	16,139.00	432,658.00
Grand Total	854,573.00	544,033.00	33,855.00	1,432,461.00
Per cent of Distribution	60.02	37.84	2.14	100.00

Appendix Table 6. Five-Year Total Expenditure on General Administration

Government Agency	Five-Year Total			
	PS	MOOE	CO	Total
Department of Science and Technology				
PAG-ASA	1,359,994.00	760,836.00	859,643.00	2,980,473.00
Philippine Institute of Volcanology and Seismology	316,839.00	195,456.00	580,717.00	1,093,012.00
Grand Total	1,676,833.00	956,292.00	1,440,360.00	4,073,485.00
Per cent of Distribution	44.48	23.75	31.78	100.00