

# **Profile on Environmental and Social Considerations in Philippines**

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## Abbreviation List

AAC	Awards and Arbitration Committee
AC	Appraisal Committee
ADB	Asia Development Bank
ADO	Ancestral Domains Office
ADSDPP	Ancestral Domain Sustainable Development and Protection Plans
ARMM	Autonomous Region in Muslim Mindanao
BIR	Bureau of Internal Revenue
BOD	Biochemical Oxygen Demand
CADC	Certificate of Ancestral Domain Claim
CADT	Certificate of Ancestral Domain Title
CALT	Certificate of Ancestral Land Title
CAR	Cordillera Administrative Region
CARP	Comprehensive Agrarian Reform Program
CAS	Country Assistance Strategy
CBD	Convention on Biological Diversity
CBFM	Community-Based Forest Management
CBFMA	Community-based Forest Management Agreement
CCA	Consultative Community Assembly
CCC	Climate Change Commission
CCO	Chemical Control Order
CDM	Clean Development Mechanism
CDO	Cease and Desist Order
CE	Critically Endangered
CEC	Certificate of Emission Compliance
CEDAW	Committee on the Elimination of Discrimination against Women
CENRO	Community Environment and Natural Resources Office
CER	Certified Emission Reductions
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMR	Compliance Monitoring Report
CMVR	Compliance Monitoring and Validation Report
CNC	Certificate of Non-Coverage
CNO	Certificate of Non-Overlap
CP	Certificate Precondition
CPAs	Conservation Priority Areas
CR	Critically Endangered
CSP	Country Strategy and Program

CT	Conservation International
CWC	The Council for the Welfare of Children
DA	Department of Agriculture
DADT	Certificate of Ancestral Domain Title
DALT	Certificate of Ancestral Lands Title
DAO	DENR Administrative Order
DAR	Department of Agrarian Reform
DENR	Department of Environment and Natural Resources
DENR-RO	DENR Regional Office
DEO	District Engineering Office
DNA	Designated National Authority
DO	Dissolved Oxygen
DOE	Department of Energy
DOF	Department of Finance
DOH	Department of Health
DOLE	Department of Labor and Employment
DOST	Department of Science and Technology
DOT	Department of Tourism
DOTC	Department of Transportation and Communication
DPWH	Department of Public Works and Highways
DSWD	Department of Social Welfare and Development
DTI	Department of Trade and Industry
ECA	Environmentally-Critical Area
ECC	Environmental Compliance Certificate
ECP	Environmentally-Critical Project
ECRSC	EIA Coverage and Requirements Screening Checklist
EGGAR	Engineering Geological Assessment Report
EIAMD	Environmental Impact Assessment and Management Division
EIARC	Environmental Impact Assessment Review Committee
EIS	Environmental Impact Statement
ELAC	Environmental Legal Assistance Center
EMA	External Monitoring Agent
EMB	Environmental Management Bureau
EMMoP	Environmental Management and Monitoring Plan
EMP	Environmental Management Plan
EN	Endangered
EO	Executive Order
EPRMP	Environmental Performance Report and Management Plan

ERDB	Ecosystems Research and Development Bureau
ESSC	Environmental Science for Social Change
ESSO	Environmental and Social Office
FAO	Finance and Administrative Office
FBI	Field Based Investigation
FMB	Forest Management Bureau
FPE	Foundation for the Philippine Environment
FPIC	Free Prior Informed Consent
GAD	Gender and Development
GAR	Geohazard Assessment Report
GEM	Gender Empowerment Measure
GIR	Geological Identification Report
GTZ	Gesellschaft für Technische Zusammenarbeit
HDI	Human Development Index
HUC	Highly Urbanized City
HUDCC	Housing and Urban Development Coordinating Council
IAC	Inter-agency Committee
IACCC	Inter-Agency Committee on Climate Change
IAWG	Inter-Agency Working Group
IBAs	Important Bird Areas
ICC	Independent Component City
ICCs	Indigenous Cultural Communities
IEC	Information, Education and Communication
IEE	Initial Environmental Examination
IEEC	Initial Environmental Examination Checklist
IEER	Initial Environmental Examination Report
IFMA	Integrated Forest Management Agreement
ILA	Independent Land Appraisal
ILO	International Labour Organization
IMP	Impacts Management Plan
IO	Implementing Office
IPAP	Indigenous Peoples Action Plan
IPCC	Intergovernmental Panel on Climate Change
IPDF	Indigenous Peoples Development Framework
IPP	Indigenous Peoples Plan
IPRA	Indigenous Peoples Rights Act
IPs	Indigenous Peoples
IROW	Infrastructure Right-of-Way

IUCN	The World Convention Union
IWRM	The Integrated Water Resources Management
KALAHI	Kapit-Bisig Laban sa Kahirapan
KBAs	Key Biodiversity Areas
LAO	Legal Affairs Office
LAPRAP	Land Acquisition Plan and Resettlement Action Plan
LC	Least Concern
LGU	Local Government Unit
LLDA	Laguna Lake Development Authority
LMB	Lands Management Bureau
LMO	Living Modified Organism
LRA	Land Registration Authority
LTC	Land Transportation Office
MDC	Minerals & Development Council
MDG	Millennium Development Goal
MDGF	Millennium Development Goals Achievement Fund
MGB	Mines and Geo-Sciences Bureau
MILF	Moro Islamic Liberation Front
MMDA	Metropolitan Manila Development Authority
MMT	Multi-partite Monitoring Team
MO	Manila Observatory
MOA	Memorandum of Agreement
MOA	Memorandum of Agreement
MPAs	Marine Protected Areas
MTPDP	Medium Term Philippine Development Plan
MUZ	Multiple Use Zone
MWSS	Metropolitan Waterworks and Sewerage System
NAMRIA	National Mapping and Resource Information Authority
NAPC	National Anti-Poverty Commission
NAPOCOR	National Power Corporation
NBSAP	National Biodiversity Strategy and Action Plan
NCCA	National Commission for Culture and Art
NCIP	National Commission on Indigenous Peoples
NCR	National Capital Region
NCRFW	National Commission on the Role of Filipino Women
NCTs	National Cultural Treasures
NECA	Non-Environmentally Critical Areas
NECP	Non-Environmentally Critical Projects

NEDA	National Economic and Development Authority
NHA	National Housing Authority
NHCP	National Historical Commission of the Philippines
NIA	National Irrigation Administration
NIPAS	National Integrated Protected Areas System
NOV	Notice of Violation
NPAC	National Plan of Action for Children
NPC	National Power Corporation
NRDC	Natural Resources Development Corporation
NSCB	National Statistical Coordination Board
NSCS	Philippine National Seagrass Conservation Strategy and Action Plan
NSWMC	National Solid Waste Management Commission
NT	Near Threatened
NTFP-TF	Non-Timber Forest Products Task Force
NWRB	National Water Resources Board
OECH	Office on Education, Culture and Health
OED	Operational Evaluation Department
OEHR	Office of Empowerment and Human Rights
OFWs	Oversea Filipino Workers
OPPR	Office on Policy, Planning and Research
OSESSC	Office on Socio-Economic and Special Concerns
OSG	Office of the Solicitor General
OT	Other Threatened
PA	Protected Area
PAD	Project Application Document
PAGASA	Philippine Atmospheric, Geophysical & Astronomical Service Administration
PAGCOR	The Philippine Games and Amusements Corporation
PAPs	Project Affected Persons
PAWB	Protected Areas and Wildlife Bureau
PCAPI	Pollution Control Association of the Philippines
PCB	Provincial Consultative Body
PCFC	People's Credit and Finance Corporation
PCMs	Public Consultation Meeting
PCSD	Philippine Council for Sustainable Development
PCUP	Presidential Commission for the Urban Poor
PCW	Philippine Commission on Women
PD	Presidential Decree
PDAP	Philippine Development Assistance Program

PDR	Project Description Report
PDTF	People's Development Trust Fund
PEIS	Programmatic EIS
PEISS	Philippines Environmental Impact Statement System
PEMAPS	Project Environmental Monitoring and Audit Prioritization Scheme
PENRO	Provincial Environment and Natural Resources Office
PEPRMP	Programmatic EPRMP
PETC	Private Emission Test Center
PLC	Proof of Legal Capacity
PM	Particulate Matter
PMDC	Philippine Mining Development Corporation
PMO	Project Management Office
PNOC-EDC	PNOC Energy Development Corporation
PNP	Philippine National Police
PNRI	Philippine Nuclear Research Institute
PNSDW	Philippine National Standards for Drinking Water
PO	People's Organization
POPs	Persistent Organic Pollutants
PRA	Philippine Retirement Authority
PRRM	Philippine Rural Reconstruction Movement
PSCCA	Philippine Strategy on Climate Change Adaptation
PSCD	Palawan Council for Sustainable Development
PSP	Parcellary Survey Plan
PTFCC	Presidential Task Force on Climate Change
PWH	Department of Public Works and Highways
RA	Republic Act
RAP	Resettlement Action Plan
RHO	Regional Hearing Office
RIC	Resettlement Implementation Committee
RO	Regional Office
RPR	Review Process Report
RRT	Regional Review Team
SDBD	Sustainable Development Benefit Description
SDP	Social Development Program
SDP	Social Development Plan
SEA	Strategic Environmental Assessment
SEAPAT	South-East Asia and the Pacific Multidisciplinary Advisory Team
SEC	Security and Exchange Commission

SEP	Strategic Environment Plan for Palawan
SES	Socio-Economic Study
SMR	Self-Monitoring Report
SNCCC	Second National Communication on Climate Change
SPS	Safeguard Policy Statement
SPSC	Scoping/Procedural Screening Checklist
SPZ	Strict Protection Zone
SRA	Social Reform Agenda
TEC	Technical Evaluation Committee
TRANSCO	Transmission Corporation
TSP	
UDHR	Universal Declaration of Human Rights
VU	Vulnerable
WCSP	Wildlife Conservation Society of the Philippine
WEDO	The Women's Environment and Development Organization
WEPA	Water Environment Partnership in Asia
WFP	Work and Financial Plan
WMF	World Monuments Funds
WQMA	Procedural Manual for Designation of Water Quality Management Areas
WQMA	Procedural Manual for Designation of Water Quality Management Areas
WWF	World Wide Fund for Nature



**Chapter 1**  
**General Condition**



# Chapter 1. General Condition

## 1.1 General Condition of the Philippines

### 1.1.1 Location and Topography

The Philippines is an independent republic in the southeast rim of Asia with a land area of 300,400 sq. km. It is an archipelago of 7,107 islands, of which only 400 are permanently inhabited, lying about 1,851 km in a north-south direction. The archipelago is bounded by South China Sea, Pacific Ocean, Sulu Sea, and Celebes Sea.

The islands are grouped into three geographic regions, namely: Luzon, Visayas, and Mindanao. Figure 1.1-1 shows the map of the Philippines. The Philippines has the longest discontinuous coastline in the world – around 34,600 km.

The topography of the Philippines is extremely varied, with volcanic mountain masses forming the cores of most of the larger islands. The elevation ranges from sea level to the highest point of Mount Apo on Mindanao Island, at 2,954 meters above sea level. A number of volcanoes are active, and the islands have been subject to destructive earthquakes. Lowlands are generally narrow coastal strips except for larger plains in Luzon (Cagayan Valley and Central Plains), Mindanao (Cotabato and Davao-Agusan valleys), and others in Negros and Panay. Rivers are short and generally seasonal in flow. Flooding is a frequent hazard. The shores of many of the islands are embayed.



Source: [http://www.silent-gardens.com/img/map-philippines\\_rel93.jpg](http://www.silent-gardens.com/img/map-philippines_rel93.jpg) (Accessed on March 2011.)

**Figure 1.1-1 Map of the Philippines**

### 1.1.2 Meteorology

The Climate of the Philippines is tropical and maritime. It is characterized by relatively high temperature, high humidity and abundant rainfall.

Based on the average of all weather stations in the Philippines, excluding Baguio, the mean annual temperature is 26.6°C. The coolest months fall in January with a mean temperature of 25.5°C while the warmest month occurs in May with a mean temperature of 28.3°C. Latitude is an insignificant factor in the variation of temperature. Due to high temperature and the surrounding bodies of water, the Philippines has a high relative humidity. The average monthly relative humidity varies between

71 percent in March and 85 percent in September. Rainfall distribution throughout the country varies from one region to another, depending upon the direction of the moisture-bearing winds and the location of the mountain systems. The mean annual rainfall of the Philippines varies from 965 to 4,064 millimeters annually.

The Philippine is hit by numerous typhoon and storm starting in the month of July through October but sometimes it extend to December. The places that the typhoon struck are the Northern and Eastern Luzon and the Bicol and Eastern Visayas Region. An average of 25 typhoons visit the Philippines each year.

There are four recognized climate types in the Philippines that is categorized by the Philippine Atmospheric, Geophysical & Astronomical Service Administration (PAGASA) as follows.

- Type I: Two pronounced season: dry from November to April and wet during the rest of the year.
- Type II: No dry season with a pronounced rainfall from November to January.
- Type III: Seasons are not very pronounced, relatively dry from November to April, and wet during the rest of the year.
- Type IV: Rainfall is more or less evenly distributed throughout the year



PAGASA website (accessed in March 2011)

**Figure 1.1-2 Climate Map of the Philippines**

### 1.1.3 Hydrology

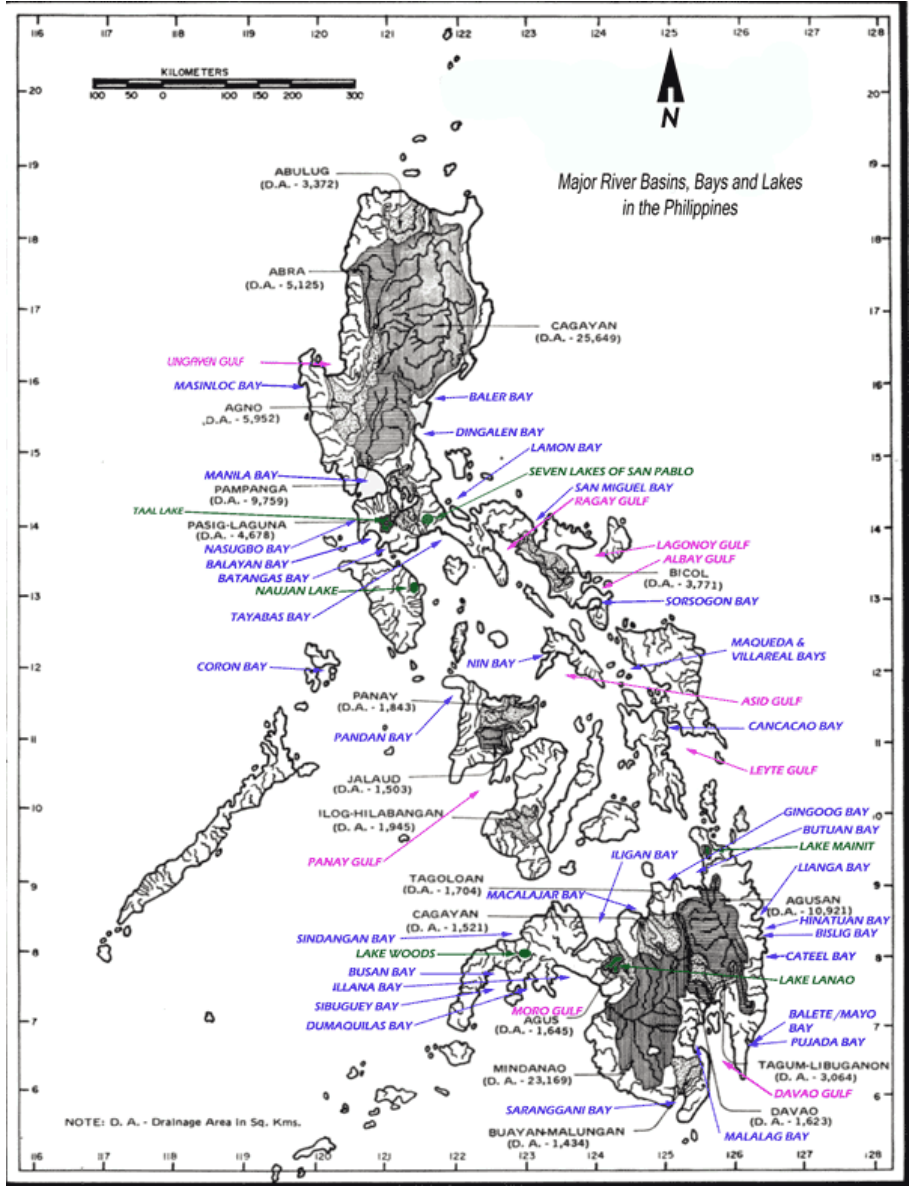
The country is rich in water resources. It has 421 principal river basins with drainage area varying from 41 to 27,280 km<sup>2</sup>. Out of these 421 principal river basins, 20 are considered as major river basins, with each one having at least 990 km<sup>2</sup> basin area. These major river basins cover a total area of 111,269 km<sup>2</sup> equivalent to 37.1% of the total land area of the Philippines.

In addition, the Philippines has 16 major lakes, covering 400 hectares and above. Of these, five are in Luzon (Laguna, Taal, Bato, Buhi and Baao), three in the Visayas (Naujan, Manguao and Danao) and the remaining seven in Mindanao (Lumao, Lanao, Buluan, Blingkong, Labas, Mainit, Pagusi).

The Philippines coastal bays and coastal waters cover an area of 266,000 sq. km; while its oceanic waters cover 1,934,000 sq. km. Philippine coastal waters contain some of the world’s most diverse ecosystems (The Integrated Water Resources Management (IWRM) Plan Framework, National Water Resources Board, 2006).

Groundwater is replenished or recharged by rain and seepage from rivers. As noted in Table 1.1-1,

the recharge or extraction potential is estimated at 20,200 MCM per year. Groundwater contributes 14 percent of the total water resource potential of the Philippines (Philippine Environment Monitor 2003, WB, 2003).



Source: Water Environment Partnership in Asia (WEPA), State of water environmental issues –Philippines (Accessed in April 2011)

**Figure 1.1-3 Major River Basins, Bays and Lakes in the Philippines**

**Table 1.1-1 Water Resource Potential of Each Region in the Philippines (in MCM)**

Region	Groundwater Potential	Surface Water Potential	Total Water Resources Potential	Percent Grounwater to Total Potential (%)
X Northern Mindanao	2,116	29,000	31,116	6.80
VI Western Visayas	1,144	14,200	15,344	7.45
IX Western Mindanao	1,082	12,100	13,182	8.21
XII Southern Mindanao	1,758	18,700	20,458	8.59
XI Southeastern Mindanao	2,375	11,300	13,675	17.37
III Central Luzon	1,721	7,890	9,611	17.91
IV Southern Tagalog	1,410	6,370	7,780	18.12
VIII Eastern Visayas	2,557	9,350	11,907	21.47
II Cagayan Valley	2,825	8,510	11,335	24.92
V Bicol	1,085	3,060	4,145	26.18
I Ilocos	1,248	3,250	4,498	27.75
VII Central Visayas	879	2,060	2,939	29.91
Total	20,200	125,790	145,990	13.84

Source: Philippines Environment Monitor 2003: Water Quality, World Bank (2003)

#### 1.1.4 Political Structure, Legal Framework, Administrative Organization

##### 1.1.1.1 1.1.4.1 Political Organizations

The Philippines is a constitutional republic and the President is the head of state. The government of the Philippines is composed of three independent branches: legislative, administrative and judicial. The legislative branch of the government is a bicameral legislature with the Senate and the House of Representatives, with the power to impeach the President and revoke martial law, and to approve senior government officials and bureaucrats. It is The Senate that approves ratification of the treaty. The judicial branch of government is headed by the Supreme Court with various other lower courts and the Supreme Court has the power of judicial review. It also judges the election of the President and the Vice President. The head of government is the President who is chosen through a direct election and serves terms of six years. The President has the power to pass or veto the bills and the power to appoint the judges.

Independent institutions include the Commission on Audit as the Constitutional Regulating Commission, the Commission on Elections, the Civil Service Commission. The heads and members of each commission are appointed by the President following nomination by the commission. In addition the Ombudsman acts as an observer of the administration to investigate and prosecute illegal acts and corruptions by civil service, the Officers of the Ombudsman acting as an independent institution.

##### 1.1.1.2 1.1.4.2 Legislative Branch

The national legislature of the Philippines is a bicameral legislature with the Senate and the House of Representatives.

The Senate is composed of 24 senators who are elected nationwide at-large and serve terms of six years with the prohibition of the re-election to a third term of the Senate. The other hand, the House

of Representatives is composed of not more than 250 representatives. The term of a member of the House of Representative is six years. It is prohibited to re-elect to a fourth term.

#### 1.1.1.3 1.1.4.3 Composition of the Government

The government consists of the following ministries under the President and the Vice President.

- Office of the President
- Department of Foreign Affairs
- Department of Finance
- Department of Budget and Management
- National Economic and Development Authority
- Department of Agrarian Reform
- Department of Agriculture
- Department of Energy
- Department of Environment and Natural Resources
- Department of Tourism
- Department of Trade and Industry
- Department of Public Works and Highways
- Department of Transportation and Communications
- Department of Education
- Department of Labor and Employment
- Department of Health
- Department of Social Welfare and Development
- Department of National Defense
- Department of Science and Technology
- Department of Justice
- Department of Interior and Local Government

#### 1.1.1.4 1.1.4.4 The local government

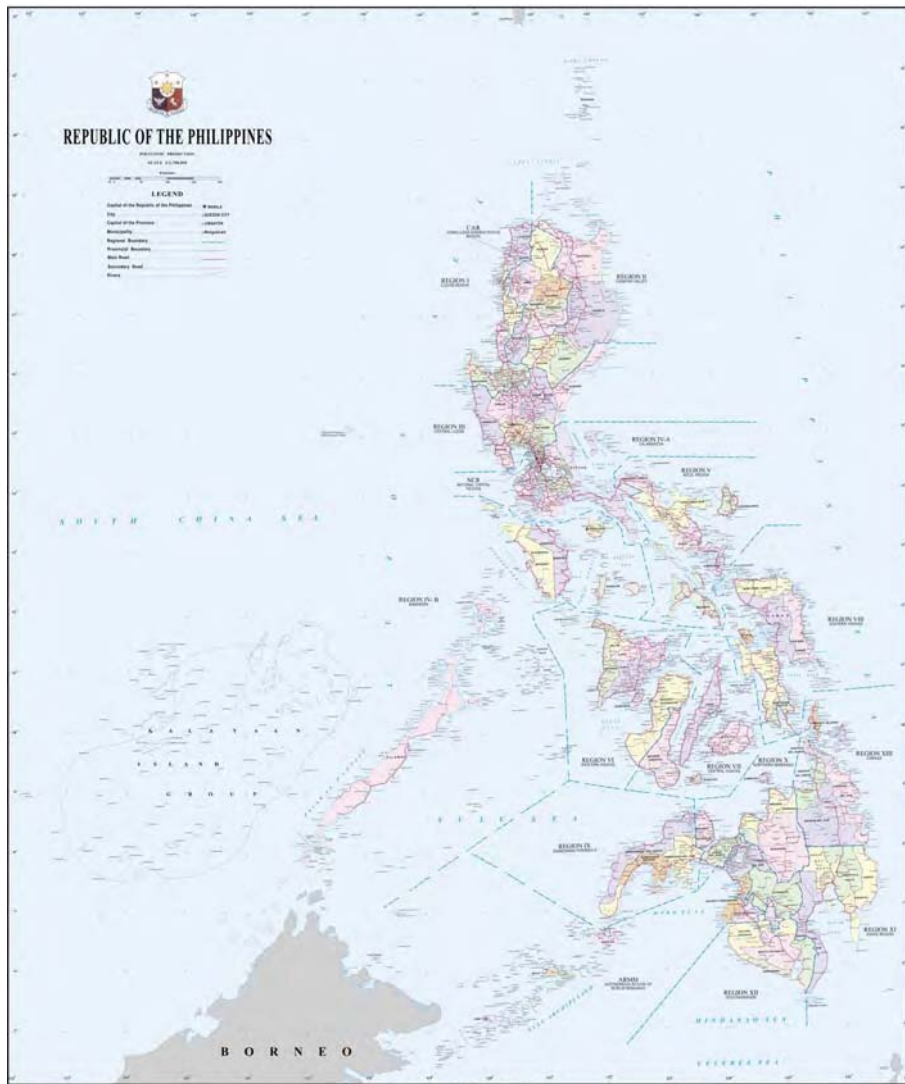
In the Philippines, decentralization have been promoted by Local Government Code of 1991 provides for a more responsive and accountable local government structure. Local government in the Philippines is divided into four levels: (1) regions, (2) provinces and independent cities, (3) component cities and municipalities and (4) barangays. As in Table 1.1-2, region, the Philippines is divided into one National Capital Region, one Autonomous region, and 15 regions. As a local government unit, the highest divisions are provinces and independent cities, which are classified as either highly urbanized or independent component cities, then lower divisions are component cities and municipalities. The lowest division of the local government unit is barangays (Figure 1.1-5). The Autonomous Region in Muslim Mindanao (ARMM) is governed by the regional governor. The Philippines has 80 provinces, 122 cities, 1512 municipalities and 42,025 barangays as of June, 2009. The requirements to be classified as HUC are a minimum population of two hundred thousand and the annual income of at least fifty million pesos. As of June, 2010, there are 33 HUCs in the Philippines, such as Cebu city and Davao city, and 16 of them are located in Metro Manila, such as Manila, Makati and Quezon city. ICCs are not classified as HUC but are independent of the province.

**Table 1.1-2 17 Regions in the Philippines**

	<b>Region</b>	<b>Province</b>
Luzon	Region I: Ilocos	Iloilo Norte, Ilocos Sur, La Union, Pangasinan
	Region II: Cagayan Valley	Batanes, Cagayan, Isabela, Nueva Vizcaya, Quirino
	Region III: Central Luzon	Aurora, Bataan, Bulacan, Nueva Ecija, Pampanga, Tarlac, Zambales
	Region IV-A: CALABARZON	Batangas, Cavite, Laguna, Quezon, Rizal
	Region IV-B: MIMAROPA	Marinduque, Occidental Mindoro, Oriental Mindoro, Palawan, Romblon
	Region V: Bicol Region	Albay, Camarines Norte, Camarines Sur, Catanduanes,

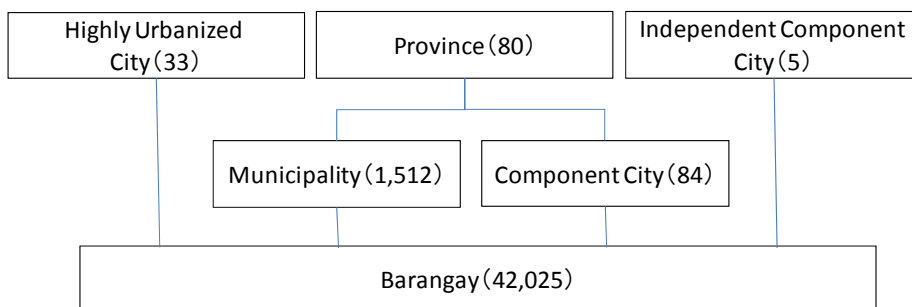
	<b>Region</b>	<b>Province</b>
		Masbate, Sorsogon
	CAR: Cordillera Administrative Region	Abra, Apayao, Benguet, Ifugao, Kalinga, Mountain Province
	NCR: National Capital Region	--
VISAYAS	Region VI: Western Visayas	Aklan, Antique, Capi, Guimaras, Iloilo, Negros Occidental
	Region VII: Central Visayas	Bohol, Cebu, Negros Oriental, Siquijor
	Region VIII: Eastern Visayas	Biliran, Eastern Samar, Leyte, Northern Samar, Samar (Western Samar), Southern Leyte
MINDANAO	Region IX: Zamboanga Peninsula	City of Isabela, Zamboanga Del Norte, Zamboanga Del Sur, Zamboanga Sibugay
	Region X: Northern Mindanao	Bukidnon, Camiguin, Lanao Del Norte, MisamisOccidental, Mismis Oriental
	Region XI: Davao	Compostela Valley, Dabao Del Norte, Davao Del Sur, Davao Oriental
	Region XII: SOCCSKSARGEN	Cotabato, Cotavato City, Sarangani, South Cotabato, Sultan Kudarat
	Region XIII: Caraga	Agusan Del Norte, Agusan Del Sur, Dinagat Islands, Surigao Del Norte, Surigao Del Sur
	ARMM: Autonomous Region in Muslim Mindanao	Basilan, Lanao Del Sur, Maguindanao, Sulu, Tawi-Tawi

Source: National Statistical Coordination Board <http://www.nscb.gov.ph/activestats/psgc/listreg.asp> (Accessed in April 2011)



Source: National Mapping and Resource Information Authority

**Figure 1.1-4 17 Regions in the Philippines**



Note: The number in the brackets shows the number of administrations as of June 2010.

Source; Department of Interior and Local Government website(<http://www.dilg.gov.ph/lgu.php>) (Accessed on April 2011)

**Figure 1.1-5 Local Administrations in the Philippines**

## 1.2 Regulations and Policies on the Environmental and Social Considerations

Table 1.2-1 shows major regulations and policies on the environmental and social considerations. Detail information discuss on each related chapter.

**Table 1.2-1 Major Regulations and Policies on the Environmental and Social Considerations**

Regulation	Year	Name/ Regulated Contents
General/Basic Policy		
Presidential Decree 1152	1977	Philippine Environmental Policy
Executive Order No.192	1987	Reorganization of the DENR
Natural Environment/ Biodiversity/ Forestry		
Presidential Decree No.705	1975	Revised Forestry Code of the Philippines
Presidential Decree No.1067	1976	Water Code of the Philippines
Republic Act No.7586	1992	National Integrated Protected Areas System Act
Republic Act No.9147	2001	Wildlife Resources Conservation and Protection Act
Brown Issue		
Republic Act No.6969	1990	Toxic Substances, Hazardous and Nuclear Wastes Control Act
Republic Act No.8749	1999	Clean Air Act
Republic Act No.9003	2001	Ecological Solid Waste Management Act
Republic Act No.9275	2004	Clean Water Act
Climate Change		
Republic Act No.9267	2006	Biofuels Act
Republic Act No.9513	2008	Renewal Energy Act
Republic Act No.9729	2009	Climate Change Act
EIA		
Presidential Decree 1586	1978	Establishing An Environmental Impact Statement System
DAO <sup>1</sup> No.30 series of 2003	2003	Regulation for Philippines Environmental Impact System
Land Acquisition/Involuntary Resettlement		
Presidential Decree No. 1533	1978	Regulation for determining compensation
Republic Act No.7279	1992	Urban Development and Housing Act
Republic Act No.8974	2000	An Act to Facilitate the Acquisition of Right-of-Way, Site or Location for National Government Infrastructure Projects and for Other Purposes
DPWH <sup>2</sup> Department Order NO.5	2003	Creation of the Infrastructure Right of Way and Resettlement Project Management Office (IROW-PMO) and the Implementation of the Improved IROW Process
Indigenous People		
Republic Act No.8371	1997	Indigenous Peoples Rights Act
Environmental Standard		
DAO No.1990-34	1990	Water Quality Criteria
DAO No.1990-35	1990	Effluent Standard:
DAO NO.1994-26A	1994	Standard Parameters and Values for Drinking-water Quality
DAO No.2000-81	2000	National Ambient Air Quality Standards, National emission standards for Source Specific Air Pollutants

Note: 1 DAO; DENR (Department of Environment and Natural Resources) Administrative Order

2 DPWH; Department of Public Works and Highways

Source: Relevant authorities' website (Accessed on April 2011)

### 1.3 Administrative Organizations related to the Environmental and Social Considerations

#### 1.3.1 Department of Environment and Natural Resources (DENR)

Executive Order No. 192 enacted in 1988 mandates the Department of Environment and Natural Resources (DENR) to be the government agency primarily responsible for the country's environment and natural resources. The DENR is responsible for the conservation, management, development, and sustainable use of the country's environment and natural resources. The DENR has six (6) bureaus and sixteen (16) Regional Offices in each administrative region. The DENR also operates with ten (10) attached agencies and corporations.

The DENR's core function is as follows;

- To formulate and implement policies, guidelines, rules and regulations relating to environmental management and pollution prevention and control
- To formulate, implement and supervise the government's policies, plans and programs pertaining to the management, conservation, development, use and replenishment of the country's natural resources and biological diversity.
- To promulgate and implement rules and regulations governing the exploration, development, extraction, disposition, and use of our forests, lands, minerals, wildlife and other natural resources.

#### 1.1.1.5 (1) Bureaus and Attached Agencies and Corporations

The Table 1.3-1 and Table 1.3-2 show Six Bureaus and ten Attached Agencies and Corporations under the DENR, respectively.

**Table 1.3-1 Six Bureaus under the DENR**

<b>Bureau</b>	<b>Responsible Areas</b>
Forest Management Bureau (FMB)	Effective protection, development, occupancy management, and conservation of forest lands and watersheds.
Lands Management Bureau (LMB)	Rational land classification management and disposition
Mines and Geo-Sciences Bureau (MGB)	Promotion of sustainable mineral resources development
Environmental Management Bureau (EMB)	Environmental management, conservation, and pollution control
Ecosystems Research and Development Bureau (ERDB)	Research and development (R&D) related to biodiversity and natural resources
Protected Areas and Wildlife Bureau (PAWB)	Establishment, management and development of the National Integrated Protected Areas System Conservation of wildlife resources

Source: Executive Order No.192 (1987), each bureau's website (Accessed in April 2011)

**Table 1.3-2 Attached Agencies and Corporations under the DENR**

<b>Attached Agencies and Corporations</b>	<b>Responsible Areas</b>
National Mapping and Resource Information Authority (NAMRIA)	Mapmaking services to the public as the central mapping agency, depository, and distribution facility for natural resources data in the form of maps, charts, texts, and statistics.
Laguna Lake Development Authority (LLDA)	Environmental management of the Laguna de Bay Region, particularly on water quality monitoring, conservation of natural resources, and community-based natural resource management

<b>Attached Agencies and Corporations</b>	<b>Responsible Areas</b>
National Water Resources Board (NWRB)	Ensuring of the optimum exploitation, utilization, development, conservation and protection of the country's water resource, consistent with the principles of Integrated Water Resource Management
Natural Resources Development Corporation (NRDC)	help for promoting the development of the country's natural resources (collect the management fees, service fees, environmental user's fees and other fees)
Land Registration Authority (LRA)	Issue of decrees of registration and certificates of titles and register documents, patents and other land transaction
Philippine Retirement Authority (PRA)	Provision of services centered towards customer-valued quality of life to foreign retirees and global Filipinos, as a channel of accelerating the socio-economic development of the country
Philippine Mining Development Corporation (PMDC)	Development, promotion and management of various mining projects
Minerals & Development Council (MDC)	Supervision of the proper and sustainable development of the country's mineral resources
Palawan Council for Sustainable Development (PSCD)	Implementation of the Strategic Environmental Plan for Palawan Act to promote development, conservation, management, protection and utilization of the natural resources of Palawan for the present and future generations
National Commission on Indigenous Peoples (NCIP)	Protection and promotion of the interest and well-being of the ICCs/IPs with due regard to their beliefs, customs and institutions.

Source: DENR and Each bureau's website (Accessed in April 2011)

#### 1.1.1.6 (2) Regional Office

DENR has sixteen (16) Regional Offices to administrate several provinces in each of region. Basically in each region, there are the Provincial Environmental and Natural Resources Office (PENRO) in each Province. In each Province, there are several Community Environment and Natural Resources Offices (CENROs) to administrate cities and municipalities..

### 1.3.2 Other Relevant Authorities

#### 1.1.1.7 (1) Department of Agriculture (DA)

DA is engaged in the development of sustainable agriculture that enables the food self-supporting through the following bureaus.

- Bureau of Soils and Water Management, National Irrigation Administration; Environmental Management of agricultural land
- Fertilizer and Pesticide Authority; Management of pesticides and fertilizers
- Bureau of Fishery and Aquatic Resources; Management of fishery and aquatic resources, management of coastal and deep sea resources

#### 1.1.1.8 (2) Department of Agrarian Reform (DAR)

DAR established in 1988 for conducting the Comprehensive Agrarian Reform Program assists both farmers and landowners by conducting various kinds of projects that include improvement of agricultural infrastructure.

#### 1.1.1.9 (3) Department of Energy (DOE)

DOE is engaged in conducting energy development projects, management of oil companies and introduction of clean energy. Under the DOE, there is the National Power Corporation that is conducting air quality monitoring and the National Electrification Authority that is in charge of development of local energy.

#### 1.1.1.10 (4) Department of Finance (DOF)

The Bureau of Customs monitors the export of wildlife.

#### 1.1.1.11 (5) Department of Health (DOH)

DOH has the responsibility in people's health including their surrounding environment and safety.

#### 1.1.1.12 (6) Department of Public Works and Highways (DPWH)

DPWH has the responsibility in the construction of public infrastructure such as national road, flood control and water resource development.

#### 1.1.1.13 (7) Department of Science and Technology (DOST)

DOST has several subordinate bodies such as the Industrial Technology and Development Institute, the Philippine Council for Industry and Energy Development, the Philippine Council for Agriculture and the Forestry and Natural Resources, those of which conduct various kinds of environmental research and investigation.

#### 1.1.1.14 (8) Department of Tourism (DOT)

The Philippine Tourism Authority under the DOT is in charge of protection, management and restoration of natural environment from the viewpoint of the tourism.

#### 1.1.1.15 (9) Department of Trade and Industry (DTI)

DTI assumes industrial promotion and supplies the subsidy to the cleaner production technology. Moreover, DTI manages the investments of pollution-abatement measures/technology for air and water.

#### 1.1.1.16 (10) Department of Transportation and Communication (DOTC)

DOTC is operating registration systems of cars and its inspection, maintaining the public transportation system, taking approach to improve the car exhaust gas, managing drain from the ship and so on.

#### 1.1.1.17 (11) Philippine National Police (PNP)

Philippine Coast Guard under the PNP protects and preserves marine and coastal natural resources.

### 1.4 Current Situation concerning Ratification and Application of International Regulation

Table 1.4-1 shows international regulations/agreements that the Philippines has ratified. Detailed information of them discuss on each related chapter.

**Table 1.4-1 Philippines Ratification of International Regulations/Agreements**

<b>International Regulation</b>	<b>Ratified date</b>
Biodiversity <ul style="list-style-type: none"> <li>• 1992 Convention on Biological Diversity</li> <li>• 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora</li> <li>• 1971 Convention on Wetlands of International Importance</li> <li>• 1983 The Convention on the Conservation of Migratory Species of Wild Animals</li> <li>• 2000 Cartagena Protocol on Biosafety</li> </ul>	October, 1993 August, 1981  November, 1994 January, 1994 May, 2000
Marine Affairs <ul style="list-style-type: none"> <li>• 1982 United Nations Convention on the Law of the Sea</li> <li>• 1973 International Convention for the Prevention of Pollution from Ships</li> </ul>	May, 1984
Climate Change <ul style="list-style-type: none"> <li>• 1989 Montreal Protocol on Substances that Deplete the Ozone Layer</li> <li>• 1988 Vienna Convention for the Protection of the Ozone Layer</li> <li>• 1990 London Amendment</li> <li>• 1992 United Nations Framework Convention on Climate Change</li> <li>• 1997 Kyoto Protocol</li> <li>• 1994 United Nations Convention to Combat Desertification</li> </ul>	March, 1991 July, 1991 August, 1993 August, 1994 April, 1998 February, 2000
hazardous Waste, Hazardous Substance <ul style="list-style-type: none"> <li>• 1992 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal</li> <li>• 2004 Stockholm Convention on Persistent Organic Pollutants</li> <li>• 2004 Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade</li> </ul>	October, 1993  May, 2001 September, 1998
Cultural and Historic Heritage <ul style="list-style-type: none"> <li>• 1972 Convention concerning the Protection of the World Cultural and Natural Heritage</li> </ul>	May, 1985
Forestry <ul style="list-style-type: none"> <li>• 1985 International Tropical Timber Agree</li> </ul>	November, 1983

Source: Secretariat of each regulation/agreement (Accessed in March, 2011)

### 1.5 Trend of NGOs related to Environmental and Social Considerations

Philippines is one of the countries where various NGOs such as grassroots NGOs, specialized NGOs as well as networking NGOs are active and developed. In the field of environment, there are many NGOs who have become more active since the 1980s, helping to shape environmental policy in agrarian reform and against illegal logging and environmental damage from irresponsible mining. Currently, they play a major role in advocacy and community based activities for biodiversity, waste management, climate change adaptation and so on. Table 1.5-1 shows the list of local NGOs working in the field of environmental and social consideration.

**Table 1.5-1 Local NGOs in the Field of Environmental and Social Consideration  
in the Philippines**

Name of NGOs	Activities
Conservation International (CI)	CI is one of the world's largest NGOs in biodiversity conservation. In the Philippines it is a partner of the DENR in several initiatives for the conservation of Philippine biodiversity including the Sulu-Sulawesi Seascape and biodiversity hotspots.
Environmental Legal Assistance Center	The Environmental Legal Assistance Center was formed in 1990 as a special project of the Protestant Lawyers' League of the Philippines to mobilize human rights lawyers on behalf of communities besieged by environmental problems.
Foundation for the Philippine Environment	The Foundation for the Philippine Environment, incorporated in 1992, aims to reverse the rapid destruction of the Philippines' natural resources by initiating programs and activities that strengthen the role of NGOs, people's organizations, and local communities in responsible ecosystem management. The initial financial base of the foundation is an endowment fund established through debt-for-nature swaps.
Haribon Foundation	Haribon Foundation is a leading conservation NGO in the Philippines with more than 25 years of experience in addressing critical environmental problems at policy and community levels. Haribon has been at the forefront of finding workable environmental strategies for implementing sustainable development in the Philippines. It has made a significant contribution to pioneering initiatives such as the National Integrated Protected Areas System, community-based coastal resource management, and environmental law education and practice. It bases its conservation work on the best-quality biodiversity research in the Philippines. The foundation has a staff of over 40 professionals, with varied specializations, and has been the recipient of various grants.
KALIKASAN-People's Network for the Environment	KALIKASAN-People's Network for the Environment is a network of NGOs established to enable greater coordination and complementation in addressing the environmental issues that continue to worsen the lives of already marginalized people.
LRC-KSK/Friends of the Earth	LRC-KSK/Friends of the Earth, established in 1987 with the aim of empowering the marginalized directly dependent on natural resources, has developed expertise in indigenous people's rights, environmental management, forestry issues, energy efficiency, and community and local initiatives. It is the official Philippine affiliate of Friends of the Earth International.
Non-Timber Forest Products Task Force	The Non-Timber Forest Products Task Force is a collaborative network of Philippine grassroots NGOs established to address emerging livelihood needs of upland forest dwellers in the context of sustainable forest management. It is a beneficiary of the Small Grants Fund of the European Commission.
Philippine Rural Reconstruction Movement (PRRM)	The PRRM designs and implements community and habitat development programs across the archipelago. Founded in 1952, it is one of the country's longest-serving NGOs.

Name of NGOs	Activities
World Wide Fund for Nature (WWF)-Philippines	The WWF-Philippines began with the desire to save the Philippine marine environment. Th rough the years, WWF programs have grown to include work in freshwater and forest ecosystems and pioneering projects in toxics and climate change while maintaining WWF’ s strong emphasis on oceans, coasts, and marine species. WWF-Philippines implements conservation and development projects in 11 provinces and at least 28 towns. Nationwide, WWF advocates appropriate environmental policies, engages corporations in sustainable business, and conducts environmental education activities in Metro Manila and other key cities and towns. The field projects of WWF-Philippines support local efforts in coastal resource management, community-based ecotourism, management of protected areas, and environmental law enforcement, among others. WWF’ s projects in species protection serve as catalytic platforms for broader coastal management and conservation in a number of areas. These include the Irrawaddy dolphin in Malampaya Sound, Palawan; the whaleshark in Donsol, Sorsogon; whales and dolphins in Tanon Strait, Negros Oriental; sea turtles in the Turtle Islands, Tawi-Tawi; the dugong in Roxas, Palawan; and the humpback whale in Babuyan Islands. WWF draws support for its projects from various partners including multilateral agencies.
Pollution Control Association of the Philippines, Inc (PCAPI)	PCAPI formed in June 1980 to work hand in hand with the government in the protection of the environment, particularly with regards to the prevention, control and abatement of land, air and water pollution.
FoE Japan	FoE Japan is an international NGO which has dealt with environmental problems in at the global level since 1980. In the Philippines the FoE Japan monitors the San Roque Dam Project which was financed nearly all by the JBIC loan , and nickel smelter project by the Coral Bay Nickel Corporation that mainly includes the Japanese private companies as shareholding companies.
Philippine Development Assistance Programme	The Philippine Development Assistance Programme, Inc., started as a consortium of Filipino and Canadian NGOs. It was founded in 1986 to become an effective instrument in reducing poverty and inequity in the Philippines. PDAP prides itself in having 6 member networks with more than 300 community-based members and partner NGOs. PDAP has distinguished itself in promoting and developing rural enterprises for poverty reduction and as a tool in promoting peace in conflict-affected areas.
Caucus of Development NGO	CODE-NGO is the largest coalition of development NGOs in the Philippines, representing more than 1,600 development NGOs, people's organizations and cooperatives nationwide, which influences public policy and provides leadership in civil society. Their activities include mobilizing a broad range of civil society organizations, advocating good citizenship and governance as well as building up a credible and widely-accepted policy advocacy.

Source: Country Environmental Analysis 2008: Philippines, ADB (2008) ,Website of Philippine Sustainable Development Network and each NGOs (Accessed in May 2011)

## 1.6 Trend of Donors

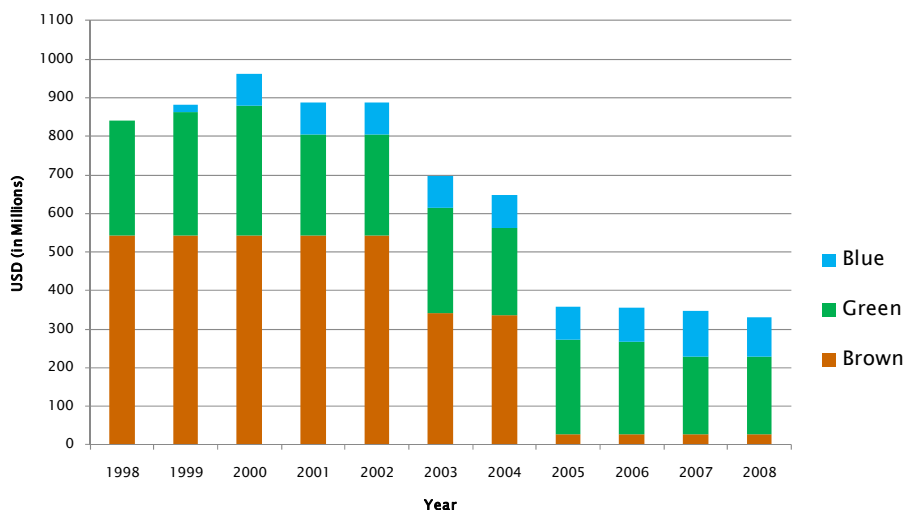
The National Economic and Development Authority (NEDA) reported that the trend in the last five years indicates that loan portfolio size is around US\$ 10 billion. The share of program loans to total net commitment is generally increasing. As shown in the Table 1.6-1, total net commitment in CY 2009 amounted to US\$ 9.637 million (for 100 projects supported by 106 loans). Infrastructure sector accounts for the largest share of 56% in CY 2009 and in the last 10 years. JICA finances the largest share of 36% in CY 2009 and in the last 10 years. This was followed by the ADB with 18%, the World Bank with 16% and China with 11%.

**Table 1.6-1 ODA Portfolio Review Distribution of Total ODA Loan by Sector (2009)**

Sector/ Sub-sector	No. of Loans	Net Loan	
		US\$ Million	% Share
Agriculture, Agrarian Reform and Natural resources	30	1,612.28	16.73
Agriculture and Agrarian Reform	23	1,332.21	13.82
Environment and Natural resources	7	280.07	2.91
Infrastructure	49	5,741.39	59.58
Energy, power and electrification	7	605.23	6.28
Social Infrastructure	6	820.77	8.52
Transportation	27	3,726.59	38.67
Water Resources	9	588.8	6.11
Industry, Trade and Tourism	7	470.02	4.88
Governance and Institutions Development	6	909.19	9.43
Economic Governance	4	587.29	0.09
Political governance	1	21.9	0.23
administrative Governance	1	300	3.11
Social Reform and Development	14	904.33	9.38
Education and Manpower Development	3	285.76	2.97
Health, Population and Nutrition	6	223.2	2.32
Social Welfare and Community Development	4	360.52	3.74
Shelter and Urban Development	1	34.43	0.36
<b>Grand Total</b>	<b>106</b>	<b>9637.21</b>	<b>100</b>

Source: 18<sup>th</sup> ODA Portfolio Review 2009, NEDA

As for environmental fields, the total amount of loans to environmental projects have been decreased for 10 years since 1998. Especially, total loans for brown issues in 2008 became less than one-tenth of that in 1998.



Source: ENR Policy and Financing, NEDA (September 2009)

**Figure 1.6-1 Trends of Loans for Environmental Project for 10 years (1998-2008)**

### 1.6.1 ADB

The ADB set a tight strategic focus on fiscal consolidation, an improved investment climate, and the accelerated attainment of the Millennium Development Goals under the country strategy and program (CSP) 2005–2007 (2005) for the Philippines.

In environmental sector, the ADB focuses on integration of climate change into Government programs by both mitigation and adaptation approach, in cooperation with Executing Agencies such as the DOE and DENR and other stakeholders. The focus on mitigation contributes to enhancing national energy security through targeted initiatives (a) to improve energy efficiency, (b) to diversify energy sources, and (c) to improve energy efficiency and to manage appropriate fuel substitution in the transport sector. A pilot project on REDD are taken up to enhance carbon sequestration by forests in selected river basins, as part of the Integrated Natural Resources and Environmental Management Project. In addition, pilot activities on adaptation are undertaken to build resilience of agriculture and water resources in a changed climate.

### 1.6.2 World Bank

The World Bank Country Assistance Strategy (CAS) for the Philippines for 2010-2012 (2009) has greater focus on poverty reduction. With a central goal of achieving growth that works for the poor, the World Bank Group supports the Philippines in pursuing macroeconomic stability, an improved investment climate, better public service delivery for the poor, reduced vulnerabilities to income shocks and natural disasters, and better governance. One of the CAS areas is disaster risk management and climate change to help vulnerable LGUs by introducing disaster reduction and recovery work and climate change adaptation measures.

### 1.6.3 USAID

For CY2009, the USAID allotted \$96.04 Million for bilateral assistance programs and grants to non-government organizations. The United States Country Assistance Strategy 2009-2013 for the Philippines set four goals as follows;

1. Accelerating Growth through Improved Competitiveness
2. Strengthening Governance, Rule of Law, and the Fight against Corruption.
3. Investing in People to Reduce Poverty.
4. Promoting a Peaceful and Secure Philippines.

Toward these goals, the USAID focuses environmental assistance on national and local natural resource management capacities, water and sanitation systems and approaches, and disaster preparedness.

### 1.6.4 GTZ

GTZ's activities in the Philippines currently focus on the priority areas of environment, economic reform and conflict transformation and crisis prevention.

German development cooperation in the Philippines focuses on sustainable resource management in coastal zones and fisheries management in the Visayan Sea region. On the island of Leyte, Technical Cooperation supports the sustainable management of coastal zones, forest and farmland. An urban environmental management/waste management programme is being introduced. GTZ supports the

DENR in introducing quality management with the aim to improve services in the field of municipal forest and coastal zone management.

#### 1.6.5 China

However NEDA ranked China as the fourth highest funding source with 10% of total ODA commitments in CY2009, it is difficult to quantify the China's foreign aid due to lack of data and the unique characteristics of Chinese assistance. China administers a wider range of economic assistance that includes non-development aid and low-interest loans, as well as trade and investment agreements – although it doesn't have a definite body in charge of development assistance.

It was reported that NEDA signed an economic partnership agreement that includes seven projects with China in January 2007. Among them, most were infrastructure project, one was Angat Water Utilization and Aqueduct Improvement Project (AWUAIP) which involved the construction of an 11.5 km new aqueduct which is intended to secure the existing raw water supply for Metro Manila.



## **Chapter 2**

### **Natural Environment**



## Chapter 2. Natural Environment

### 2.1 General Condition

#### 2.1.1 General Features

The Philippines is an archipelago of more than 7100 islands covering an estimated land area of 30 million hectares. Its archipelagic waters cover an estimated 229 million hectares or approximately 88% of the Philippine territory. The country's complex geological history and long period of isolation from the rest of the world have produced varied landforms, water bodies, and climatic conditions. These, in turn, have contributed to the wide array of soil, temperature, moisture, and weather regimes and combined with its former extensive areas of rainforests and its tropical location, have given rise to high species diversity and endemism.

According to the 4th National Report to the Convention on Biological Diversity (2009), the Philippines is 5th in the number of plant species and maintains 5% of the world's flora. Species endemism is very high covering at least 25 genera of plants and 49% of terrestrial wildlife. It also ranks 4th in bird endemism. In terms of fishes, there are about 3,214 (incomplete list) with about 121 endemic and 76 threatened species.

Unfortunately, it is also one of the fifteen world's hotspots in 1992- with a large number of endangered and threatened species- thus making it one of the top global conservation priority areas. Nowadays, as regards this particular problem, quick and sustainable measures are required to the Philippines.

#### 2.1.2 Relevant Authorities

##### 2.1.2.1 Protected Areas and Wildlife Bureau (PAWB), DENR

The Protected Areas and Wildlife Bureau (PAWB) is one of five bureaus of the Department of Environmental and Natural Resources (DENR) established under the Executive Order (EO) No.192 in 1987.

The PAWB's mandate is as follows;

- Establishing and Managing Protected Areas
- Conserving Wildlife
- Promoting and Institutionalizing Ecotourism
- Managing Coastal Biodiversity and Wetlands Ecosystems
- Conserving Caves and Cave Resources
- Information and Education on Biodiversity and Nature Conservation
- Managing Ninoy Aquino Parks and Wildlife Center and the Hinulugang Taktak National Park
- Negotiating biodiversity-related Multilateral Environmental Agreements and Monitoring National Compliance

##### 2.1.2.2 Forest Management Bureau (FMB), DENR

The Forest Management Bureau (FMB) of the DENR which integrated and absorbed the powers and

functions of the Bureau of Forest Development and the Wood Industry Development Authority under the EO No.192 provides support for the effective protection, development, occupancy management, and conservation of forest lands and watersheds.

The Bureau has the following functions:

- Recommends policies and/or programs for the effective protection, development, occupancy, management and conservation of forest lands, watersheds, including 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, 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;
- Advises the Regional Offices in the implementation of the above policies and/or programs;
- Develops plans, programs, operating standards and administrative measures to promote the Bureau's objectives and functions;
- Assists in the monitoring and evaluation of forestry and watershed development projects to ensure efficiency and effectiveness;
- Undertakes studies on the economics of forest-based industries, including the supply and demand trends on the local, national and international levels, identifying investment problems and opportunities in various areas.

#### 2.1.2.3 Ecosystems Research and Development Bureau (ERDB), DENR

The Ecosystems Research and Development Bureau (ERDB) was created in June 1987 under Executive Order (EO) 192 that merged the function of the former Forest Research Institute and the National Mangrove Committee. The ERDB is the principal research and development (R&D) unit of the DENR. Its R&D and extension activities are focused on the five major ecosystems of the Philippines which include forests, upland farms, grassland and degraded areas, coastal zone and freshwater, and urban areas. ERDB has the following mandates/functions:

- Formulates an integrated research and development program on Philippine ecosystems and natural resources;
- Monitors and evaluates DENR regional and integrated research, development and extension (RDE) programs of 16 DENR Regional Research and Development Services;
- Coordinates R&D activities of all regional research offices;
- Conducts research to generate technologies towards sustainable management and use of Philippine ecosystems and natural resources;
- Organizes and translates all recommendable findings into understandable language and presentation; and
- Facilitates dissemination of research information and technology to all possible users.

### 2.1.3 Relevant Regulations, Policies and Plans

#### 2.1.3.1 Relevant Regulations

**Republic Act No. 7586 (1992):National Integrated Protected Areas System Act (NIPAS Act)**

The National Integrated Protected Areas System Act (NIPAS Act) was enacted in 1992 to provide for the establishment and management of protected areas (PAs) in the Philippines. It serves to protect outstandingly remarkable areas and biologically important public lands that are habitats of rare and endangered species of plants and animals representative of biogeographic zones and related ecosystems. This includes preservation of genetic diversity. DAO No.92-25 (1992) that provides implementation rules and regulations were amended by DAO No.2008-26 (2008).

#### **Republic Act No. 9147 (2001): Wildlife Resources Conservation and Protection Act**

The Wildlife Resources Conservation and Protection Act was enacted in 2001 to conserve the wildlife resources and their habitats for sustainability in the Philippines. Under this Act, unless otherwise allowed, it shall be unlawful for any person to willfully and knowingly exploit wildlife resources and their habitats, or undertake the following acts;

- Killing and destroying wildlife species, except when it is done as part of the religious rituals of established tribal groups or indigenous cultural communities, when the wildlife is afflicted with an incurable communicable disease and so on.
- Introduction, reintroduction or restocking of wildlife resources;
- Inflicting injury which cripples and/or impairs the reproductive system of wildlife species;
- Effecting any of the acts in critical habitat(s), such as dumping of waste products detrimental to wildlife, occupying any portion of the critical habitat, mineral exploration and/or extraction, burning and logging
- Trading of wildlife;
- Collecting, hunting or possessing wildlife, their by-products and derivatives;
- Gathering or destroying of active nests, nest trees, host plants and the like;
- Maltreating and/or inflicting other injuries not covered by the preceding paragraph; and
- Transporting of wildlife.

#### 2.1.3.2 International Agreements

##### **Convention on Biological Diversity (CBD) (1992)**

The Philippines signed the Convention on Biological Diversity (CBD) in 1992, that aims for the conservation of biological diversity, the sustainable use of the components of biological diversity, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, The Philippines ratified the same in 1993. Member-parties are committed to comply with the provisions of the Convention and implement the same through its domestic laws. The Philippines submitted the Fourth National Report to the Convention on Biological Diversity in 2009 (4th National Report on the CBD), focused on the assessment of the country's progress towards meeting the 2010 biodiversity target: "Achieving by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on earth".

##### **Bonn Convention or Convention on Migratory Species (CMS) (1983)** (see 2.2.3.4)

The Convention on the Conservation of Migratory Species of Wild Animals (also known as CMS or Bonn Convention), which entered into force in 1983, aims to conserve terrestrial, marine and avian

migratory species throughout their range. It is an intergovernmental treaty, concluded under the aegis of the United Nations Environment Programme, concerned with the conservation of wildlife and habitats on a global scale. The Philippines entered into agreement with the Convention on January 1994, and included sea turtles, dugong and sharks as the top protected species in the list.

**Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (1973) (see 2.2.3.5)**

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is an international agreement between governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival. All import, export, re-export and introduction from the sea of species covered by the Convention has to be authorized through a licensing system. There are three categories of CITES wherein Appendix I includes species threatened with extinction. Trade in specimens of these species is permitted only in exceptional circumstances; Appendix II includes species not necessarily threatened with extinction, but in which trade must be controlled in order to avoid utilization incompatible with their survival. The Philippines ratified this convention in 1981.

**Cartagena Protocol on Biosafety (2000)**

Cartagena Protocol on Biosafety is an international agreement which aims to ensure the safe handling, transport and use of living modified organisms (LMOs). The Philippines ratified it in 2000.

2.1.3.3 Conservation Strategies and Plans

**National Biodiversity Strategy and Action Plan (NBSAP) (1997)**

In accordance with the CBD Article 6 of the Convention, the Philippines developed the National Biodiversity Strategy and Action Plan (NBSAP) in 1997. The NBSAP provided six strategies to conserve the country's biodiversity as follows,

- Expanding and improving knowledge on the characteristics, uses, and values of biological diversity
- Enhancing and integrating existing and planned biodiversity conservation efforts with emphasis on in-situ activities
- Enhancing and integrating existing and planned biodiversity conservation efforts with emphasis on in-situ activities
- Strengthening capacities for integrating and institutionalizing biodiversity conservation and management
- Mobilizing an integrated information, education and communication (IEC) system for biodiversity conservation
- Advocating stronger international cooperation on biodiversity conservation and management

**Philippine Biodiversity Conservation Priorities (PBCP) (2002)**

This resulted to a broad-based consensus of more than 300 expert scientists and decision-makers from more than 100 local and international institutions, including DENR, PAWB and Conservation International on 206 Conservation Priority Areas (CPAs) and species conservation priorities

collectively known as the Philippine Biodiversity Conservation Priorities (PBCP). The PBCP is considered as the second iteration of the NBSAP.

Key outputs of this includes: (1) re-assessment and updating of the terrestrial and marine biogeographic regions, (2) identification of 206 biodiversity conservation priority areas of which 170 are terrestrial and 36 are marine areas, (3) identification of five strategic actions needed to be implemented in the conservation priority areas, (4) identification of marine and terrestrial biodiversity corridors, and (5) state of the art assessments for each thematic group. The five strategic actions are as follows;

- 1) Harmonize research with conservation needs
- 2) Enhancing and strengthen the protected areas system
- 3) Institutionalize innovative but appropriate biodiversity conservation approaches: the biodiversity corridors
- 4) Institutionalize monitoring and evaluation systems of projects and of biodiversity
- 5) Develop a national constituency for biodiversity conservation in the Philippines

#### **Medium Term Philippine Development Plan (MTPDP) (2011-2016) (2011)**

The Environment and Natural Resources Sector, under the Medium-Term Philippine Development Plan (MTPDP) that is the country's economic development blueprint for the next six years, set three goals as follows: (1) Improved Conservation, Protection and Rehabilitation of Natural Resources, (2) Improved Environmental Quality for a Cleaner and Healthier Environment, and (3) Enhanced Resilience of Natural Systems and Improved Adaptive Capacities of Human Communities to Cope with Environmental Hazards including Climate-Related Risks.

#### **The National Wetland Action Plan for the Philippines (First one in 1993, revised draft one in July 2009)**

The National Wetland Action Plan for the Philippines (NWAPP) was first prepared by the PAWB in 1993. In 2010, the PAWB presented the revised Draft National Wetlands Action Plan in order to promote and implement strategies and actions for the conservation and wise use of its wetlands, incorporating urgent concerns such as biodiversity conservation and climate change mitigation and adaptation. The document provides a framework of strategies and actions for all concerned sectors of the society including government agencies, NGO, business sector, small communities and indigenous people, for the management and wise use of wetlands and their resources for the enjoyment of their benefits by the present and future generations.

#### **Philippine Plant Conservation Strategy and Action Plan (2003)**

The Philippine Plant Conservation Strategy and Action Plan (PPCSAP), which includes ten strategies, was developed by the PAWB and relevant organizations to provide a framework to enhance existing initiatives aimed at plant conservation, and mechanisms to enhance species and ecosystems approaches to the conservation and sustainable use of plant diversity.

## 2.1.4 NGOs

Table 2.1-1 shows major NGOs which are active in natural environmental fields in the Philippines.

**Table 2.1-1 Major NGOs Activity in Natural Environmental Fields**

Name	Fields/ Activities	Contact
Haribon Foundation	Haribon Foundation is one of the country's leading research institutions that specializes in biodiversity conservation with more than 40 specialists. It was founded in 1972 as a bird-watching society. It has made a significant contribution to pioneering initiatives such as the National Integrated Protected Areas System, community-based coastal resource management, and environmental law education and practice, conservation of terrestrial species and habitats, field research on the biodiversity.	2F Santos and Sons Bldg., #973 Aurora Blvd., Cubao, Quezon City Tel: (+632) 434-4642, (+632) 421-1213, (+632) 421-1209 Fax: (+632) 434-4696. Email: <a href="mailto:act@haribon.org.ph">act@haribon.org.ph</a> Website: <a href="http://www.haribon.org.ph">http://www.haribon.org.ph</a>
Kabang Kalikasan ng Pilipinas (World Wide Fund for Nature – Philippines)	WWF-Philippines has been working as a national organization of the WWF network since 1997. WWF-Philippines spearheads practical solutions to help the country adapt to climate change, secure food sources to alleviate poverty, conserve local ecosystems to reap natural benefits, empower communities to live low-impact lives, help corporations develop equitable, low-impact supply chains and promote renewable sources of clean energy.	4th Floor JBD Plaza #65 Barangay Bagong Pag-asa, Mindanao Avenue, Quezon City 1105 Philippines Tel: 920-7931 Fax: 426-3927 Email: <a href="mailto:kkp@wwf.org.ph">kkp@wwf.org.ph</a> Website: <a href="http://www.wwf.org.ph/">http://www.wwf.org.ph/</a>
Conservation International (CI)	CI is one of the world's largest NGOs in biodiversity conservation. In the Philippines it is a partner of the Department of Environment and Natural Resources (DENR) in several initiatives for the conservation of Philippine biodiversity including the Sulu-Sulawesi Seascape and biodiversity hotspots.	6 Maalalahanin St., Teachers Village, Diliman Quezon City - 1101 Website: <a href="http://www.conservation.org">http://www.conservation.org</a>
Environmental Science for Social Change (ESSC)	Environmental Science for Social Change's (ESSC) work is primarily to undertake national scientific and social research that contributes to the broader understanding of the environment. ESSC actively engages with communities, local governments, and national and international institutions in exploring better options for natural resource management, new improved methods in watershed rehabilitation, and creating venues for policy discussions, program implementation, and discussion of community concerns in relation to the environment and natural resource management.	1/f Manila Observatory Building, Ateneo de Manila University Campus, Loyola Heights, Diliman, Quezon City 1108 Philippines Tel. No.: (632) 426.5921 to 22; 920.9063 Fax No: (632) 426.5958 E-mail: <a href="mailto:esscmanila@essc.org.ph">esscmanila@essc.org.ph</a> Website: <a href="http://www.essc.org.ph/">http://www.essc.org.ph/</a>

Source: Country Environmental Analysis 2008: Philippines, ADB (2009), Website of above organizations (Accessed in April 2011)

## 2.2 Flora and Fauna

### 2.2.1 Relevant regulations and policies

#### **Executive Order (EO) No.247 (1995)**

The Philippines was one of the first countries to introduce a regulation to access of Biological and Genetic Resources, with the signing of Executive Order No. 247, "Prescribing a Regulatory

Framework for the Prospecting of Biological and Genetic Resources, their By-Products and Derivatives, for Scientific and Commercial Purposes, and for Other Purposes” in 1995. In 1996, the DAO No.96-20 was issued as the Implementing Rules and Regulations for EO No.247.

Under EO No.247, all bioprospecting activities are subject to research agreements with the government, containing terms for the provision of information and samples, technology cooperation and benefit-sharing. For the collection of biodiversity in areas where local and indigenous communities live, the prior informed consent (PIC) of such communities is required.

**DENR Administrative Order (DAO) No. 2004-15 (2004)**

DAO No. 2004-15 establishes the national list of threatened faunal species that includes 34 species of mammals, 80 species of birds, 18 species of reptiles and 14 species of amphibians. Among the critically endangered are the Tamaraw (*Bubalus mindorensis*) which is endemic to Mindoro and the Philippine Eagle (*Pithecophaga jefferyi*).

**DENR Administrative Order (DAO) No. 2007-01 (2007)**

DAO No.2007-01 established the national list of Threatened Philippine Plants and their categories, and the list of other wildlife species. The DAO also prohibited the collection and trade of species in this list unless a permit is granted by the DENR.

**2.2.2 Endemic species**

The Philippines is one of 17 mega-diversity countries<sup>1</sup> due to its geographical isolation, diverse habitats and high rates of endemism. Table 2.2-1 shows numbers of endemic species in the Philippines.

**Table 2.2-1 Endemism of Philippine Species (2007)**

<b>Taxonomic Group</b>	<b>Species</b>	<b>Endemic Species</b>	<b>Percent Endemism</b>
Plants	9,253	6,091	65.8
Mammals	167	102	61.1
Birds	535	186	34.8
Reptiles	237	160	67.5
Amphibians	89	76	85.4
Freshwater Fishes	281	67	23.8

Source: Conservation International (2007)  
[http://www.conservation.org/explore/priority\\_areas/hotspots/asia-pacific/Philippines/Pages/biodiversity.aspx](http://www.conservation.org/explore/priority_areas/hotspots/asia-pacific/Philippines/Pages/biodiversity.aspx)

**2.2.3 Endangered species**

**2.2.3.1 IUCN Red List in the Philippines**

The International Union for the Conservation of Nature (IUCN) Red Listing is widely recognized as the most comprehensive, objective global approach for evaluating the conservation status of plant

<sup>1</sup> Megadiversity countries, designated by the Conservation International, are a group of countries that harbor the majority of the Earth's species and are therefore considered extremely bio-diverse.

and animal species. It categorizes each species according to its appropriate conservation status being, Extinct (EX), Extinct in the Wild (EW), Critically Endangered (CR), Endangered (EN), Vulnerable (VU), Near Threatened (NT) or Least Concern (LC).

Table 2.2-2 and Table 2.2-3 shows total numbers of threatened species and high threatened status in the endemic species, respectively (The list is shown in Appendix 2-1<sup>2</sup>).

**Table 2.2-2 IUCN Red List Category Summary Totals in the Philippines (version 2010.4)**

Group	Critically Endangered	Endangered	Vulnerable	Total Threatened Species
Animals	45	82	348	475
Plants	55	35	132	222
TOTAL	100	117	480	697

Source: IUCN website (Accessed in April 2011)

**Table 2.2-3 Total Endemic and threatened endemic species in the Philippines (version 2010.4)**

Group	Total Endemics	Threatened Endemics	%
Mammals	111	25	22.5
Birds	196	59	30.1
Amphibians	79	48	60.8
FW Crabs	42	4	9.5
Conifers	3	2	66.7
Cycads	5	5	100.0
TOTAL	436	143	32.8

Source: IUCN website (Accessed in April 2011)

### 2.2.3.2 Red List in the Philippines

The Wildlife Conservation Society of the Philippine (WCSP) published the Philippine Red Data Book in 1997 ((The list is shown in Appendix 2-2). WCSP is a professional organization of wildlife researchers, managers, scientists, and conservationists. The Society was formed to advance wildlife research and conservation in the Philippines through promoting collaborative research, providing technical assistance and training and increasing public awareness. Under the Red Data Book, the following 202 species are categorized. There are no legal safeguard toward these species.

- Shellfish : 7
- Butterfly : 27
- Amphibians : 2
- Reptiles : 10
- Birds : 86
- Terrestrial Mammals : 51
- Marine Mammals : 19

<sup>2</sup> Because the Red List of the Version2010.4 has not been available yet, the previous Red List published in 2007 is shown in the Appendix 2-1.

### 2.2.3.3 Threatened Species by the National Laws

Table 2.2-4 and 2.2-5 shows the threatened fauna and plants that are categorized by DAO No.2004-15 and DAO No.2007-01, respectively. It categorizes each species according to its appropriate conservation status being, Critically Endangered (CR), Endangered (EN), Vulnerable (VU), or Other Threatened (OT). The CR species include all species listed under Appendix 1 of the Convention on International Trade on Endangered Species CITES, and the EN species include all species listed under Appendix II of CITES ((The lists are shown in Appendix 2-3).

**Table 2.2-4 List of Threatened Philippine Fauna and their Categories**

Faunal Species	Critically Endangered*	Endangered**	Vulnerable	Other Threatened Species	Total
Mammals	7	5	17	5	34
Birds	13	13	54	-	80
Reptiles	4	6	4	4	18
Amphibians	-	4	10	-	14
TOTAL	24	28	85	9	148

Source: PAWB Website (Accessed in April 2011)

**Table 2.2-5 Summary of Number of Threatened Philippine plants per Category**

Category	Number of Plant Species
Critically endangered	99
Endangered	187
Vulnerable	176
Other Threatened Species	64
TOTAL	526

Source: PAWB Website (Accessed in April 2011)

### 2.2.3.4 Bonn Convention or Convention on Migratory Species (CMS)

Table 2.2-6 shows the list of migratory species in the Philippines range included in the CMS appendices.

**Table 2.2-6 List of Migratory Species in the Philippine Range included in the CMS Appendices (as of March 2011)**

App	Class	Order	Family	Taxon
I	Mammalia	Cetacea	Balaopteridae	<i>Balaenoptera musculus</i>
I	Aves	Ciconiiformes	Ardeidae	<i>Egretta eulophotes</i>
I	Aves	Ciconiiformes	Threskiornithidae	<i>Platalea minor</i>
I	Aves	Charadriiformes	Laridae	<i>Sterna bernsteini</i>
I	Aves	Charadriiformes	Alcidae	<i>Synthliboramphus wumizusume</i>
I	Mammalia	Cetacea	Delphinidae	<i>Orcaella brevirostris</i>
I	Aves	Charadriiformes	Scolopacidae	<i>Tringa guttifer</i>
I/II	Aves	Charadriiformes	Scolopacidae	<i>Eurynorhynchus pygmeus</i>
I/II	Aves	Passeriformes	Muscicapidae	<i>Acrocephalus sorghophilus</i>
I/II	Reptilia	Testudinata	Cheloniidae	<i>Chelonia mydas</i>
I/II	Reptilia	Testudinata	Cheloniidae	<i>Caretta caretta</i>
I/II	Reptilia	Testudinata	Cheloniidae	<i>Lepidochelys olivacea</i>

App	Class	Order	Family	Taxon
I/II	Pisces (Elasmobranchii)	Lamniformes	Lamnidae	<i>Carcharodon carcharias</i>
II	Mammalia	Cetacea	Delphinidae	<i>Sousa chinensis</i>
II	Mammalia	Cetacea	Delphinidae	<i>Stenella attenuate</i> (SEA populations)
II	Mammalia	Cetacea	Delphinidae	<i>Stenella longirostris</i> (SEA populations)
II	Mammalia	Cetacea	Delphinidae	<i>Orcaella brevirostris</i>
II	Mammalia	Sirenia	Dugongidae	<i>Dugong dugon</i>
II	Aves	Ciconiiformes	Threskiornithidae	<i>Plegadis falcinellus</i>
II	Aves	Charadriiformes	Laridae	<i>Sterna albifrons</i>
II	Reptilia	Crocodylia	Crocodylidae	<i>Crocodylus porosus</i>
II	Pisces (Elasmobranchii)	Orectolobiformes	Rhincodontidae	<i>Rhincodon typus</i>
II	Pisces (Elasmobranchii)	Lamniformes	Lamnidae	<i>Isurus oxyrinchus</i>
II	Pisces (Elasmobranchii)	Swualiiformes	Squalidae	<i>Squalus acanthias</i> (Northern Hemisphere populations)
II	Insecta	Lepidoptera	Danaidae	<i>Danaus plexippus</i>

Appendix I – Endangered migratory species, Appendix II – Migratory species conserved through agreements  
Source: CMS website (Accessed in April 2011)

#### 2.2.3.5 CITES Listing

The Table 2.2-7 shows number of species living in the Philippines categorized in Appendix I of CITES Listing (The list is shown in Appendix 2-4).

**Table 2.2-7 Number of the Philippine Fauna and Flora under CITES Appendix I**

Class	No. of species
Mammalia	10
Aves	11
Reptilia	9
Insecta	1
Flora	13
TOTAL	44

Source: CITES Website (Accessed in April 2011)

#### 2.2.4 Problems and Analysis

The Philippines is one of the megadiversity countries due to its diverse habitats and high rates of endemism. However on the other hand, it is also one of the world's hotspots, with a large number of endangered and threatened species. Currently, the Philippines ranks second on the list of Asian countries having the highest percentage of threatened and extinct species. Moreover the numbers of these species has been increasing. According to the IUCN Red list, the total number of Critically Endangered, Endangered and Vulnerable species that includes both animals and plants increased from 466 to 697 for three years from 2007 to 2010. This is mainly because the habitats of them are under tremendous threat due to increasing human population and the demands of the economic growth, as well as anthropogenic activities.

## 2.3 Biodiversity

### 2.3.1 Relevant Regulations and Policies

#### **NIPAS Act and its Relevant Orders**

Republic Act No.7586 (1992) otherwise known as the National Integrated Protected Areas System (NIPAS) Act of 1992 provides the legal framework for the establishment and management of protected areas in the Philippines. The Law defines protected areas as the identified portions of land and/or water set aside by reason of their unique physical and biological significance, managed to enhance biological diversity and protected against destructive human exploration.

It is implemented originally through DENR Administrative Order No. 25, Series of 1992. The said DENR Administrative Order was amended pursuant to DAO 2008-26 dated 24 December 2009. This Administrative Order sets the procedures for the establishment, administration, management and development of the System.

There are eight categories of protected areas under the NIPAS as follows.

**Table 2.3-1 Categorization of Protected Areas under the NIPAS**

Category		Features
1.	Strict Nature Reserve (SNR)	SNR is an area possessing some outstanding ecosystem, features and/or species of flora and fauna of national scientific importance, maintained to protect nature and maintain processes in an undisturbed state in order to have ecologically representative examples of the natural environmental monitoring, education and for maintenance of genetic resources in a dynamic and evolutionary state.
2.	Natural Park (NP)	NP is a relatively large area not materially altered by human activity where extractive resource uses are not allowed and which are maintained to protect outstanding natural and scenic areas of national or international significance for scientific, educational and recreational use.
3.	Natural Monument/ Natural Landmark (NM/NL)	NM/NL is a relatively small area focused on protection of small features to preserve nationally significant natural features on account of their special interest or unique characteristics.
4.	Wildlife Sanctuary (WS)	WS comprises an area which assures the natural conditions necessary to protect nationally significant species, groups of species, biotic communities or physical features of the environment where these may require specific human manipulation for their perpetuation.
5.	Protected Landscape and Seascapes (PL/S)	PL/S are areas of national significance which are characterized by the harmonious interaction of man and land while providing opportunities for public enjoyment through recreation and tourism within the normal lifestyles and economic activity of these areas.
6.	Resource Reserve (RS)	RS is an extensive and relatively isolated and uninhabited area normally with difficult access designated as such to protect natural resources of the area for future use and prevent or contain development activities that could affect the resources pending the establishment of objectives which are based upon appropriate knowledge and planning.
7.	Natural Biotic Areas/ Anthropological Reserve	Natural Biotic Areas/Anthropological Reserve is an area set aside to allow the way of life of societies living in harmony with the environment to adopt to modern technology at their pace.
8.	Other categories	This refer to those areas established by law, conventions or international agreements which the Philippine Government is a signatory.

Source: DENR Memorandum Circular No.2004-09 (2004)

Under the NIPAS (DAO No.2008-26), the following acts are prohibited within protected areas;

- Hunting, destroying, disturbing, or mere possession of any plants or animals or products derived from the protected areas without a permit from the Management Board;
- Dumping of any waste products detrimental to the protected area, or to the plants and animals or inhabitants therein;
- Use of any motorized equipment without as permit from the Management Board;
- Mutilating, defacing or destroying objects of natural beauty, or objects of interest to cultural communities (of scenic value);
- Damaging and leaving roads and trails in a damaged condition;
- Squatting or otherwise occupying any land;
- Mineral locating within protected areas;
- Constructing and maintaining any kind of structure, fence or enclosures, conducting any business enterprise without permit;
- Leaving in an exposed or unsanitary conditions refuse or debris, or depositing in ground or in bodies of water; and
- Altering, removing, destroying or defacing boundary mark or signs.

Each protected area shall have a Management Plan prepared by inter-disciplinary team of experts led by the DENR Regional Office. Each area shall be divided into two management zones; strict protection zone and multiple use zone consistent with its designated category.

- Strict Protected Zone (SPZ); comprise natural areas with high biodiversity value, closed to all human activities except for scientific studies and/or ceremonial or religious use by the ICCs/IPs.
- Multiple Use Zone (MUZ); comprise areas where the following may be allowed consistent with the protected area management plan: settlement, traditional and/or sustainable land-use, including agriculture, agro-forestry, and other income generating or livelihood activities.

For each protected area, there shall be established peripheral buffer zone when necessary. Prescription for the management of buffer zones shall be included as component of the management plan of each protected area.

Proposal for activities which are outside the scope of the management plan for protected areas shall be subject to an environmental impact assessment as required by law before they are adopted, and the results thereof shall be taken into consideration in the decision-making process. No actual implementation of such activities shall be allowed without the required Environment Compliance Certificate (ECC) under the Philippine Environment Impact Assessment (EIA) System.

According to the DENR<sup>3</sup>, NIPAS-designated PAs to a large part overlap with ancestral domain claims of indigenous peoples (IPs) recognized under the Indigenous People's Rights Act (Republic Act No. 8371) of 1997. The procedure for PA establishment is independent of the process of ancestral domain recognition and titling. Under a Joint Memorandum Circular No. 2007-01 issued

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<sup>3</sup> Assessing Progress Towards the 2010 Biodiversity Target: The 4th National Report to the Convention on Biological Diversity, DENR, (2009)

by DENR and the National Commission on the Indigenous Peoples (NCIP), DENR should closely coordinate with local IPs in the delineation of PA boundaries that overlap with ancestral domain claims. The circular also facilitates the harmonization of the PA management plan and the Ancestral Domain Sustainable Development and Protection Plan (ADSDPP) that is prepared by the IPs. IPs “shall have primary responsibility to maintain, develop protect, and conserve such overlapped areas” with assistance from DENR. IPs may decide to transfer management responsibility to “concerned government agencies” (there is no specific reference to the PAMB), but this is only for a temporary period and the primary management responsibility will eventually revert back to the IP claimants.

### 2.3.2 Distribution condition of ecosystems and those features

#### 2.3.2.1 Agricultural Biodiversity

Agricultural biodiversity is a broad term that includes all components of biological diversity of relevance to food and agriculture, and all components of biological diversity that constitute the agricultural ecosystems, also named agro-ecosystems. However there are no actual figures for agro-biodiversity decline or gain in the country due to the absence of national indicators as well as lack of monitoring, there is a general recognition of the loss of genetic resources important to agriculture in the country as stated in both the plant and animal genetic resources reports prepared for FAO. Several studies and reports recognize various threats to agricultural biodiversity yet few systematically quantify these threats. Indirect drivers of agrobiodiversity loss are: 1) increase demand for food, land, and other agro-based resources; 2) the pursuit of economic growth through intensive agriculture, export-oriented policies and promotion of potentially environment-damaging extractive industries such as mining; 3) lifestyle change of farmers brought about by urbanization; and, 4) inherent institutional problems of concerned government agencies in conserving agrobiodiversity. Direct drivers include: 1) habitat destruction via conversion of agricultural land to other uses; 2) the possible negative impacts of biotechnology; 3) natural calamities or extreme weather events associated with climate change; and, 4) introduction of invasive alien species, pests and diseases

#### 2.3.2.2 Inland Waters Biodiversity

As shown in the Table 2.3-2, however statistical data of inland waters is different between NBSAP and PBCP, there are variety of inland waters in the Philippines including 211 lakes varying from .01 sq km to 900 sq km, 421 principal river basins, marshes, swamps and reservoirs. These areas host aquaculture production, irrigation, transportation and many other uses such as for household, recreation, and industry.

Inland waters are home to a more than 316 fish species. Fishbase records as of 2008 show that there are about 121 endemic and 76 threatened freshwater species. Other than fish, other species that depend on these habitats are waterbirds, semi-aquatic species like the highly endangered Philippine crocodile (*Crocodylus mindorensis*), plants, and a majority of amphibians.

Inland waters are the most threatened of all ecosystem types. In the Philippines, it is identified that

pollution from domestic (33%), industrial (27%), agricultural (29%) and non-point sources (11%) as the major reason for biodiversity loss in inland waters<sup>4</sup>. Other threats include habitat loss and degradation; (b) resource use and exploitation; (c) climate change; and, (d) alien invasive species. Introduction of invasive alien species has also caused near-extinction of local endemic species. Diversion of rivers for irrigation and dam construction has also affected movement of migratory fish species, changed the habitat of riverine flora and fauna, and dried rivers. Population pressure remains one of the biggest threats.

The PBCP prioritized 34 inland water bodies for research and conservation.

**Table 2.3-2 Major types of inland wetlands in the Philippines.**

Major types of freshwater ecosystem	Number by NBSAP	Number by PBCP	Examples
<b>NATURAL</b>			
Lakes	78	211	Laguna de Bay, Lake Lanao, Taal Lake, Mainit Lake, Naujan Lake
Major rivers and riverine systems	421	18 (major rivers only)	Cagayan River, Agusan River, Agno River, Pampanga River
Major swamps/marshes	4-8	22 (including reservoirs)	
Bays, estuaries, and mudflats	Numerous	No data provided	Manila de Bay, Calancan Bay
<b>MAN-MADE</b>			
Major Reservoirs/dams	6 large 54 small		Magat, Pantabangan, Angat, Ambuklao, Palangui IV, La Mesa

Source: "Philippine Biodiversity: Principles and practice," by Catibog-Sinha and Heaney (2006); copyright Haribon Foundation for the Conservation of Natural Resources, Inc.

### 2.3.2.3 Coastal, Marine and Island Biodiversity

The Philippines is located within the coral triangle, at the center of the highest marine diversity. Its vast, rich and diverse coastal and marine resources are composed of coral reefs, seagrass beds, mangrove and beach forests, fisheries, invertebrates, seaweeds, marine mammals and many others. It is reported that species diversity recorded by various authors indicate that there are 468 scleractinian corals, 1,755 reef-associated fishes, 648 species of mollusks, 19 species of seagrass and 820 species of algae in the 4th National Report to the Convention on Biological Diversity (2009). A declining trend in the state of most coastal and marine ecosystems in the Philippines also reported due to such factors as overfishing, destructive and illegal fishing activities, increase in population and human settlements near coastal areas, infrastructure development and pollution.

#### Coral Reefs

According to the Environment Monitor 2005, coral reefs in the Philippines which cover an estimated area of 27,000 sq km are widespread and can be found throughout virtually the entire archipelago,

<sup>4</sup> Ong, P.S., L.E. Afuang, and R.G. Rosell-Ambal (eds.) 2002. Philippine biodiversity conservation priorities: A second iteration of the national biodiversity strategy and action plan. DENRPAWB, CI-Philippines, Biodiversity Conservation Program (BCP) – University of the Philippines Center for Integrative and Development Studies (UPCIDS) and Foundation for the Philippine Environment (FPE), Quezon City, Philippines. Ong et al, 2002, and the EMB (2006)

except perhaps in some areas of north and south-central Mindanao and east of northern Luzon.. However the general trend is negative for the coral reefs in the Philippines. A recent international analysis of coral reef status found that the Philippines had the most degraded reefs of all sampled countries. This study estimated that 98 percent of coral reefs in the Philippines were at risk from human activities such as overfishing, destructive fishing practices and coastal development, with 70 percent at high or very high risk.

Mangroves

According to the 4th National Report on the CBD, there has been significant decline in mangrove forest cover from 450,000ha in 1918 to about 120,000ha in 1995. The greatest threat to mangrove forests is conversion to agriculture, aquaculture, saltponds, human settlements and coastal development. Mangrove species are also widely used for fuel, charcoal and manufacture of poles and piles. Despite the ban imposed by the government on mangrove conversion and cutting, mangroves continue to be cleared.

The DENR thrusts in the MTPDP 2004-2010 included protecting and replanting of about 10,500 hectares of mangrove. Mangrove reforestation and afforestation activities are ongoing in several areas such as in Palawan, Sulu and Central Visayas, including Negros, Bohol and Cebu.

Seagrasses

The Philippines has the second highest seagrass diversity in the world, second only to Australia. It contributes about 19 species or about 55% of the number of species in East Asia. According to the 4th National Report on the CBD, the seagrasses cover about 27,282 km<sup>2</sup> in 2008. However it is reported that about 30-40% of seagrass areas in the Philippines have been lost in the last 50 years. Seagrass communities have been destroyed due to sedimentation of pollution, oil pollution, eutrophication, dredging, tourism development and unsustainable fishing practices.

In 2007, the Philippine National Seagrass Committee published the Philippine National Seagrass Conservation Strategy and Action Plan (NSCS), in which five major areas action have been identified, namely: 1) research and monitoring; 2) national policy, legal and institutional arrangements and coordination; 3) public awareness, communication and education; 4) capacity building and sustainability; and, 5) resource and habitat management.

**2.3.3 Designated areas under the NIPAS**

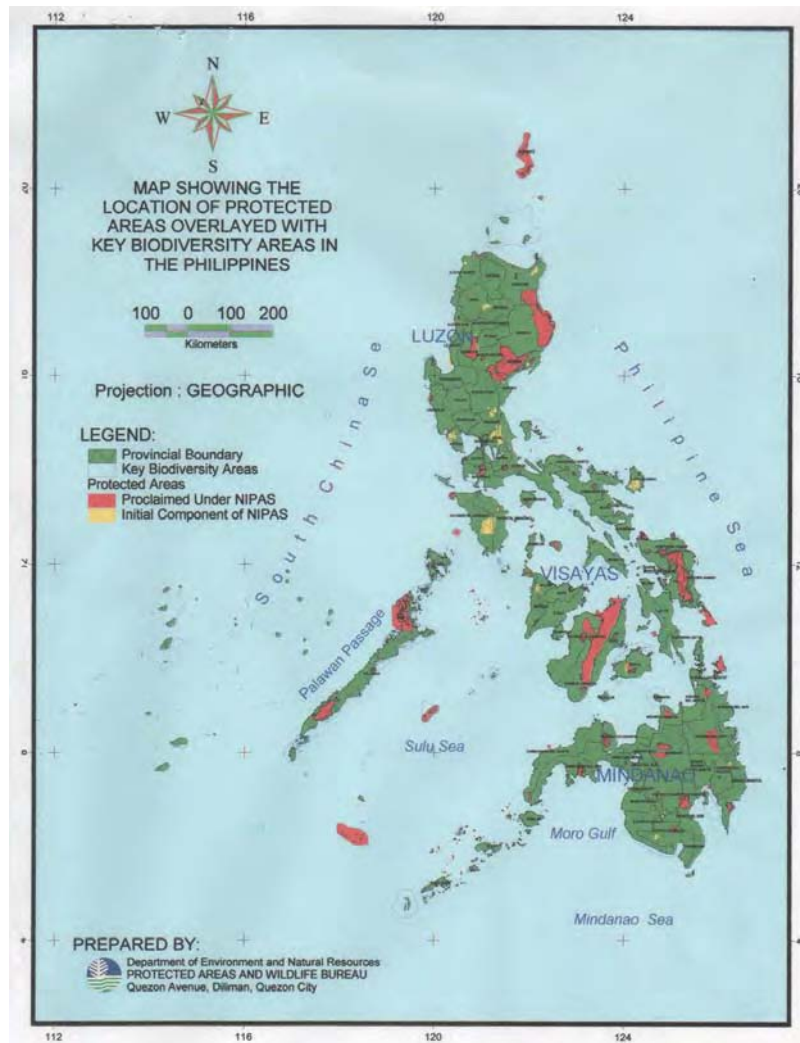
As of 2008, there are 234 Protected Areas (PAs) under the National Integrated Protected Areas System (NIPAS) covering a total area of about 5.34 million hectares and a buffer zone of 0.22 million hectares. Terrestrial PAs occupy a total of 3.98 million hectares and a buffer zone of 0.20 million hectares while marine PAs cover about 1,38 million hectares and a buffer zone of about 0.02 million hectares (DENR-PAWB, June 2011).

**Table 2.3-3 List of Proclaimed Protected Areas under the NIPAS (As of June 2011)**

Region	Terrestrial			Marine			Total		
	No.	PA (ha)	BZ (ha)	No.	PA(ha)	BZ(ha)	No.	PA(ha)	BZ(ha)
CAR	7	141,427	-	0	-	-	7	141,427	-

Region	Terrestrial			Marine			Total		
	No.	PA (ha)	BZ (ha)	No.	PA(ha)	BZ(ha)	No.	PA(ha)	BZ(ha)
1	13	12,570	3,330	1	10,513	136	14	23,083	3,466
2	14	991,092	-	1	7,415	-	15	980,851	-
3	22	219,422	-	1	7,568	-	23	226,990	-
4-A	17	134,306	-	3	430	-	20	134,736	-
4-B	15	1,181,426	-	8	402,072	11,677	23	1,583,498	11,677
NCR	1	23	-	-	-	-	1	23	-
5	11	57,798	-	14	710	-	25	58,508	-
6	12	185,332	169	2	33,143	-	14	218,475	169
7	7	84,773	-	12	10,322	-	19	95,095	-
8	7	346,723	125,400	4	106,440	-	11	453,163	125,400
9	6	20,927	8,693	7	273,040	7,900	13	293,966	16,593
10	8	101,662	50,554	4	1,596	800	12	103,258	51,355
11	7	64,447	9,615	3	27,306	-	10	91,753	9,615
12	4	167,170	-	1	215,950	-	5	383,120	-
ARMM	10	184,298	-	1	-	-	11	184,298	-
13	5	90,526	4,361	6	278,914	-	11	369,440	4,361
合計	166	3,983,920	202,122	68	1,375,420	20,513	234	5,341,683	222,635

Note: PA: Protected Area, BZ: Buffer Zone, Source: PAWB, DENR (June, 2011)



Source: PAWB, DENR (June, 2011)

**Figure 2.3-1 Protected Areas under the NIPAS (As of June 2011)**

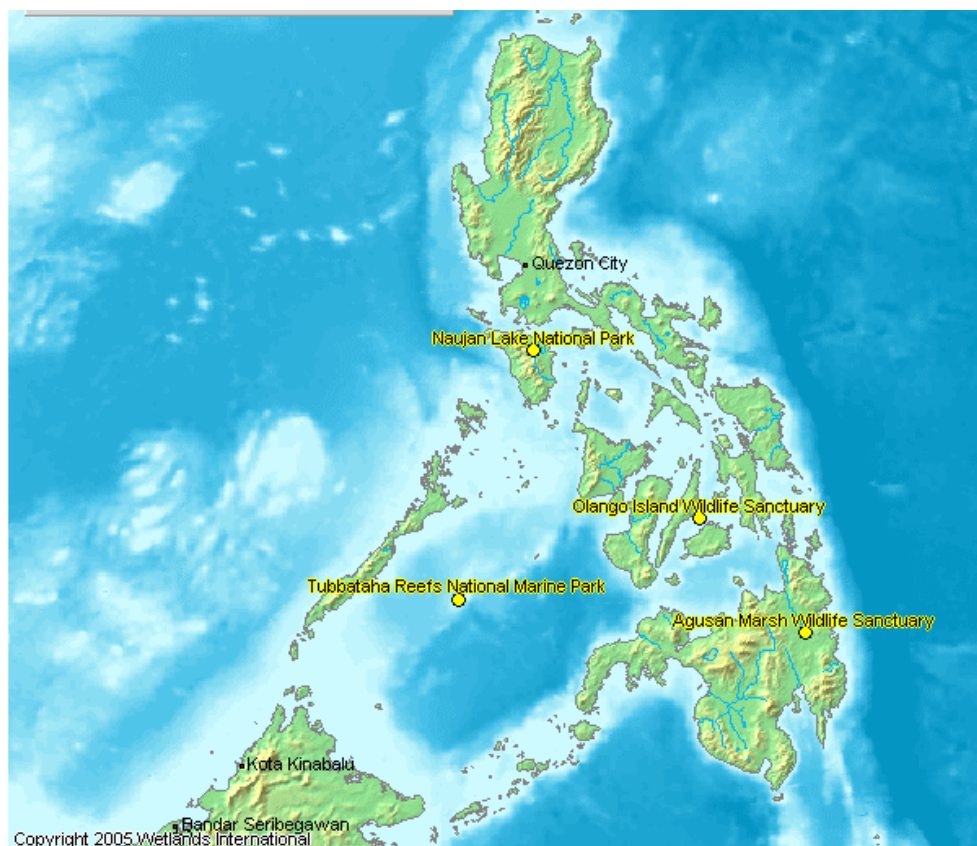
#### 2.3.4 Designated areas under the International treaties

The Convention on Wetlands of International Importance (Ramsar, Iran, 1971), otherwise known as the Ramsar Convention is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. The wise use of wetlands is defined as "the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development". Among the 1,926 sites, 187,984,550 hectares designated as Ramsar Sites, four Ramsar Sites are located in the Philippines as follows (as of 07 April 2011).

**Table 2.3-4 Ramsar Sites in the Philippines (as of 07 April 2011)**

Ramsar Site	date of designation	Region	Area (ha)
Agusan Marsh Wildlife Sanctuary	12/Nov/99	Mindanao	14,836
Naujan Lake National Park	12/Nov/99	Oriental Mindoro	14,568
Olango Island Wildlife Sanctuary	01/Jul/94	Cebu	5,800
Tubbataha Reef National Marine Park	12/Nov/99	Sulu Sea	96,828
Total			132,032

Source: The website of the Ramsar Convention on Wetlands (As of 07 April 2011)

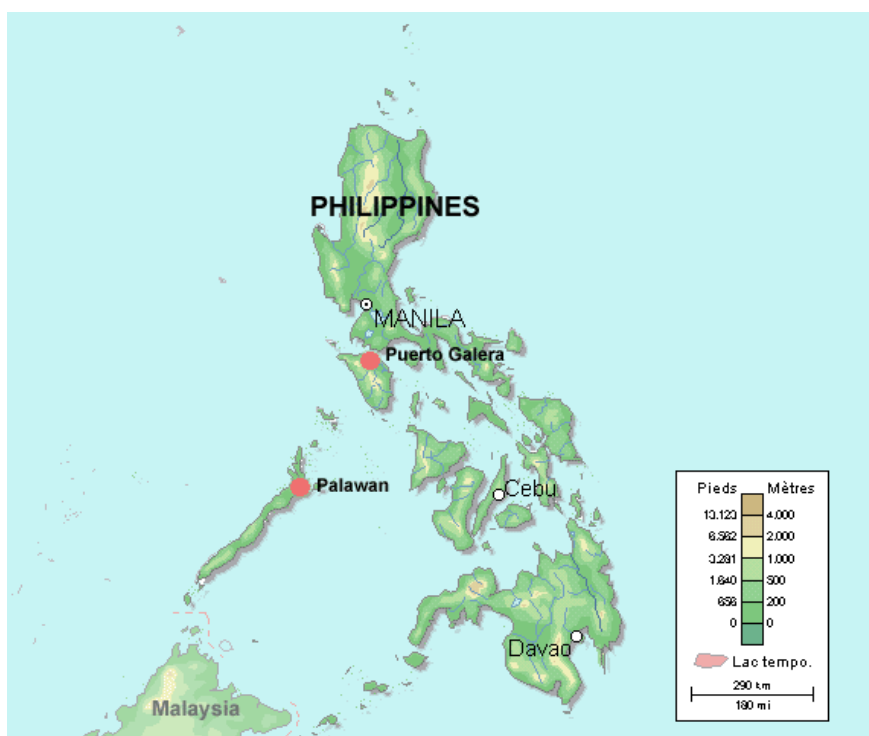


Source: The website of the Wetlands International (<http://www.wetlands.org/>) (Accessed in April 2011)

**Figure 2.3-2 Map of the Ramsar Sites in the Philippines**

### 2.3.5 Biosphere Reserve

Under the Man and Biosphere Program of the UNESCO, two sites of the Biosphere Reserve are defined in the Philippines as follows.



Source: UNESCO (<http://www.unesco.org/mabdb/br/brdir/asia/Philippinesmap.htm>) (Accessed in May 2011)

**Figure 2.3-3 Biosphere Reserve in the Philippines**

(1) Puerto Galera

Puerto Galera Biosphere Reserve is situated on Mindoro Island, which covers 23,200 hectares. Ecosystems represented here are savannas and grasslands, dipterocarp forests, mossy forests, mangrove, coral reefs and coastal ecosystems as well as agroforestry systems. A wide variety of endemic species are present, including tamaraw (*Bubalus mindorensis*). Today, the rapid and unregulated development of the tourist sector, which also led to population and economic growth, is the biggest problem of Puerto Galera.

(2) Palawan

The Palawan Biosphere Reserve covers 1,150,800 hectares which include the entire Province of Palawan Island. This biosphere reserve also includes two World Heritage sites. The biosphere reserve comprises diverse habitat types such as coral reef atolls, mangroves and forests. In 1992, a Strategic Environment Plan for Palawan (SEP) was adopted which is a comprehensive framework to enhance the sustainable development of the region considering the ecological viability and the social acceptability, in an integrated approach. Therefore, the SEP Clearance is needed if the development projects are to be conducted in the Palawan Island.

## 2.3.6 Other important areas for biodiversity

### 2.3.6.1 Important Bird Areas

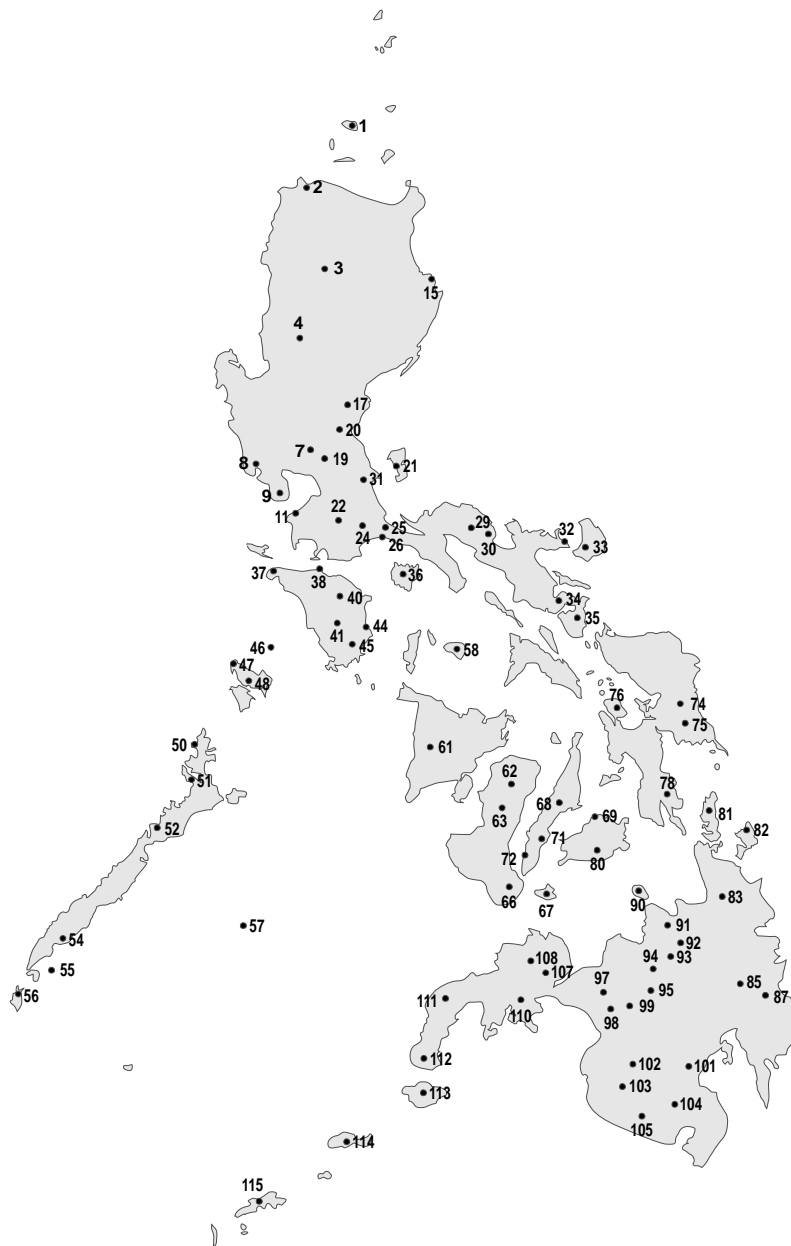
The Important Bird Areas Program (IBAs) is a global effort to identify and conserve areas that are vital to birds and other biodiversity coordinated by the Bird Life International. The selection of IBAs has been a particularly effective way of identifying conservation priorities. The selection of IIBAs is achieved through the application of quantitative ornithological criteria as follows;

- The site is known or thought regularly to hold significant numbers of a globally threatened species, or other species of global conservation concern.
- The site is known or thought to hold a significant component of a group of species whose breeding distributions define an Endemic Bird Area (EBA) or Secondary Area (SA).
- The site is known or thought to hold a significant component of the group of species whose distributions are largely or wholly confined to one biome.
- The site is known or thought to hold 1% of a biogeographic population of a congregatory waterbird species (or seabird or terrestrial species), or 20,000 waterbirds (or 10,000 pairs of seabirds) of one or more species, or to exceed thresholds set for migratory species at bottleneck sites.

There are 117 IBAs in the Philippines as follows.

- |   |  |
|---|--|
| 1 Batanes Islands                                   | 60 North-west Panay peninsula (Pandan)       |
| 2 Kalbario-Patapat National Park                    | 61 Central Panay mountains                   |
| 3 Balbalasang-Balbalan National Park                | 62 Mount Silay and Mount Mandalagan          |
| 4 Mount Pulag National Park                         | 63 Mount Canlaon National Park               |
| 5 Zambales mountains                                | 64 Ban-ban                                   |
| 6 Camp O' Donnel                                    | 65 Hinoba-an                                 |
| 7 Candaba swamp                                     | 66 Cuernos de Negros                         |
| 8 Bataan Natural Park and Subic Bay Forest Reserve  | 67 Mount Bandila-an                          |
| 9 Mariveles mountains                               | 68 Tabunan                                   |
| 10 Manila Bay                                       | 69 Olango Island                             |
| 11 Mounts Palay-Palay-Mataas Na Gulod National Park | 70 Mactan, Kalawisan and Cansaga Bays        |
| 12 Buguey wetlands                                  | 71 Nug-as and Mount Lantoy                   |
| 13 Mount Cagua                                      | 72 Mount Kangbulagsing and Mount Lanaya      |
| 14 Mount Cetaceo                                    | 73 Mount Cabalantian-Mount Capoto-an complex |
| 15 Northern Sierra Madre Natural Park               | 74 Mount Yacgun-Mount Sohoton complex        |
| 16 Central Sierra Madre mountains                   | 75 Southern Samar mountains                  |
| 17 Maria Aurora Memorial Park                       | 76 Biliran and Maripipi Islands              |
| 18 Mount Dingalan                                   | 77 Anonang-Lobi range                        |
| 19 Angat watershed                                  | 78 Mount Nacolods                            |
| 20 Mount Irid - Mount Angilo                        | 79 Calituban and Tahong-tahong Islandss      |
| 21 Polillo Islands                                  | 80 Rajah Sikatuna National Park              |
| 22 Mount Makiling                                   | 81 Mount Kambinlio and Mount Redondo         |
| 23 University of the Philippines Laguna Land Grants | 82 Siargao Island                            |
| 24 Mount Banahaw-San Cristobal National Park        | 83 Mount Hilong-hilong                       |
| 25 Quezon National Park                             | 84 Mount Diwata range                        |
| 26 Pagbilao and Tayabas Bay                         | 85 Agusan marsh                              |
| 27 Lalaguna marsh                                   | 86 Bislig                                    |
| 28 Ragay Gulf                                       | 87 Mount Agtuuganon and Mount Pasion         |
| 29 Mount Labo                                       | 88 Mount Puting Bato-Kampalili-Mayo complex  |
| 30 Mount Kulasi                                     | 89 Tumadgo peak                              |
| 31 Mount Isarog National Park                       | 90 Camiguin Island                           |
| 32 Caramoan peninsula                               | 91 Mount Balatukan                           |
| 33 Catanduanes Watershed Forest Reserve             | 92 Mount Kaluayan - Mount Kinabalian complex |

- |  |                                     |
|--|-------------------------------------|
| 34 Bacon-Manito                                | 93 Mount Tago range                 |
| 35 Bulusan Volcano National Park               | 94 Mount Kitanglad                  |
| 36 Central Marinduque                          | 95 Kalatungan mountains             |
| 37 Mount Calavite                              | 96 Munai / Tambo                    |
| 38 Puerto Galera                               | 97 Lake Lanao                       |
| 39 Mount Halcon                                | 98 Mount Piagayungan                |
| 40 Lake Naujan                                 | 99 Butig mountains                  |
| 41 Iglit - Baco mountains                      | 100 Mount Sinaka                    |
| 42 Siburan                                     | 101 Mount Apo                       |
| 43 Malpalon                                    | 102 Liguasan marsh                  |
| 44 Bogbog, Bongabong and Mount Hitding         | 103 Mount Daguma                    |
| 45 Mount Hinunduang                            | 104 Mount Matutum                   |
| 46 Apo Reef Marine Natural Park                | 105 Mount Busa-Kiamba               |
| 47 Calauit Island                              | 106 Mount Latian complex            |
| 48 Busuanga Island                             | 107 Mount Malindang                 |
| 49 Culion Island                               | 108 Mount Dapiak-Mount Paraya       |
| 50 El Nido                                     | 109 Mount Sugarloaf                 |
| 51 San Vicente - Taytay - Roxas forests        | 110 Mount Timolan                   |
| 52 St Paul' s Subterranean River National Park | 111 Lituban-Quipit watersheds       |
| 53 Victoria and Anapalan ranges                | 112 Pasonanca watershed             |
| 54 Mount Mantalingajan                         | 113 Basilan Natural Biotic Area     |
| 55 Ursula Island                               | 114 Mount Dajo National Park        |
| 56 Balabac Island                              | 115 Tawi-tawi Island                |
| 57 Tubbataha reef                              | 116 Simunul and Manuk Manka Islands |
| 58 Mount Guiting-guiting Natural Park          | 117 Sibutu and Tumindao Islands     |
| 59 Balogo watershed, Tablas Island             |                                     |



Source: Birdlife International

**Figure 2.3-4 Important Bird Areas (IBA) in the Philippines**

### 2.3.6.2 Key Biodiversity Areas (KBAs)

In 2006, terrestrial Key Biodiversity Areas (KBAs) were identified by using data from IBAs, the 2004 IUCN Red List, as well as point locality data from published literature, experts and scientists, and museum collections. A total of 128 terrestrial KBAs have been identified for 209 globally threatened and 419 endemic species of freshwater fishes, amphibians, reptiles, birds and mammals, and 62 congregatory bird species. 66 marine KBAs are being proposed as priority areas that need research and management interventions.

An interesting analysis by DENR shows that Protected Areas cover only 51% of the Conservation

Priority Areas under the PBCP, 44% of the IBAs, and 35% of terrestrial KBA<sup>5</sup>.

### 2.3.6.3 Marine Protected Areas (MPAs)

Marine Protected Areas (MPAs) are legally established through Republic Act 7586 or the NIPAS Act or through Republic Act No.8550 (Fisheries Code) of 1998 via local ordinance. The number of MPAs, majority of which are under the category of reserves, sanctuaries or parks, increased from 439 (existing) and 139 (proposed) in 1997 to an estimated 1,169 (existing) and 164 (proposed) MPAs as of 2007.

### 2.3.7 Problems and Analysis

The Philippines has made significant strides and gains in biodiversity-related policies, programs, projects and activities in this decade. The Philippines has set 2010 biodiversity target: “Achieving by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on earth”. However, assessing the country’s progress towards meeting the 2010 biodiversity target has been a challenging task in the absence of nationally agreed baselines, targets and indicators.

In the Philippines both number of terrestrial protected areas and MPAs have increased. For example, the proportion of terrestrial protected areas to total land area has increased from 8.5% in 1992 to 13.8% in 2008. This translates to increased protection of biological diversity. Moreover, integrated development and management plans were prepared for various priority area to address the problem of multiple users, multiple resource uses, and degraded ecosystems. However, questions have been raised about the management quality and problems of implementation have surfaced due to conflicting mandates, overlapping jurisdictions and lack of funds.

## 2.4 Forest

### 2.4.1 Relevant Regulations and Policies

#### **Presidential Decree No.705 (1975): Revised Forestry Code of the Philippines**

The principal law governing forest management in the country is PD 705 otherwise known as the “Revised Forestry Code of the Philippines”. The Code adopted the following policies:

- The multiple use of forest lands to be oriented to the development and progress requirements of the country, advancement of science and technology, and public welfare.
- Land classification and survey to be systematized and hastened.
- Establishment of wood processing plants to be encouraged and rationalized.
- The protection, development, and rehabilitation of forest land to be emphasized to ensure their continuity in productive condition.

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<sup>5</sup> Assessing Progress Towards the 2010 Biodiversity Target: The 4th National Report to the Convention on Biological Diversity, DENR, (2009)

**Relevant regulation of CBFM (EO No.263, DAO No.96-29, DAO No.2004-29)**

EO No.263 (1995) declares community-based forest management (CBFM) as the country’s national strategy to ensure the sustainable development of the country’s forestlands resources and providing mechanisms for its implementation. The implementing guidelines of the EO No.263 are embodied in DAO No.96-29, which was revised in 2004 through DAO No.2004-29.

These regulations identify forest communities—both upland migrant communities and indigenous peoples, to be represented by their respective people’s organizations (POs)—as legitimate resource managers of the nation’s forests. The policy includes the mechanism for legitimizing resource access and use rights through the issuance of long-term tenurial instruments, particularly the Community-Based Forest Management Agreement (CBFMA) for upland migrant communities, and the Certificate of Ancestral Domain Claim (CADC) for indigenous peoples. The PO, jointly with the CENRO and LGU, shall prepare a five-year work plan, that contains the baseline information, detailed strategies, activities and targets for five years on protection, rehabilitation development and resource utilization, organizational strengthening, financing, marketing and enterprise development.

**DENR Administrative Order No.99-53; Regulation on the Integrated Forest Management Program (1999)**

DAO No.99-35 provides regulations governing the Integrated Forest Management Agreement (IFMA) that is a production sharing contract entered into by and between the DENR and a qualified applicant wherein the DENR grants to the latter the exclusive right to develop, manage, protect and utilize a specified area of forestland and forest resources therein for a period of 25 years and may be renewed for another 25-year period, consistent with the principle of sustainable development and in accordance with an approved Comprehensive Development and Management Plan (CDMP) and under which both parties share in its produce.

**2.4.2 General Information, Approaches and Problems**

The Philippines’ total land area of about 30 million hectares is legally classified as alienable and disposable land and forestland. As shown in the Table 2.4-1, there are forest land covered 15.81 million ha or 53% in 2009. On the other hand, according to the FAO statistic<sup>6</sup>, actual forest land area is around 7.7 million ha or 26%.

**Table 2.4-1 Land Classification in the Philippines (2009)**

<b>Land Classification</b>	<b>Area (ha)</b>	<b>% of Area</b>
Alienable and Disposable Land	14,194,675	47.32
Forest Land	15,805,325	52.68
Unclassified Forest Land	755,009	2.52
Classified Forest Land	15,050,316	50.17
Established Timberland	10,056,020	33.52
Established Forest Reserves	3,270,146	10.90
National parks/ Game Refuge and	1,340,997	4.47

<sup>6</sup> State of the World's Forests 2011, FAO (2011)

<b>Land Classification</b>	<b>Area (ha)</b>	<b>% of Area</b>
Bird Sanctuaries / Wilderness Area		
Civil Reservations	126,130	0.42
Military Reservations	165,946	0.55
Fishponds	91,077	0.30
<b>TOTAL</b>	<b>30,000,000</b>	<b>100.00</b>

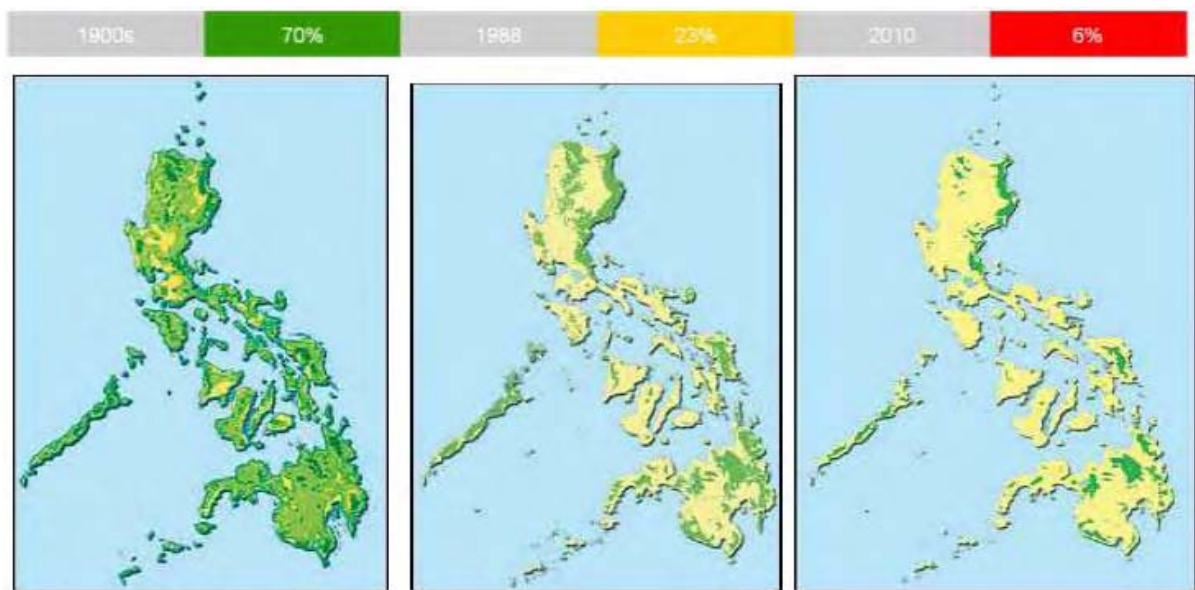
Source: 2009 Philippine Forestry Statistics, FMB website (Accessed in April 2011)

**Table 2.4-2 Land Classification by Province (2009)**

<b>Region</b>	<b>Total Area</b>	<b>Forest Land</b>	<b>% of Forest Land</b>
CAR	1,829,368	1,487,023	81.29
Region 1	1,284,019	473,097	36.85
Region 2	2,687,517	1,714,695	63.80
Region 3	2,147,036	942,387	43.89
NCR	63,600	15,368	24.16
Region 4-A	1,622,861	570,913	35.18
Region 4-B	2,745,601	1,747,038	63.63
Region 5	1,763,249	541,189	30.69
Region 6	2,022,311	604,333	29.88
Region 7	1,489,077	524,908	35.25
Region 8	2,143,169	1,118,214	52.18
Region 9	1,599,734	837,274	52.34
Region 10	1,714,803	897,134	52.32
Region 11	1,967,183	1,229,550	62.50
Region 12	1,874,946	1,144,400	61.04
Region 13	1,884,697	1,339,800	71.09
<b>TOTAL</b>	<b>30,000,000</b>	<b>15,805,325</b>	<b>52.68</b>

Source: 2009 Philippine Forestry Statistics, FMB website (Accessed in April 2011)

In the beginning of the 20th Century, more than 70 % of the land (23 million ha) was covered by forest. However, as shown in the Figure 2.4-1, large scale deforestation, mining development and dissemination of swidden agriculture from 1960s brought drastic decrease of forest land area. Especially commercial deforestation had a much greater impact on the forest area and the Philippines lost 0.2 million ha or forest area per a year in 1970s and 1980s.



Source: the 4th National Report on the CBD, DENR (2010)

**Figure 2.4-1 Forest loss in the 20th century**

Large scale deforestation brought various social problems such as sediment runoff, decline of land productivity and frequent flood. Therefore, the Philippines Government has introduced variety of afforestation program for conservation of forest resource and rehabilitation of degraded land since the late 1970s. Since 1995, the Community-based Forest Management (CBFM) has been adopted to manage forest area by local community who made Community Based Forest Management Agreement (CBFMA) with DENR for production sharing for a period of 25 years. As shown in the Table 2.4-3, 1,790 of CBFMA has been achieved between DENR and people's organizations (POs), that covers around 1.63 million ha in 2009.

Another approach is reforestation. Figure 2.4-2 shows reforestation areas conducted by government and non-government sectors. In 2008, both government and non-government sectors reforested a total of 43,609 hectares. The government sector, solely through the projects of the DENR, contributed a total of 27,752 hectares or 64%, while the non-government sector accomplished 15,857 hectares or 36%. Among regions, Region 5 posted the largest area reforested with 10,090 hectares (23 %), closely followed by Region 3 at 7,154 hectares (16.4%). Urban forestry solely for the improvement of urban environment is the National Capital Region's (NCR) focus reforesting 98 hectares (0.22 %) during the year (FMB, 2008).

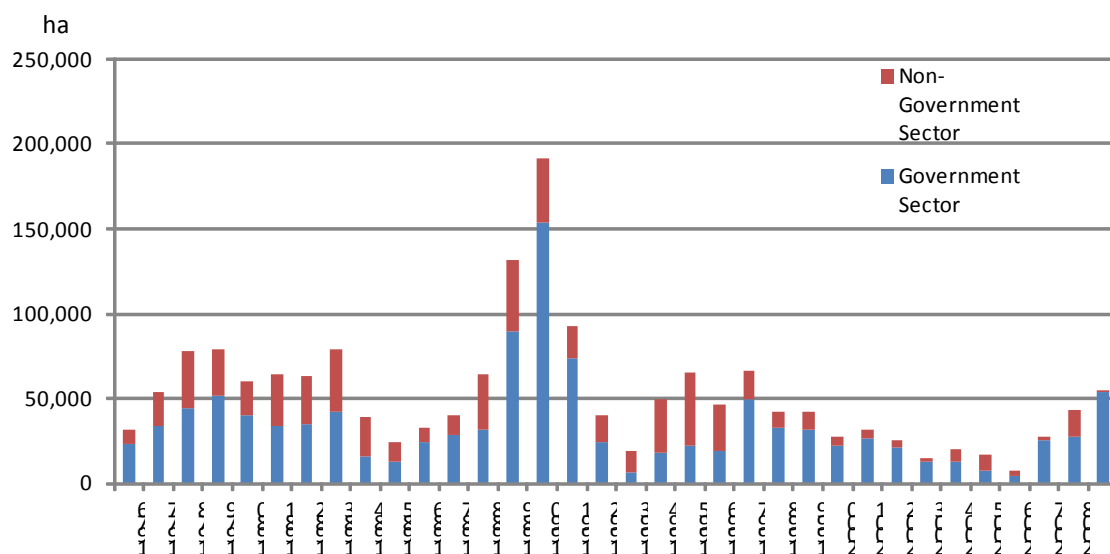
According to the FAO statistic<sup>7</sup>, around 55,000ha of forest area was increased for a decade from 1990 to 2000 and from 2000 to 2010. However this figure includes plantation forests that are monocrops and do not necessarily provide the cover needed for biological diversity.

<sup>7</sup> State of the World's Forests 2011, FAO (2011)

**Table 2.4-3 Community-Based Forest Management Agreements (2009)**

Region	No. Issued	Tenured Area (ha)	Beneficiaries	
			No. of Household	No. of People's Organization
<b>Philippines</b>	<b><u>1,790</u></b>	<b><u>1,633,891</u></b>	<b><u>322,248</u></b>	<b><u>1,790</u></b>
CAR	87	56,625	13,762	87
1	127	40,272	15,514	127
2	103	269,879	92,391	103
3	131	79,517	12,502	131
4-A	47	18,401	3,098	47
4-B	78	92,615	10,229	78
5	83	47,926	12,328	83
6	105	40,715	17,142	105
7	208	57,609	16,056	208
8	132	116,739	14,405	132
9	131	79,207	12,886	131
10	298	213,770	34,021	298
11	94	207,264	26,114	94
12	53	95,739	10,607	53
13	113	217,613	31,193	113

Source: 2009 Philippine Forestry Statistics, FMB website (Accessed in April 2011)



Source: Data from 2009 Philippine Forestry Statistics, FMB website (Accessed in April 2011)

**Figure 2.4-2 Reforestation Areas by the Government and Non-Government**

Analysis of Gaps between Current Relevant Regulations in the Philippines and JICA Guidelines for Environmental and Social Considerations (April, 2010) as well as Safeguard Policies in the World Bank

Appendix 2-4 shows the gaps between current relevant regulations in the Philippines and JICA Guidelines for Environmental and Social Considerations (April, 2010) as well as Safeguard Policies in the World Bank. There are no significant differences in these regulations.



**Chapter 3**  
**Pollution Control**



## Chapter 3. Pollution Control

### 3.1 General Condition

For the past three decades, economic growth in the Philippines has been fueled by rapid industrialization, urbanization, and intensified agricultural production. In the absence of effective environmental management, these growth engines have also resulted in air-, water-, and soil pollution. In coping with these environmental problems, the Department of Environment and Natural Resources (DENR) and the Environmental Management Bureau (EMB) have been playing central roles to formulate and enforce various environmental regulations, prepare and implement a variety of environmental programs with the support of the foreign donors. Accordingly, several signs of improvements can be seen such as air quality of Metro Manila. However, both human resources and budget of the government as well as private sectors have not been enough to solve these pollution problems especially in the urban area.

### 3.2 Current Condition of Air Pollution and Approaches to the Problems

#### 3.2.1 Current Condition and Problems of Air Pollution

Air pollution is consistently a perennial major problem that insinuates itself unnoticed in our daily lives. The worsening air quality condition is more evidently felt particularly in Metro Manila and other urban centers.

##### 3.2.1.1 Monitoring System for Air Quality

In an effort to monitor and improve the quality of air, the EMB and NCR regularly monitors roadside Total Suspended Particulates (TSP) concentrations through its sampling stations in Metro Manila, while EMB regional offices monitors the same on a nationwide scale. In addition to this, monitoring of ambient concentrations of air pollutants other than TSP such as  $PM_{2.5}$ ,  $PM_{10}$ ,  $SO_x$ ,  $NO_x$  and CO is conducted only in Metro Manila and in the cities of Cebu, Cagayan de Oro, Davao, and Iloilo Baguio. Table 3.2-1 and 3.2-2 shows monitoring stations of TSP in Metro Manila, and other major cities and urban centers, respectively.

**Table 3.2-1 Monitoring Stations for TSP in Metro Manila (As of 2008)**

Station	Location
EDSA NPO	National Printing Office Compound, EDSA, Q.C.
EDSA East Avenue	BFD Compound EDSA, East Avenue, Q.C.
Ateneo	Ateneo University, Katipunan Road, Diliman, Q.C.
Valenzuela	Valenzuela Municipal Hall, Valenzuela City
Makati City	Gumamela St., Guadalupe Viejo, Makati City
Pasig	LLDA Compound, Pasig City Hall, Pasig City
Las Pinas	Narra St., Belisario Subdv., Las Pinas
EDSA Congressional Ave	EDSA Congressional Ave. Proj. 8, Q.C.
Mandaluyong	Mandaluyong City Hall, Mandaluyong City
Manila	Dept. of Health San Lazaro St., Rizal Ave., Manila
Pasay	Pasay City Hall, F.B, Harrison St. Pasay City

Station	Location
Marikina	-
EDSA MRT	EDSA MRT EDSA Corner Taft Ave.

Note: - No available data

Source: Compendium of Basic ENR Statistics for Operations and Management (Second Edition) (2000-2008), DENR (2011)

**Table 3.2-2 Monitoring Stations for TSP in major cities and urban centers  
(except in Metro Manila) (As of 2008)**

Region	Numbers of Stations	Location City
CAR	1	Baguio City
1	3	Almanos City, San Fernando City, Laoag City
2	1	Tuguegarao City Tanza
3	5	San Fernando City, Bulacan (Iba), Bulacan (Sahrysoy), Cabanatuan City, Bulacan (Wakes Bacaue)
4a	3	Cavite City, Batangas, Lucena City (Quezon)
4b	2	Calapan City (2)
5	3	Legazpi City, Iriga City, Naga City
6	2	Iloilo City (2)
7	6	Cebu City (6)
8	1	Tacloban City
9	4	Zamboanga City (4)
10	2	Cagayan de Ore City (2)
11	8	Davao City (8)
12	8	General Santos Cargil (Phils.) Inc., South Cotabato Banga, South Cotabato Polomolok, South Cotabato Suralla, South Cotabato, North Cotabato Makilala, Cotabato City (2)
13	2	Butuan City (2)

Source: Compendium of Basic ENR Statistics for Operations and Management (Second Edition) (2000-2008), DENR (2011)

Meanwhile, the Philippine Nuclear Research Institute (PNRI) continued to monitor particulate matter in the PM range at three sites in the NCR, that are in Ateneo de Manila University (ADMU), in Valenzuela and in POVEDA. Moreover, the Manila Observatory (MO) has also been conducting PM sampling in Quezon City.

### 3.2.1.2 Monitoring Result of Air Quality

Based on the assessment results gathered from monitoring stations in Metro Manila, the air quality has gradually improved with a reduction of 14.81 percent in Total Suspended Particulates (TSP) level, from an annual geometric mean of 162 ug/Ncm in CY 2003 to 138 ug/Ncm in CY 2008 (Table 3.2-3). However, despite the said reduction, the long-term guideline value of 90 ug/Ncm for TSP was exceeded in almost all monitoring stations.

**Table 3.2-3 Annual Geometric Mean of Roadside TSP Level in the NCR Monitoring Stations:  
2000-2008 (u g/Ncm)**

Monitoring Station	2000	2001	2002	2003	2004	2005	2006	2007	2008
EDSA NPO	215	133	149	157	165	163	138	125	144
EDSA East Avenue	169	205	167	179	170	129	104	102	107
Ateneo	86	94	93	83	105	87	72	65	74
Valenzuela	214	222	206	247	206	152	157	146	156
Makati City	129	157	157	198	211	183	153	146	134
Pasig	129	110	90	101	109	106	90	92	85
Las Pinas	91	73	80	-	-	-	-	-	-
EDSA Congressional Ave	359	227	206	-	-	-	-	-	-
Mandaluyong	147	132	145	136	133	124	121	134	125
Manila	-	171	143	180	134	138	111	110	138
Pasay	-	136	166	178	135	134	159	140	
Marikina	-	-	-	-	-	-	-	-	138
EDSA MRT	-	-	-	-	236	323	316	257	282
Average	171	151	146	162	160	154	142	132	138

Note: - No available data, Source: Compendium of Basic ENR Statistics for Operations and Management (Second Edition) (2000-2008), DENR (2011)

Furthermore, PM10 annual mean levels in the NCR are in compliance with the Annual Ambient Air Quality long term guideline value of 60  $\mu\text{g}/\text{m}^3$  as shown in the Table 3.2-4. On the other hand, PM2.5 annual mean levels in all the PNRI Metro Manila sampling sites, have consistently been in exceedance of the US EPA long term guideline value of 15  $\mu\text{g}/\text{m}^3$ .

**Table 3.2-4 PM10 and PM 2.5 Annual Mean Levels and Concentration Ranges  
at the PNRI Metro Manila Sampling Sites, 2004 and 2007 ( $\mu\text{g}/\text{m}^3$ )**

		2004			2007		
		Min	Max	Mean	Min	Max	Mean
PM10	ADMU	16.9	82.2	47	22.2	84	45.7
	POVEDA	16.3	75	42.6	19.2	85.5	43.3
	Valenzuela	22.8	81.8	45.7	18	113	52.8
PM2.5	ADMU	11.8	51.4	28	10.6	43.3	25.9
	POVEDA	4.3	35	15	2.3	48	16.8
	Valenzuela	9.4	32.6	20.1	8.9	39.6	19.8

Source: National State of the Brown Environment Report (2005-2007), EMB (2009)

Table 3.2-5 shows average monitoring result of TSP in major urban centers outside Metro Manila. In 2008, six out of eleven regions were reported with levels lower than the required standard.

**Table 3.2-5 Average Annual Mean Roadside TSP  
in Major Cities and Urban Centers Monitoring Stations by Region: 2000-2008 ( $\mu\text{g}/\text{Ncm}$ )**

Region	2000	2001	2002	2003	2004	2005	2006	2007	2008
CAR	287	222	326	229	204	170	161	203	-
1	-	-	-	130	248	160	164	159	136
2	-	299	339	198	59	107	87	104	81

Region	2000	2001	2002	2003	2004	2005	2006	2007	2008
3	-	-	-	120	329	261	249	329	181
4a	-	145	111	103	114	101	68	61	40
4b	-	-	246	-	217	92	128	-	-
5	99	76	109	109	93	81	138	104	67
6	202	201	169	135	143	111	89	93	108
7	101	66	89	-	94	91	133	127	103
8	-	-	91	100	-	-	-	-	-
9	461	438	360	230	216	162	152	120	127
10	149	142	128	-	-	-	-	-	-
11	-	-	-	142	75	60	-	-	51
12	-	-	-	96	106	-	-	-	84
Caraga	172	184	100	96	83	81	71	74	63

Note: - No available data, Source: Compendium of Basic ENR Statistics for Operations and Management (Second Edition) (2000-2008), DENR (2011)

### 3.2.1.3 Emission Inventory

In the Philippines, the conduct of emissions inventory is required by the Clean Air Act of 1999 or Republic Act No.8749 once every three years. Based on the 2006 National Emissions Inventory, as shown in Table 3.2-6, it was estimated that 21% of the pollutants came from stationary sources, 65% of the pollutants came from mobile sources, followed by the 14% from area sources in the Philippines. According to criteria pollutants, CO has the biggest pollution load contribution of 50%. CO emission is relatively caused by the increasing population of gasoline-fed vehicles.

**Table 3.2-6 2006 National Emissions Inventory in the Philippines (in tons)**

Source	PM	SOx	NOx	CO	VOC	Total	%
Stationary	110,023	598,634	326,219	360,620	67,859	1,463,385	21
Mobile	244,764	14,309	405,033	9,988,616	914,996	4,567,719	65
Area	423,615	1,963	327,261	165,647	63,855	982,340	14
Total	778,402	614,937	1,058,514	3,514,883	1,046,710	7,013,444	100
%	11	9	15	50	15	100	

Source: National State of the Brown Environment Report (2005-2007), EMB (2009)

## 3.2.2 Approaches to the Problems

### 3.2.2.1 Relevant Regulations and Standards

#### **Republic Act No.8749 (1999): Clean Air Act**

The Clean Air Act outlines the government's measures to reduce air pollution and incorporate environmental protection into its development plans. It relies heavily on the polluter pays principle and other market-based instruments to promote self-regulation among the population. It sets emission standards for all motor vehicles and national ambient air quality standards. It also issues pollutant limitations for industry. Polluting vehicles and industrial processes must pay a charge. It bans incineration and smoking in public places. Unleaded premium gasoline is also banned to be manufactured, imported, sold or introduced under this Act.

### **DENR Administrative Order (DAO) No.2000-81 (2000)**

The DAO No.2000-81 provides implementing rules and regulations for RA.8749. This also provides revised a series of air quality standards.

### **Presidential Decree (PD) No.1181 (1980), DAO No.98-46 (1998)**

The PD No.1181 sets in order to prevent, control, and abate the emission of air pollution from motor vehicles. Under the regulation, air emissions from motor vehicles are regulated to meet ambient air quality standards. Motor vehicles are prohibited in certain areas at particular times to ensure compliance with established national ambient air quality standards. These rules were amended by the DAO No.98-46 in 1998.

### **Environmental Quality Standards for Air Pollution**

The Philippines revised the national ambient air quality standards as well as national emission standards under the DAO No.2000-81 in 2000 (see Appendix 3-1). Compared with WHO standards, the Philippines has less stringent ambient air quality standards as shown in the Table 3.2-7.

**Table 3.2-7 National Ambient Air Quality Standards Compared with Other International Standards**

<b>Pollutants</b>	<b>Averaging time</b>	<b>Philippines Standards</b>	<b>WHO(2005)</b>	<b>USEPA</b>
TSP	24 hours	230	-	-
	1 year	90	-	-
PM 10	1 hour	200	-	-
	24 hours	150	50	150
	1 year	60	20	Revoked
PM 2.5	24 hours	-	25	15
	1 year	-	10	35
SO <sub>2</sub>	10 minutes	-	500	-
	1 hour	340	-	-
	24 hours	180	20	365 (0.14ppm)
	1 year	80	-	78 (0.03ppm)
NO <sub>2</sub>	1 hour	260	200	-
	24 hours	150	-	-
	1 year	-	40	100
O <sub>3</sub>	8 hours	60	100	157 (0.08ppm)
	1 hour	140	-	235 (0.12ppm)
CO	1 hour	35,000	30,000	40,000
	8 hours	10,000	10,000	10,000
Pb	1 year	1	0.5	-
	3 months	1.5	-	1.5

Note: EHS Guideline of the IFC (April 30, 2007) set that missions do not result in pollutant concentrations that reach or exceed relevant ambient quality guidelines and standards by applying national legislated standards, or in their absence, the current WHO Air Quality Guidelines or other internationally recognized sources.

Sources: DAO No.2000-81, WHO (2005), USEPA (2006)

#### **3.2.2.2 Relevant Authorities**

Authorities responsible in the implementation of Air Quality Management and Control Program and

their responsibilities are presented as follows:

**Table 3.2-8 Relevant Authorities for Air Quality Management**

<b>Organization</b>	<b>Mandates/Activities</b>
Environmental Management Bureau, DENR	<ul style="list-style-type: none"> <li>- It issues permits which shall cover emission limitations for regulated air pollutants to help attain ambient air standards.</li> <li>- It may allow regional industrial centers designated as special airsheds to allocate emission quotas to pollution sources.</li> <li>- It sets standards for pollution from various sources.</li> <li>- It prepares a plan for reduction of greenhouse gases.</li> <li>- It prepares an inventory of POPs in the country and a program for elimination of these substances.</li> </ul>
Department of Transportation and Communication	<ul style="list-style-type: none"> <li>- It implements and enforces motor vehicle emission standards set by the DENR.</li> <li>- It imposes fines for violations of motor vehicle standards.</li> <li>- Together with the DENR and the DTI, it establishes procedures for inspection of motor vehicles and testing of their emissions.</li> <li>- It authorizes private emission testing centers certified by the DTI.</li> </ul>
Department of Trade and Industry	<ul style="list-style-type: none"> <li>- Together with the DOTC and the DENR, it formulates and implements a national motor vehicles inspection and maintenance program.</li> </ul>
Department of Energy	<ul style="list-style-type: none"> <li>- It implements the plan of energy development and introduces clean fuel.</li> <li>- Together with the DENR, Bureau of Product Standards and the Department of Science and Technology, it sets specifications for all types of fuels.</li> </ul>
Philippine Nuclear Research Institute	<ul style="list-style-type: none"> <li>- It conducts air quality monitoring in the NCR</li> <li>- Together with the DENR and related agencies, it regulates all projects that involve release of radioactive substances.</li> </ul>

Source: Website of each authority (Accessed in April 2011)

### 3.2.2.3 Policies and Plans

#### Airshed

An airshed is defined as “areas with similar climate, weather, meteorology and topography which affect the interchange and diffusion of pollutants in the atmosphere.” Table 3.2-9 provides the list of designated airsheds nationwide. Airsheds are to be managed by multi-sectoral governing boards which are tasked to formulate policies and standards as well as action plans to effectively manage the air quality situation within their respective areas.

**Table 3.2-9 Designated Airshed Nationwide**

<b>Name of Airshed</b>	<b>Coverage</b>
Metro Manila	Pampanga-one-Eco Zone, 1 city & 20 municipalities; Bataan – 10 municipalities; Cavite-21 municipalities & 1 City; Laguna-4 municipalities & a City; Rizal-14 municipalities and a City; NCR- 17 cities
Metro Cebu	Region 7 (Cities of Mandaue, Cebu, Lapu-lapu and Talisay Municipalities of Naga, Manglanilla, Cordova, Liloan, Compostela and Consolacion)
BLIST	CAR (City of Baguio and Municipalities of La Trinidad, Itogon, Tuba and Sabang)
Agusan del Norte	CARAGA (Butuan City, Buenavista, Cabadbaran, Carmen, Jabonga, Kitcharao, Las Nieves, Magallanes, Nasipit, Santiago, Tubay, and Remedios T. Romualdez)

<b>Name of Airshed</b>	<b>Coverage</b>
Naga City	Region 5 (Abella, Balatas, Bagumbayan Norte, Lerma, Liboton, Bagumbayan Sur, Pacol, Sta. Cruz, Concepcion, Pequeña, Sabang, San Isidro, Dayangdang, Dinaga, Triangulo, Del Rosario, Tabuco, Cararayan, Panicason, Tinago, Igualdad Peñafrancia, Calauag, San Felipe and San Francisco)
Cagayan de Oro	Region 10 (Cagayan de Oro City and Municipalities of Jasaan, Villanueva, Tagoloan, Opol and El Salvador)
Zamboanga City	Region 9 (A. City Proper (Zone I, II, II, IV) B. North-West Coast Area (Ayala, Canclar, Recodo, Baliwasan, Capisan, San Ramon, Baluno, Cawit, Caragasan, San Roque, Cabatangan, Sinunuc, Calarian, La Paz, Sta. Maria, Camino Nuevo, Maasin, Sto. Niño, Pitogo, Tulungatung, Malagutay, Talisayan, Pamucutan, Upper Pasonanca (Dulian), Pasonanca C. East Coast Area (Arena Blanco, Lumayan, Sangali, Boclan, Lumbangan, Sta. catalina, Cabaluay, Cacao Lunzuran, Talaboan, Mampang, Talon- Talon, Culianan, Manicahan, Talon- Talon Loop, Divisoria, Mariki, Taluksangay, Guisao, Mercedes, Tetuan, Guiwan, Pasobolon, Tugbunga, Kasanyangan, Putik, Tumaga, Lamisahan, Rio Hondo, Victoria, Lampacan, Salaan, Zambowood Lanzones)
Northeastern Pangasinan	Region 1 (Binmaley, San Fabian, Lingayen, Laoac, San Jacinto, Calasiao, Mangaldan, Manaoag, Binalonan, Malasiqui, Mapandan, Pozorrubio, San Carlos City, Sison, Sta. Barbara, Urdaneta City, Dagupan City, San Manuel)
PIESTTA (Metro Tuguegarao)	Region 2 (Peñablanca, Iguig, Enrile, Solana, Tuguegarao City, Tuao, Amulong)
South Cotabato	Region 12 (Gen. Santos City, Koronadal City, Tupi, Polomolok, Tampakan, Tantangan, Banga, Surallah, Norala, Sto. Niño, T'boli, Lake Sebu)
Metropolitan Iloilo	Region 6 (Oton, Pavia, Leganes, San Miguel, Iloilo City)
Leyte Geothermal	Region 8 (Range: Latitude 1105'14.1879" to 11012'17.1161" Long. 123036'20,000 to 124041'9.6469, Ormoc City, Kananga)
Southern Negros Geothermal	Region 7 (Ranges: Latitude 9015'38.2244 to 9020'5.4437 Long: 2307'18.0068 to- 123012'45.2140", Valencia)
Bacon-Manito Geothermal	Region 5 (Ranges: Latitude 12059'58.0897- 1304'37.2524 Long: 123051'41.1827- 123059'32.0355, Sorsogon City, Manito)
North Cotabato Geothermal	Region 11 (Ranges: Latitude 6059'9.3947 to 70240.3374 Long: 125012'13.3856 to - 125015'19.7223", Kidapawan City)
Baco-Naujan-Calapan	Region 4-B (Baco, Naujan municipalities and Calapan City)

Source: National Air Quality Status Report (2005-2007), DENR, 2009

### **Management of Stationary Sources**

All industrial firms that emit air pollutants must have a valid Permit to Operate issued by the EMB. These firms are also required to submit to EMB a self monitoring report (SMR) that demonstrates their compliance with environmental regulations, including the Clean Air Act. The SMR, which is submitted on a quarterly basis, contains among others, concentration and flow rate of air pollutants emitted by the firms. Major industrial facilities, such as power plants and cement plants, with actual emission per year of 750 tons per regulated pollutant are required to install continuous emission monitoring system. This system is used to sample and provide a permanent record of emissions or process parameters.

### **Management of Mobile Sources**

As for emission control for motor vehicles, the adoption of EURO 2 type approval standards for new

motor vehicles was decided pursuant to DENR Administrative Order No.2007-27<sup>8</sup>. In-use vehicles (gasoline and diesel) shall comply with the following emission standards.

**Table 3.2-10 Emission Standards for Vehicles with Spark-Ignition Engines (Gasoline, Except motorcycles)**

Vehicle Registration	CO (% by Volume)	HC (ppm as Hexane)
Registered for the first time after December 31, 2007	0.5	250
Registered for the first time on or after January 1,2003 but before January 1,2008	3.5	600
Registered for the first time on or before December 31,2002	4.5	800

Source: DAO No.2007-81 (2007)

**Table 3.2-11 Emission Standards for Vehicles with Compression-Ignition Engines (Diesel)**

Vehicle Registration	Light absorption (coefficient, m <sup>-1</sup> , k)
Registered for the first time after December 31, 2007	2.0
Registered for the first time on or after January 1,2003 but before January 1,2008	2.5
Registered for the first time on or before December 31,2002	2.5 3.5 (turbocharged) 4.5 (1,000m increased in elevation)

Source: DAO No.2007-81 (2007)

Compliance with emission standards of all motor vehicles has been started in January 2003 in a nationwide scope through the operationalization of Private Emission Test Center (PETC). The Department of Transportation and Communications (DOTC) through the Land Transportation Office (LTO) authorized PETCs that is to determine if the vehicle emissions conform to the standards set by the DENR under the CAA. Renewal of vehicle registration as well as retrieval of confiscated licensed plates due to smoke belching requires the presentation of Certificate of Emission Compliance (CEC) to Land Transportation Office (LTO). There are currently 575 PETCs nationwide.

### 3.3 Current Condition of Water Pollution and Approaches to the Problems

#### 3.3.1 Current Condition and Problems of Water Pollution

The Philippines is lavishly endowed with water resources with plenty of surface water and groundwater resources available. However, population growth and continuous urbanization cause tremendous stress to the quality of our waters. Pollution affects fresh, marine, coastal, and even our groundwater resources. Especially water quality is poorest in the rivers running in the NCR, and the main sources of pollution in these water bodies are untreated discharges of industrial, agricultural and domestic wastewater. Although groundwater resources are generally abundant, over-abstraction and poor environmental management of extractive resource industries have polluted downstream

<sup>8</sup> According to the EMB, the EMB has set the adoption of Euro-4 Type Approval Standards for new motor vehicles effective Jan.1, 2016.

water courses and aquifers, caused siltation, and lowered water tables.

### 3.3.1.1 Water Body Classification

Classification of Philippine waters is the categorization of all water bodies to maintain its safe quality and satisfactory condition according to their best usages. Tables 3.3-1 and 3.3-2 show the current classification for fresh surface waters and coastal and marine waters, respectively.

As shown in the Table 3.3-3, there were 623 water bodies classified by EMB as of CY 2008, that included the 283 principal rivers (67.22% of the total 421 principal rivers nationwide). Out of the 623 classified water bodies, 35.6% belongs to Class C and 32.9% Class A. Only five rivers are classified to Class AA (Lipadas, Baganga-Mahan Ub, Ginabasan, Nagan and Lake Ambulalakaw).

**Table 3.3-1 Current Classification of Water Bodies for Fresh Surface Water according to Beneficial Use**

<b>Classification</b>	<b>Beneficial Use</b>
Class AA	Public Water Supply Class I. This class intended primarily for waters having watersheds which are uninhabited and otherwise protected and which require only approved disinfection in order to meet the Philippine National Standards for Drinking Water (PNSDW)
Class A	Public Water Supply Class II. For sources of water supply that will require complete treatment (coagulation, sedimentation, filtration and disinfection) in order to meet the PNSDW
Class B	Recreational Water Class I. For primary contact recreation such as bathing, swimming, skin diving, etc. (particularly those designated for tourism purposes)
Class C	1) Fishery Water for the propagation and growth of fish and other aquatic resources; 2) Recreational Water Class II (Boatings, etc.) 3) Industrial Water Supply Class I (For manufacturing processes after treatment).
Class D	1) For agriculture, irrigation, livestock watering, etc. 2) Industrial Water Supply Class II (e.g. cooling, etc.) 3) Other inland waters, by their quality, belong to this classification

Source: DAO No.34, Series of 1990

**Table 3.3-2 Current Classification of Water Bodies for Coastal and Marine Waters according to Beneficial Use**

<b>Classification</b>	<b>Beneficial Use</b>
Class SA	1. Waters suitable for the propagation, survival and harvesting of shellfish for commercial purposes; 2. National marine parks and reserves established under existing laws and/or declared as such by appropriate government agency/ies; and 3. Coral reefs parks and reserves designated by law and concerned authorities.
Class SB	1. Tourist zones and marine reserves primarily used for recreational activities such as bathing, swimming, skin diving, etc., established under existing laws and/or declared as such by the appropriate government agency; 2. Recreational Water Class I (Areas regularly used by the public for bathing, swimming, skin diving, etc.); and 3. Fishery Water Class I (Spawning areas for <i>Chanos chanos</i> or “Bangus” and similar species).
Class SC	1. Recreational Water Class II (e.g. boating, etc.); 2. Fishery Water Class II (commercial and sustenance fishing); and 3. Marshy and/or mangrove areas declared as fish and wildlife sanctuaries.
Class SD	1. Industrial Water Supply Class II (e.g. cooling etc.); and 2. Other coastal and marine waters, by their quality, belong to this qualification.

Source: DAO No.23, Series of 1997

**Table 3.3-3 Number of Classified Water Bodies 2008 (Including Principal and Small Rivers)**

Region	AA	A	B	C	D	SA	SB	SC	SD	Total
NCR		1		4						5
CAR	2	9	20	6						37
1		10	4	10			1			25
2		3	8	24	5					40
3		17	7	27	1		2	2		56
4a		3	12	30				1		46
4b		7	2	31	3	3	2	2		50
5		24	14	14	2		1	1		56
6		20	7	23			8			58
7	1	23	3	2	1	1	5	3		39
8			1	28				3	3	35
9		24	16							40
10		37						1		38
11	2	7	8	7	3		4			31
12		10	10	9	4		4	3		40
Caraga		10	1	7	8	1				27
Total	5	205	113	222	27	5	27	16	3	623

Source: Compendium of Basic ENR Statistics for Operations and Management (Second Edition) (2000-2008), DENR (2011)

### 3.3.1.2 Assessment of Water Quality

Tables 3.3-4 and 3.3-5 shows the monitoring results of the nineteen priority rivers initially identified by the EMB for its Sagip Ilog Program in 2003-2008.

Results of assessment revealed that all 19 priority rivers have improved significantly from CY 2003 - 2008 in terms of DO level. Of which, only two rivers namely Anayan River, Sapangdaku River were assessed to conform with both DO and BOD criteria standard in 2008. Almost all the rivers that run into the Manila Bay failed the DENR criteria standards of both DO and BOD.

**Table 3.3-4 Summary of DO Results for the 19 Priority Rivers**

Region	Water Body	Class	Average DO (mg/L)			Passed/Failed in 2008	Connected River/Bay
			2003	2006	2008		
NCR	Marikina River	C	3.1	2.2	2.6	Failed	Pasig River
	San Juan River	C	2.4	1.1	1.9	Failed	Pasig River
	Paranaque River	C	2.5	1.6	1.6	Failed	Manila Bay
	Pasig River	C	3.1	2.5	3.2	Failed	Manila Bay
CAR	Balili River	A	4.6	6.9	4.6	Failed	Naguilian River
III	Meycauayan River	C		0.0	2.5	Failed	Manila Bay
	Marilao River	A	0.8	1.0	2.4	Failed	Manila Bay
	Bocause River	C	1.9	1.9	5.0	Failed	Manila Bay
IV-A	Imus River	C	3.0	4.7	4.1	Failed	Manila Bay
	Ylang-Ylang River	C	4.5	5.1	4.0	Failed	Manila Bay
IV-B	Mogpong River	C	4.9	7.9			Calacanan Bay
	Calacan River	C	7.3	2.2	3.1	Failed	Calapan Bay
V	Anayan River	D	5.6	6.7	6.5	Passed	Bico River
	Malaguit River	C	4.6	6.3	7.4	Passed	Malaguit Bay
	Panique River	C	2.7	7.9	6.9	Passed	Balawing Cove

Region	Water Body	Class	Average DO (mg/L)			Passed/Failed in 2008	Connected River/Bay
			2003	2006	2008		
VI	Iloilo River	C	<b>4.2</b>	5.3	<b>4.5</b>	Failed	Iloilo Strait
VII	Luyang River	C		7.5	6.9	Passed	Coastal Water of Cebu
	Sapangdaku River	C		7.6	6.9	Passed	Tanon Strait
X	Cagayan de Oro River	A	8.6		8.1	Passed	Macajalar Bay

Note: Blank means no available data. Dissolved Oxygen is an indicator of how well the water can support aquatic life.

DO criteria standard is 5.0 mg/L (minimum) for Class 'AA to C' and 3.0 mg/L (minimum) for Class D.

Bold-faced number means that it was failed to reach the criteria standard.

Source: Compendium of Basic ENR Statistics for Operations and Management (Second Edition) (2000-2008), DENR (2011)

**Table 3.3-5 Summary of BOD Results for the 19 Priority Rivers**

Region	Water Body	Class	Average BOD (mg/L)			Passed/Failed in 2008	Connected River/Bay
			2003	2006	2008		
NCR	Marikina River	C	<b>18.2</b>	<b>15.0</b>	<b>18.2</b>	Failed	Pasig River
	San Juan River	C	<b>54.8</b>	<b>33.4</b>	<b>44.2</b>	Failed	Pasig River
	Paranaque River	C	<b>42.0</b>	<b>41.0</b>	<b>38.2</b>	Failed	Manila Bay
	Pasig River	C	<b>10.7</b>	<b>13.6</b>	<b>20.5</b>	Failed	Manila Bay
CAR	Balili River	-		<b>23.3</b>	<b>37.4</b>	Failed	Naguilian River
III	Meycauayan River	C	<b>38.2</b>	<b>144.1</b>	<b>35.6</b>	Failed	Manila Bay
	Marilao River	A	<b>32.3</b>	<b>21.9</b>	<b>11.1</b>	Failed	Manila Bay
	Bocaue River	C	<b>12.2</b>	<b>7.2</b>	<b>11.8</b>	Failed	Manila Bay
IV-A	Imus River	C	<b>8.0</b>	<b>9.1</b>	<b>11.1</b>	Failed	Manila Bay
	Ylang-Ylang River	C	<b>24.4</b>	<b>8.7</b>	<b>63.76</b>	Failed	Manila Bay
IV-B	Mogpong River	C					Calcanan Bay
	Calapan River	C		5.1	3.8	Passed	Calapan Bay
V	Anayan River	D	<b>8.9</b>	1.5	2.8	Passed	Bico River
	Malaguit River	C		2.3			Malaguit Bay
	Panique River	C		1.5			Balawing Cove
VI	Iloilo River	C	2.4	2.1	<b>4.4</b>	Failed	Iloilo Strait
VII	Luyang River	C		1.1	1.4	Passed	Coastal Water of Cebu
	Sapangdaku River	C		0.7	1.1	Passed	Tanon Strait
X	Cagayan de Oro River	A	1.2				Macajalar Bay

Note: Blank means no available data. BOD criteria standard is 5.0 mg/L (maximum) for Class 'A' and 'B', 7.0 mg/L (maximum) for Class 'C' and 10.0 mg/L (maximum) for Class 'D'.

Bold-faced number means that it was failed to reach the criteria standard.

Source; Compendium of Basic ENR Statistics for Operations and Management (Second Edition) (2000-2008), DENR (2011)

A rapid inventory of pollution sources in 2001-2005 revealed that domestic wastes are a major source of pollution (33%), followed by agriculture including livestock (29%) and industrial sources (27%)<sup>9</sup>. Nonpoint sources of pollution account for 11% of the organic load in water bodies.

Low sanitation coverage is a leading cause of water pollution in the Philippines. It was reported that more than 90% of the sewage generated nationwide is not treated properly and less than 10% of the population have access to piped sewerage systems<sup>10</sup>.

<sup>9</sup> National State of the Brown Environment Report (2005-2007), EMB (2009)

<sup>10</sup> Department of Public Works and Highways (2005)

### 3.3.1.3 Groundwater

Groundwater is one of the most important sources of water and about 50% of communities rely on groundwater as a source of drinking water in the Philippines<sup>11</sup>. However it was reported that extraction of groundwater in urban cities of the country has already exceeded the allowable extraction rate or safe yield in 2007<sup>12</sup>. Unrestrained utilization of groundwater through additional allocations of groundwater in these areas would result in further deterioration of water quality, decline in piezometric levels, saline intrusion and possible land subsidence.

### 3.3.1.4 Marine Waters

Marine waters in the Philippines are increasingly threatened by bacterial contaminants from land runoff including urban areas and intensive farming operations, sewage spills and overflows, indirect discharge and untreated effluents from industries and establishment. One of the most polluted bay in the Philippines is the Manila Bay that six major rivers running in the NCR are connected to. Table 3.3-7 shows the monthly geometric mean of Total and Fecal coliform count in samples collected for the period 2005 to 2007. Data derived from the monitoring show that out of the 14 stations monitored only three stations passed the total coliform criteria set for primary contact recreation in 2005, one in 2006, and two in 2007. For fecal coliform measurements in the same stations, it showed that only one station passed the criteria of 200MPN/100ml for SB waters throughout the observation period. It is noticeable that only stations located in the western part of the bay passed the criteria.

**Table 3.3-6 Geometric Mean of Total and Fecal Coliform Counts (MPN/100 ml) in Manila Bay**

STATION	2005		2006		2007	
	TC	FC	TC	FC	TC	FC
1. Navotas Fishport	43,682	8,053	43,694	23,952	20,068	11,219
2. Luneta Park	74,086	20,912	62,586	41,746	40,551	14,571
3. Bacoor . Cavite	4,426	1,710	1,733	1,130	4,878	3,277
4. Noveleta, Cavite 1	1,834	998	9,249	6,124	1,055	8,122
5. Noveleta, Cavite 2	1,593	553	2,243	1,348	1,174	541
6. Rosario, Cavite	17,731	5,323		7,330	4,914	2,982
7. Tanza, Cavite 1	28,232	9,439	18,400	13,972	9,075	3,720
8. Tanza, Cavite 2	1,863	291	3,949	3,212	2,635	1,584
9. Naic, Cavite 1	6,184	2,446	2,932	2,477	7,510	4,907
10. Naic, Cavite 2	7,621	2,388	2,234	2,234	5,778	4,004
11. Mariveles, Bataan 1	<b>490</b>	241	<b>795</b>	289	<b>517</b>	<b>155</b>
12. Mariveles, Bataan 2	<b>737</b>	669	3,631	3,691	<b>634</b>	234
13. Limay, Bataan 1	4,106	1,864	23,315	8,182	6,268	5,291
14. Limay, Bataan 2	<b>674</b>	214	11,805	5,529	2,865	1,501
DENR WQ CRITERION	1,000	200	1,000	200	1,000	200

Bold-faced number means that it was passed to reach the criteria standard.

Water Quality Criterion; DAO No. 1990-34 (1990) Water Quality Criteria for Conventional and Other Pollutants Contributing to Aesthetics and Oxygen Demand for Coastal and Marine Waters (Class SB)

Source: National State of the Brown Environment Report (2005-2007), EMB (2009)

<sup>11</sup> Philippines Environment Monitor 2003:Water Quality, World Bank (2003)

<sup>12</sup> National State of the Brown Environment Report (2005-2007), EMB (2009)

### 3.3.2 Approaches to the Problems

#### 3.3.2.1 Relevant Regulations and Standards

##### **Presidential Decree (PD) No.1067 (1976): Water Code of the Philippines**

The PD No.1067 provides the framework for implementing the provisions of the constitution on water resources development and management with regard to water utility. This set following underlying principles;

1. All waters belong to the State;
2. All waters that belong to the State cannot be subject to acquisitive prescription;
3. The State may allow the use or development of waters by administrative concession;
4. The utilization, exploitation, development, conservation and protection of water resources shall be subject to the control and regulation of the government through the Natural Water Resources Council;
5. Preference in the use and development of waters shall consider current usages and be responsive to the changing needs of the country.

##### **Republic Act No.9275 (2004): Clean Water Act**

The current basic regulation related to water quality management is Republic Act No.9275, known as Clean Water Act enacted in 2004. DAO No.2005-10 (2005) provides implementing rules and regulations of this act. This law provides a comprehensive water pollution control policy. Specifically, this legislative intends to apply water quality management in all water bodies in order to implement abatement and control of pollution from land based sources.

##### **Relevant Manuals for Water Management**

In 2008, DENR formulated Water Quality Monitoring Manual on Ambient Water Quality and Effluent Monitoring for EMB's water quality and effluent monitoring activities. In 2009, the Procedural Manual for Designation of Water Quality Management Areas (WQMA) was provided to explain the process to designate the WQMA by regional offices of the DENR and other relevant organizations. In the procedure, stakeholder's meetings as well as public consultations are also included to be conducted.

##### **Environmental Standards related to water quality**

DAO No.34 (1990) provides revised water usage and classification of fresh surface waters. This also revises a series of water quality criteria. DAO No.35 (1990) provides revised effluent standards. DAO No.23 (1997) provides revised water usage and classification for coastal and marine waters. DAO No.1994-26A (1994) provides standard parameters and values for drinking-water quality. Detail data is shown in Appendix 3-1.

Compared the Philippine Effluent Standards for Conventional and Other Pollutants in Protected Waters Category II (Class B, C and SB) with the IFC EHS Standards of Treated Sanitary Sewage Discharges from the industrial facility, Total Coliform standard of the Philippines is remarkably higher than that of the EHS guideline, on the other hand, other parameters standards are almost same as shown below.

**Table 3.3-7 Indicative Values for Treated Sanitary Sewage Discharges**

Pollutants	Units	DENR Standard	EHS Guideline
pH	pH	6-9	6-9
BOD	mg/l	30	30
COD	mg/l	60	125
Total Nitrogen	mg/l	No value	10
Total Phosphorous	mg/l	No value	2
Oil and Grease	mg/l	5	10
Total Suspended Solids	mg/l	50	50
Total Coliform Bacteria	MPN/100ml	3,000	400

Source: DAO No.1990-35 (1990), EHS Guideline IFC (April 30, 2007)

### 3.3.2.2 Relevant Authorities

Authorities responsible in the implementation of Water Quality Management and Control Program and their responsibilities are presented as follows:

**Table 3.3-8 Relevant Authorities for Water Quality Management**

Organization	Mandates/Activities
Environmental Management Bureau, DENR	<ul style="list-style-type: none"> <li>- Fully implementation of the Clean Water Act</li> <li>- Classification of the remaining unclassified principal water bodies nationwide</li> <li>- Improvement of efforts on water quality of rivers by implementing the Sagip-Ilog Program</li> <li>- Conduct of water pollution discharge inventory on point and non-point sources</li> <li>- Industrial effluent monitoring in all major industries</li> <li>- Continuous implementation of the Tap Water Program to assist priority communities in the quality of drinking water in all 320 urban barangays from CHR to Region 13.</li> </ul>
National Water Resources Board	<ul style="list-style-type: none"> <li>- Formulation and coordination of policies, programs and standards relating to the Philippine Water Sector;</li> <li>- Management and regulation all water-related activities; and</li> <li>- Regulation and monitoring of water utilities.</li> </ul>
Laguna Lake Development Authority	<ul style="list-style-type: none"> <li>- Laguna Lake Watershed management</li> <li>- Formation and implementation of water clean plans/programs for Laguna Lake,</li> </ul>
Department of Public Works and Highways (DPWH)	<ul style="list-style-type: none"> <li>- Preparation of a national program on sewerage and septage management</li> <li>- Provision of sewerage and sanitation facilities</li> </ul>
Department of Health	<ul style="list-style-type: none"> <li>- Formulation of guidelines and standards for the collection, treatment and disposal of sewage</li> <li>- Promulgation, revision and enforcement of drinking water quality standards;</li> </ul>
Department of Agriculture	<ul style="list-style-type: none"> <li>- Formulation of guidelines for the re-use of wastewater for irrigation and other agricultural uses and for the prevention, control and abatement of pollution from agricultural and aquaculture activities</li> <li>- Prevention and control of water pollution for the development, management and conservation of the fisheries and aquatic resources;</li> </ul>
Department of Science and Technology	<ul style="list-style-type: none"> <li>- Preparation of a program for the evaluation, verification, development and public dissemination of pollution prevention and cleaner production technologies</li> </ul>

Source: Website of each authority (Accessed in April 2011), Republic Act No.9275 (2004)

### 3.3.2.3 Policies and Plans

#### *Designation of the Water Quality Management Areas*

Under the Clean Water Act of 2004, EMB in coordination with the NWRB is required to designate certain areas as Water Quality Management Areas (WQMA) using appropriate physiographic units such as watershed, river basins or water resources regions.

Management of each WQMA is localized. Multi-sectoral governing boards which are composed of governor, LGUs, relevant national government agencies and NGOs are to be established to manage water quality issues within their WQMA. The Governing Boards are required to formulate the action plan for next ten years for water quality management. The Regional Water Quality Management Fund is also formulated.

In 2009, the Procedural Manual for Designation of Water Quality Management Areas (WQMA) was provided by EMB in coordination with the JICA. In the procedure, stakeholder's meetings as well as public consultations are also included to be conducted.

As of April 2011, the following three areas was designated as WQMAs under the DENR Administrative Order.

- Marilao-Meycauyan-Obando River System Water Quality Management Area (DAO No.2008-07)
- Iloilo-Batiano River Systems Water Quality Management Area (DAO No.2009-11)
- The Sarangani Bay Water Quality Management Area (DAO No.2009-12)

### 3.3.2.4 Other Approaches to the Problems

#### *Water Pollution Permits and Charge, Monitoring by the EMB*

As a means to provide economic incentives to industries, the EMB has started implementing in 2006 the Water Pollution Permits and Charges under the Clean Air Act (2004). The fee system is meant to discourage industries from increasing their pollution load discharged to water bodies while at the same time encouraging them to put up proper wastewater treatment system which is more economically viable for them to maintain over the long-term.

Anyone discharging wastewater into a water body will have to pay a wastewater charge. Moreover, All owners or operators of facilities that discharge effluents shall be issued the Discharge Permit by the EMB or the Laguna Lake Development Authority. The quantity and quality of effluent that said facilities are allowed to discharge into a particular water body, compliance schedule and monitoring requirement.

In 2007, the EMB issued a total of 2,580 wastewater discharge permits and monitored a total of 2,568 firms nationwide. Effluents of those 1,190 firms which have been identified to be potentially pollutive were tested and 308 firms were found to exceed the standards and were issued NOVs.

### 3.4 Current Condition of Soil Pollution and Approaches to the Problems

#### 3.4.1 Current Condition and Problems of Soil Pollution

According to the EMB in April 2011, there is still no institutionalized soil quality monitoring or management plans in the Philippines. However, the Research and Development Division of the EMB are constructing soil quality management framework/guidelines, that requires submitting monitoring and status reports on a regular basis. Within this framework, there are also plans to develop guidelines for policy development, as well as a proposal to the Philippine Congress to include the soil guidelines in the Land Use Act of 1998.

Moreover, proof of soil contamination is also limited in the Philippines. According to the Integrated Persistent Organic Pollutants Management Project that is being conducted by the World Bank, some sites in the Philippines are heavily contaminated with PCB wastes and obsolete POP pesticides, and among the various issues that have surfaced concerning their management are the country's very limited experience with identification, characterization, and remediation and its lack of adequate financial resources to undertake these actions. The top three PCB hotspots are the National Capital Region, which contains the highest quantity of confirmed PCBs; Region 4, ranking second, with the greatest number of electric cooperative respondents; and Region 3, where Subic Bay and Clark Freeport Zones are located. Other sites with PCB and PCB-contaminated materials include old urban and industrial areas of Cebu and Davao City and the Meralco warehouse at Barangay San Joaquin, Pasig City, where PCB-contaminated equipment and materials excavated from the decommissioned Rockwell Power Plant in Makati City were encapsulated.

On the other hand, it was reported in 2006 that the study for determination of the level of Pb in soil from the selected six cities<sup>13</sup> in Luzon was conducted from 2003 to 2004 (Ona et al., 2006)<sup>14</sup>. Total thirty Samples were obtained approximately 2 to 3 meters from the road. As shown in the Table 3.4-1, findings revealed Pb levels ranging from 1.5 to 251 mg/kg in all the soil samples. The average soil Pb concentration from the six cities studied was below the maximum tolerable limit according to World Health Organization (WHO) standards. Only one (San Juan in Site 4) of the thirty sampling sites recorded a Pb concentration beyond the WHO permissible limit of 100 mg/kg. The high Pb concentration in Site 4 was thought to be attributed mainly to vehicular emission.

**Table 3.4-1 Summary Statistics for Soil Pb (mg/kg) at Different Cities in the Central Region of the Philippines (2003-2004)**

Cities	Number of Sampling Sites	Mean (mg/kg)	Median (mg/kg)	Standard Deviations (mg/kg)	Min Value (mg/kg)	Max Value (mg/kg)
Tarlac (Site 1)	5	16.8	14.5	12.2	1.5	51.0
Cabanatuan (Site 2)	5	38.4	39.0	33.2	19.5	80.0
Malolos (Site 3)	5	52.0	54.5	33.1	6.5	99.0
San Fernando (Site 4)	5	73.9	25.5	94.4	2.5	251.0

<sup>13</sup> Site 1--Tarlac City in Tarlac; Site 2--Cabanatuan City in Nueva Ecija; Site 3--Malolos City in Bulacan; Site 4--San Fernando City in Pampanga; Site 5--Balanga City in Bataan; and Site 6--Olongapo City in Zambales

<sup>14</sup> Ona LF, Alberto AMP, Prudente JA and Sigua GC. 2006. Levels of lead in urban soils from selected cities in a Central Region of the Philippines. *Environ Sci & Pollut Res* 13 (3) 177 – 183

Cities	Number of Sampling Sites	Mean (mg/kg)	Median (mg/kg)	Standard Deviations (mg/kg)	Min Value (mg/kg)	Max Value (mg/kg)
Balanga (Site 5)	5	39.3	40.5	19.0	12.0	80.0
Olongapo (Site 6)	5	56.3	46.0	17.1	23.5	64.0

Source: Ona LF, Alberto AMP, Prudente JA and Sigua GC. 2006. Levels of lead in urban soils from selected cities in a Central Region of the Philippines. *Environ Sci & Pollut Res* 13 (3) 177 – 183

### 3.4.2 Approaches to the Problems

#### 3.4.2.1 Relevant Regulations and Standards

There are several laws in the Philippines that regulate emission of chemical substances that might generate soil pollution.

##### POPs, Dioxins and Furans

POPs exists in different media and their control can largely be addressed through various Philippine pollution control laws, such as the Clean Air Act of 1999 (RA No.8749), the Ecological Solid Waste Management Act of 2000 (RA No.9003); and the Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (RA No.6969) and the Clean Water Act of 2004 (RA No.9275).

The Clean Air Act of 1999 prescribes an emission standard ceiling of 0.1 nanogram/m<sup>3</sup> for all average values of dioxins and furans measured over a sample period lasting a minimum of six hours and a maximum of eight hours. The act requires an inventory, development of short-term and long-term national government programs for the reduction and elimination of POPs, prohibition of incineration, and promotion of a comprehensive ecological waste management plan, among other provisions. The implementing rules and regulations, and enforcement of these laws with respect to POPs are however underdeveloped.

##### PCBs

DENR issued the Chemical Control Order (CCO) for PCBs (DAO Nto.2004-01) in 2004, pursuant to the provisions of its implementing rules and regulations under RA No.6969 (DAO No.92-29 (1992)) and other applicable laws, rules, and regulations. Under this Order, the local/domestic manufacture or production of PCBs, PCB equipment and PCB contaminated equipment shall be strictly prohibited. All importation, sale, transfer or distribution of them shall no longer be allowed. PCB owners or holders are required to register to the DENR and submit a PCB management plan as well as annual report and inventory report.

#### 3.4.2.2 Relevant Authorities

##### EMB, DENR

The lead authority of management of soil quality is EMB, DENR, that has the mandate for relevant environmental laws of the Clean Air Act (1999), the Ecological Solid Waste Management Act (2001), the Toxic Substances, Hazardous and Nuclear Wastes Control Act (1990) and the Chemical Control Order for PBCBs (2004). The EMB is tasked to reduce or eliminate soil contamination with identification of criteria areas, manage and regulate discharge of the causative substances of soil contamination such as, POPs, Dioxins, Furans, heavy metals and PCBs.

### **Fertilizer and Pesticide Authority, Department of Agriculture**

The Fertilizer and Pesticide Authority, by virtue of Presidential Decree 1144, is the government agency that has the mandate for control of all pesticide. The Authority is mandated to regulate and monitor production, importation and use of pesticides and other agricultural chemicals in the Philippines.

#### **3.4.2.3 Policies and Plans**

The Government of the Philippines ratified the Stockholm Convention on Persistent Organic Pollutants (POPs) in 2004, thus, committing itself to the reduction and elimination of POPs in the country. In June 2006, the Government submitted The Philippine National Implementation Plan (NIP), which contains an assessment of the POPs issues in the country, the institutional, policy and regulatory framework, and the strategy and action plan elements of the national implementation plan.

One of the Action Plan under the National Implementation Plan is to develop strategies for identifying POPs contaminated sites in the Philippines. The four objectives are set as follows; 1) establishment of criteria for the identification of contaminated sites, 2) Establishment of a group and a pool of trained personnel with the appropriate mandate for the identification, assessment, and management of contaminated sites, 3) Identify potentially contaminated sites throughout the Philippines based on historical information, including an initial ranking of possible priorities for assessment, and 4) Complete expedited assessment (at least 100 priority sites) and come up with recommendations to manage these contaminated sites

### **3.5 Current Condition of Waste and Approaches to the Problems**

#### **3.5.1 Current Condition and Problems of Waste**

Solid waste problem is seen to be more evident in urban centers, particularly in Metro Manila. The volume of domestic waste depends largely on population and economic prosperity. In January 26, 2001, Republic Act No. 9003 or the Ecological Solid Waste Management Act of 2000 was enacted, calling for the institutionalization of a national program that will manage the control, transfer, transport, processing and disposal of solid wastes in the country.

##### **3.5.1.1 Wastes Generation**

In 2001, A World Bank study presented an estimation of waste generation by a 0.71 kg waste production rate per capita daily. The study also presumed that Metro Manila have a 0.71kg waste production rate per capita daily, other urban areas have a 0.50 kg, as compared with the 0.30 kg in rural areas. In CY 2010, the reported solid waste contribution based on a national scale revealed that NCR has the highest waste generation at 3.14 million tons per year that averagely 3.3% increased per year since 1997 as shown in the Table 3.5-1.

**Table 3.5-1 Waste Generation Estimates, 2007 and 2010 (million tons/years)**

Region	Volume (2007)	Volume (2010)	2010 % of Total	Increase rate (%) per year 2007-2010
NCR	2.86	3.14	22.97	3.26
CAR	0.21	0.21	1.50	0.00
I: Ilocos Region	0.57	0.63	4.61	3.51
II: Cagayan Valley	0.37	0.40	2.90	2.70
III: Central Luzon	1.21	1.32	9.66	3.03
IV: Southern Tagalog	1.69	2.11	15.4	8.28
V: Bicol Region	0.62	0.65	4.75	1.61
VI: Western Visayas	0.90	1.00	7.30	3.70
VII: Central Visayas	0.87	1.01	7.39	5.36
VIII: Eastern Visayas	0.49	0.51	3.70	1.36
IX: Western Mindanao	0.46	0.53	3.88	5.07
X: Northern Mindanao	0.56	0.47	3.40	-5.36
XI: Southern Mindanao	0.60	0.97	7.10	20.56
XII: Central Mindanao	0.45	0.41	3.00	-2.96
XIII: CARAGA	0.29	0.31	2.27	2.30
National	12.15	13.67	100.00	4.17

Source: National State of the Brown Environment Report (2005-2007), EMB (2009)

### 3.5.1.2 Waste Composition

As shown in the Table 3.5-2, the results of the survey conducted in the NCR revealed that organic waste (Kitchen 32.7%, Other organic 17.4%) has high proportion of the waste. Compared between 2003 and 1997, the concentration of plastic has increased.

**Table 3.5-2 Comparison of Results of Composition Analyses, municipal solid waste (Composition, % wet weight)**

Component	1997Generated Waste	2003Generated Waste*
Paper	16.8	12.5
Glass	3.4	3.1
Metals	5.2	5.0
Plastic	15.6	24.7
Kitchen/Food waste	45.4	32.7
Other Organic	11.3	17.4
Other Inorganic	2.3	4.0
Hazardous/Special		0.6
Total	100.0	100.0

Note: \*Average of the results from five LGUs, that are Makati, Muntinlupa, Pasig, Quezon City and Valenzuela.  
Source: ADB Metro Manila Solid Waste Management Project Final Report, September 2003

### 3.5.1.3 Collection and Transport of Solid Wastes

The Local Government Units (LGUs) as mandated in Ecological Solid Waste Management Act of 2000 is responsible for the collection of solid wastes. The collection of municipal solid wastes is done in two ways, either by self-administration or through private contractors. Based on estimates on

a national scale, the average collection efficiency rates in urban areas is about 70%, for rural areas is 40% and for Metro Manila 83% (Philippine Environment Monitor 2004).

According to the Brown Report 2005-2007, out of the 17 LGUs in Metro Manila, 11 have contracted collection. The collection service covers between 80%-100% of their respective jurisdiction, with some barangays and subdivisions having their own collection regimens. The most common form of collection is through door to door wherein the collection trucks pass through a designated community route or via curbside collection.

### 3.5.1.4 Existing Solid Wastes Disposal Facilities

As shown in Table 3.5-3, LGUs are still operating their open dumpsites, which is violation of RA No.9003. There are 790 were open dump sites, notwithstanding that these are usually located along river banks which are considered as inappropriate location for a disposal facility and cause pollution problems for soil and water. Metro Manila has no open dumpsites. According to the Country Environmental Analysis 2008 (ADB), the rehabilitated the Payatas (Quezon City) controlled disposal facility, a registered project under the Clean Development Mechanism (CDM), is now recovering methane and produces about 116,339 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) in certified emission reductions per year. The Rizal Landfill is only one sanitary landfill in the Metro Manila. /The Rizal Landfill started to operate in 2002. The site received approximately 2,300t/day in 2002. However, this had risen to around 3,000t/day in 2005 and 4,000t/day in 2006.

**Table 3.5-3 Number of Open Dump, Controlled Dump, Materials Recovery Facility (MRF) and Sanitary Landfill (SLF) by Region (2010)**

Region	Open Dumpsite	Controlled Disposal Facilities	Material Recovery Facility	Sanitary Landfill	Sanitary Landfill undergoing construction with ECC
NCR			933	1	
CAR	15		154	1	2
I	74	37	434	2	5
II	33	26	156	2	16
III	92	17	291	5	3
IV-A	53	59	648	7	3
IV-B	44	22	115	2	1
V	74	7	292	0	1
VI	97	18	640	3	4
VII	116	50	390	6	1
VIII	69	11	875	1	7
IX	29	27	248	0	
X	36	40	436	0	1
XI	1	27	607	0	1
XII	14	32	175	2	1
CARAGA	43	7	548	0	2
ARMM			15	1	
<b>TOTAL</b>	<b>790</b>	<b>382</b>	<b>6,957</b>	<b>33</b>	<b>48</b>

Source: National Solid Waste Management Commission website (accessed in April 2011)

### 3.5.1.5 Recycling and Markets

There is no reliable data on the extent of recycling and composting in the country, as recycling remains largely an informal-sector activity. Data from some sectors indicate that recycling is on the rise. Yet, only a small percentage of the total waste generated in the Philippines is recycled or composted. According to the National State of the Brown Environment Report (2005-2007) (DENR), for Metro Manila, 13 percent of solid wastes was recycled in 2000 with the concerted efforts of several sectors in promoting waste segregation at source, composting and recycling. As shown in the Table 3.5-4, from 1998 to 2003, the volume of waste traded in Metro Manila has tripled from 69,400 MT to 209,770 MT.

**Table 3.5-4 Waste Recovery in Metro Manila**

Year	Material Purchased	Value (million pesos)
1998	69,400	95.2
1999	95,600	124.5
2000	101,850	132.5
2003	209,770	268.0

Source: National State of the Brown Environment Report (2005-2007), EMB (2009)

As of 2010, a total of 6,957 materials recovery facilities ranging from composting, material recovering and storage facilities serve either one or a cluster of barangays, or an entire LGU. Of these facilities, 933 are in Metro Manila<sup>15</sup>.

### 3.5.1.6 Hazardous Waste

As shown in the Table 3.5-5, the top three hazardous wastes generated in the Philippines are inorganic, alkali, and organic wastes in (Table 3.5-5). Fifty percent is exported for disposal (or treatment) and the rest is either treated locally or temporarily stored on-site. Hazardous waste in Metro Manila is projected to rise from 232,000 tons/year in 1995 to 659,000 tons/year by 2010<sup>16</sup>.

The number of hazardous waste generators (HWGs) has also been increased since 2004 as shown in the Figure 3.5-1. To date in 2008, a total of 10,034 HWGs (8,586 firms; 1,448 hospitals) were registered in the Philippines. Out of the total registered HWGs, the National Capital Region had the most number with 2,351 or 23% while 1,670 or 17% can be found in Region 4-A.

**Table 3.5-5 Chemical Waste Generation and Trade**

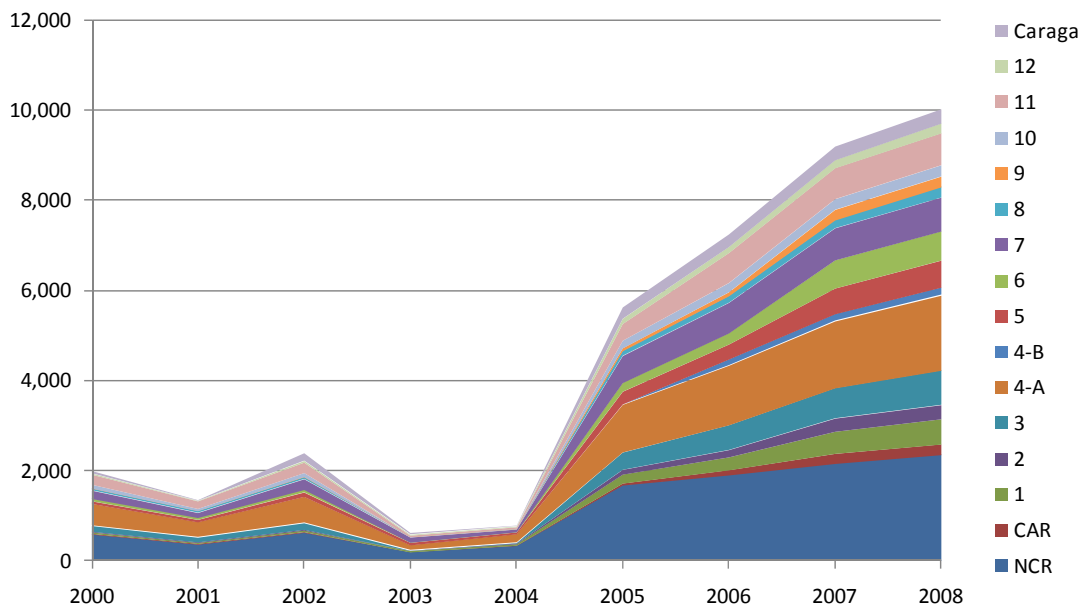
Type of Chemical Waste	Generation (metric tons/years)	Export (metric tons/years)
Plating waste with cyanide	11,233	1,661
Acid wastes	26,900	1,146
Alkali wastes	56,099	43,470
Inorganic chemical wastes	67,756	32,447
Reactive chemical wastes	347	249
Paints, resins, lattices, dyes, adhesives, organic sludge	14,769	12,602
Organic solvent	2,175	1,204

<sup>15</sup> National Solid Waste Management Commission website (Accessed in April 2011)

<sup>16</sup> Country Environmental Analysis 2008-Philippines ADB (2009)

Type of Chemical Waste	Generation (metric tons/years)	Export (metric tons/years)
Putrescible/Organic wastes	30,588	12,429
Textile	81	71
Oil	22,549	8,632
Containers	3,499	2,097
Immobilized wastes	516	391
Organic chemicals	16,226	1,426
Pathological/Infectious wastes	15,467	12,526
Asbestos	10,145	9,984
Drug wastes, medicines	1	1
Pesticides	1	1
Total	278,351	140,336

Source: JICA-DENR Study on Hazardous Waste Management in the Republic of the Philippines (Phase 1), Final Report, June 2001.



Source: Compendium of Basic ENR Statistics for Operations and Management (Second Edition) (2000-2008), DENR (2011)

**Figure 3.5-1 Number of Registered Hazardous Wastes Generators (HWG) by Region: 2000-2008**

### 3.5.2 Approaches to the Problems

#### 3.5.2.1 Relevant Regulations and Standards

The Table 3.5-6 shows the relevant regulations of solid waste and hazardous waste management in the Philippines.

#### **Republic Act No.9003 (2001): Ecological Solid Waste Management Act**

The existing National Legislation, which governs SWM in the Philippines, is RA No.9003: Ecological Solid Waste management Act of 2000. The implementing rules and regulations (IRRs)

of RA No.9003 were issued on December 20, 2001 as DENR Administrative Order No.2001-34. As a national policy, RA No.9003 declares the adoption of a systematic, comprehensive and ecological solid waste management program in the Philippines. A National Solid Waste Management Framework (NSWMF) was formulated by the NSWMC, with public participation, in 2004 in order to ensure that the policy is effectively carried out as per Section 15 of RA9003. The framework provides a comprehensive but practical guide on SWM planning for LGUs and other concerned sectors involved in the implementation, in part or in whole, of RA 9003 and its IRR.

According to the Act, different levels of local government are responsible for various aspects of waste management. The barangays are responsible for ensuring segregation at source, collection of the bio-degradable and recyclable components, and setting up materials-recovery facilities. The city or municipality takes care of collecting the residual non-biodegradable and hazardous waste, and its final disposal, except in Metro Manila where disposal is within the mandate of the Metro Manila Development Authority.

**RA No.6969 (1990); Toxic Substances, Hazardous and Nuclear Wastes Control Act**

As for hazardous waste management, the RA No.6969, commonly known as the Toxic Substances, Hazardous and Nuclear Wastes Control Act was enacted in 1990. RA No.6969 mandates control and management of import, manufacture, process, distribution, use, transport, treatment, and disposal of toxic substances and hazardous and nuclear wastes in the country. Under the Act, the hazardous waste are defines as;

- 1) substances that are without any safe commercial, industrial, agricultural or economic usage and are shipped, transported or brought from the country of origin for dumping or disposal into or in transit through any part of the territory of the Philippines.
- 2) by-products, side-products, process residues, spent reaction media, contaminated plant or equipment or other substances from manufacturing operations, and as consumer discards of manufactured products

**Table 3.5-6 Relevant Regulation of Solid Waste and Hazardous Waste Management in the Philippines**

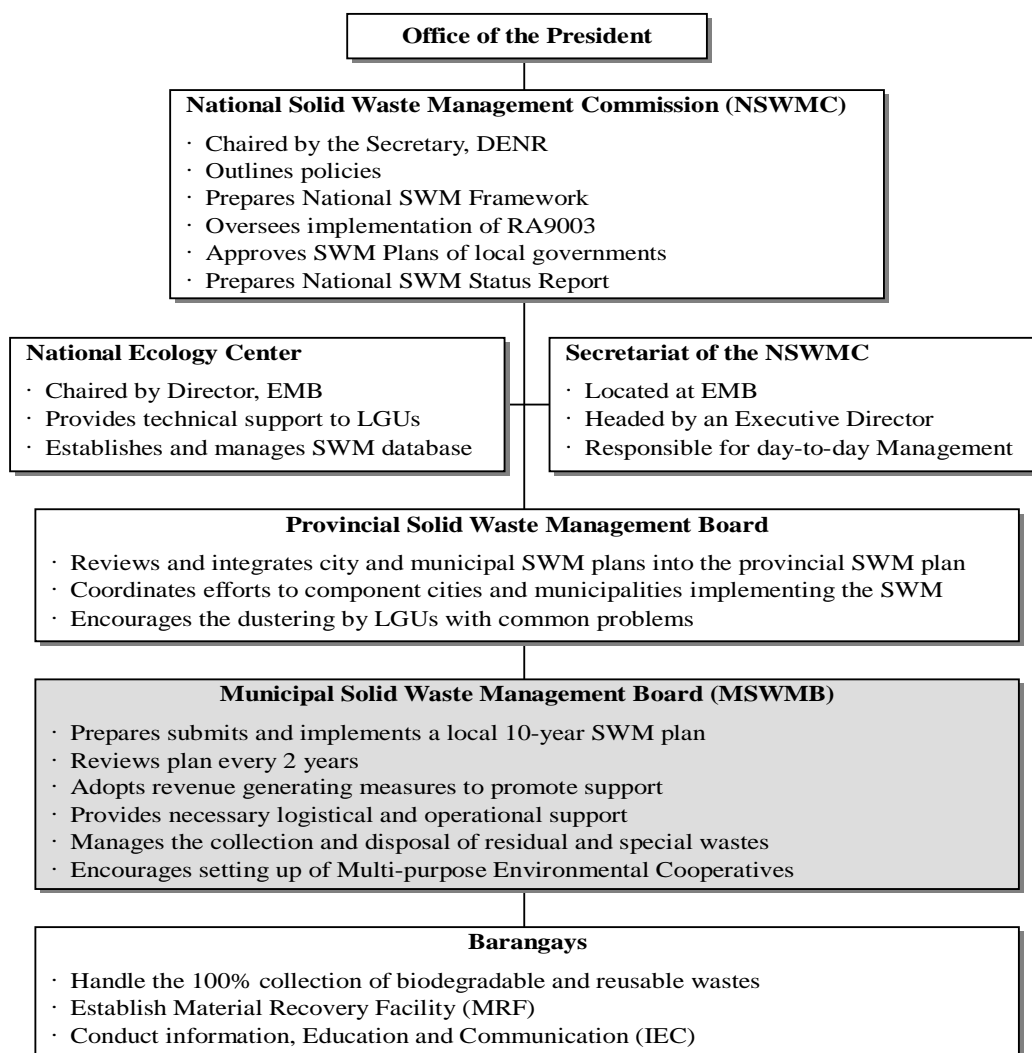
<b>Regulation</b>	<b>Year</b>	<b>Content</b>
PD 825	1975	Providing penalty for improper disposal of garbage and other forms of uncleanness and for other purposes.
RA 6969	1990	Toxic Substances, Hazardous and Nuclear Wastes Control Act
DAO 1992-29	1992	Implementing rules and regulations of RA No.6969.
DAO 1994-28	1994	Interim guidelines for the importation of recyclable materials containing hazardous substances.
DAO 1997-28	1997	Amending annex A of DAO 28 series of 1994 Interim guidelines for the importation of recyclable materials containing hazardous substances.
DAO 1998-49	1998	Technical guidelines for municipal solid waste disposal.
DAO 1998-50	1998	Adopting the landfill site identification and screening criteria for municipal solid waste disposal facilities.
RA 9003	2000	Ecological Solid Waste management Act
DAO 2001-34	2001	Implementing rules and regulations of RA No.9003.
DAO 2004-36	2004	Procedural Manual Title III of DAO 92-29 " Hazardous Waste Management"

Regulation	Year	Content
DAO 2006-05	2006	Adoption of IEE checklist and IEE report on the ECC processing of categorized final disposal facility (sanitary landfill)
DAO 2006-09	2006	General guidelines on the closure and rehabilitation of waste disposal facilities
DAO 2006-10	2006	Guidelines on the categorized final disposal facilities

Source: Website of EMB (Accessed in April 2011)

### 3.5.2.2 Relevant Authorities

Over the years, successive laws and issuances mandating different agencies to manage solid waste has resulted in overlapping responsibilities. The Local Government Code of 1991 (LGC) re-affirmed the primary responsibility of LGUs to plan and implement SWM programs within their localities. RA No.9003 reinforces this responsibility and defines the national oversight mandate of **National Solid Waste Management Commission (NSWMC)**. The current institutional arrangement of the SWM of the Philippines is illustrated in Figure 3.5-2.



Source: The Master Plan on Solid Waste Management for Boracay Island and Municipality of Malay Final Report, Nippon Koei Co., Ltd. (March 2008)

**Figure 3.5-2 Institutional Arrangement of SWM in the Philippines**

The current responsibilities of the different agencies concerned with SWM are explained in Table 3.5-7.

**Table 3.5-7 Organizational Aspects of SWM**

<b>Organizations</b>	<b>Responsibilities</b>
Department of Environment and Natural Resources (DENR)	Sets standards, criteria, and guidelines for all aspects of solid waste management. Performs regulatory as well as monitoring and enforcement functions with regard to air emissions and effluent of solid waste management systems. Chairs the NSWMC, which sets the overall policy, prepares the national framework, and approves local SWM plans.
Environmental Management Bureau (EMB)	EMB is a line agency of DENR. Chairs the National Ecology Center composed of multi-sectoral and multi-disciplinary experts tasked to facilitate training and education on the ESWM. Establishes and manages an information database. Provides secretarial support to the Commission.
Department of Health (DOH)	Regulates the storage of waste in food establishments with respect to construction, maintenance, and placement of storage containers within their establishments. Provides guidelines for proper management and disposal of hospital wastes, and other infectious wastes.
Department of Science and Technology (DOST)	Conducts research and develops technologies on alternative and clean technologies for the usage of non-recyclable and non-reusable materials; improves utilization of organic materials; Evaluates available technologies through the Technology Verification Program.
Department of Education (DOE)	Incorporates ESWM in the school systems at all levels, emphasizing the involvement of the school administrators, teaching and non-teaching staff, and students in school-wide and nearby community waste management actions, and in the strengthening of the waste management content in the curricula.
Department of Interior and Local Government (DOILG)	Develops a coordinative mechanism that ensures that LGUs are significantly guided in the preparation of the SWM Plans and that all SWM Plans are integrated from the provincial, municipal and barangay levels; Monitors creation of Local SWM Boards, and is active in education and public information on SWM of every LGUs, down to the barangay levels.
Department of Trade and Industry (DTI)	Formulates and implements a coding system for packaging materials and products to facilitate recycling and re-use. Publishes study on existing markets for recyclables and recommends steps to expand these markets.
Department of Agriculture (DA)	Publishes an inventory of markets and demands for compost. Assists compost producers to ensure that the compost produced conforms to standards.
Department of Tourism (DOT)	Supports the MOM, barangays and private sector on Boracay Island by providing grants through the DOT-EPG MRF Project.
Philippine Coast Guard (PCG)	Responsible for preventing ocean dumping of solid waste.

Source: The Master Plan on Solid Waste Management for Boracay Island and Municipality of Malay Final Report, Nippon Koei Co., Ltd. (March 2008)

### 3.5.2.3 Policies and Plans

Since the passage of RA No.9003, the Philippines have a comprehensive and integrated SWM policy and legal framework. The next step for the Philippines has been to implement the law and ensure its sustainable impacts and the following challenges as shown in Table 3.5-7 have been addressed as goals of RA No.9003.

As for LGUS, according to Section 16 of RA No.9003, the province, city or municipality, through its local solid waste management boards, shall prepare its 10-year Solid Waste Management Plan consistent with the national solid waste management framework which has been prepared by the

NSWMC. Section 4 of Rule VI of the IRRs says that the municipal SWM plan shall integrate the various solid waste management plans and strategies of the barangays in its management plan. In addition the NSWMC has issued the annotated outlines as a guideline for the LGUs, which explains the structure and contents of the 10-year SWM Plan, in accordance with Section 17 of RA No.9003.

#### 3.5.2.4 Other Approaches to the Problems

##### *NGO/NPO Activities*

Waste management is one of the well-developed sectors of non-governmental organizations (NGOs) and non-profit organizations (NPOs) in the Philippines. Especially in Metro Manila, where the problems of SWM were pronounced NGOs have long campaigned for sectoral changes favoring community based solutions. There are several active NGOs as follows:

##### (1) Mother Earth Foundation:

Mother Earth Foundation has been conducted a lot of workshops for environmental friendly waste management in more than 2,500 of Barangays for 12 years. They have also provided environmental education programs to the people and governmental officers which counted more than 130,000. Moreover, they have supported to establish more than 1,000 of Materials Recovery Facilities.

##### (2) Philippine Business for the Environment:

Philippine Business for the Environment which was established in 1992 by the business entrepreneurs play a central role of the Industrial Waste Exchange Network. They are publishing quarterly “Business and Environment” in which “Material available, Material wanted” is set up to contain information about the waste which the proponents want to manage or recycle.

##### (3) Clean and Green Foundation Inc.

The Clean and Green Foundation Inc. was established in 1994 in order for the protection, preservation and enhancement of the environment. They also play as an admission Office for “Green Choice Philippines” which is the Philippines' Ecolabelling Programme.

##### (4) Pollution Control Association of the Philippines

The Pollution Control Association of the Philippines were established in 1980 for public awareness of pollution control and improvement of communication with industry and government. In the Cebu, they provide monthly seminars about pollution control which includes the seminars about hazardous waste management as well as solid waste management.

##### (5) Solid Waste Management Association of the Philippines (SWAPP)

The Solid Waste Management Association of the Philippines established in 1999 provides the seminars about waste management for local government units and develops textbooks supported by donors such as USAEP, which includes “Barangay Planning and Budgeting for Solid Waste Management Program (2002)” and “Manual on the Establishment and Operations of A Materials Recovery Facility (2002)”.

**Chapter 4**  
**Social Environment**



## Chapter 4. Social Environment

### 4.1 General Condition

#### 4.1.1 General Features

As of the 2007 census, the Philippine population is at 88.57 million, with an annual growth rate of 2.04%. The World Bank estimates the urban population to be 64.92 % of the total population in 2008. On the one hand, 35.08 % of the total population is located in rural areas. Filipinos are predominantly of Malay descent, although many have mixed ancestry, with Chinese and Spanish as the largest influences.

Over 150 native languages and dialects are spoken, but Filipino (based on Tagalog) is the national language. English is also an official language. There are eight major dialects - Tagalog, Cebuano, Ilocano, Hiligaynon or Ilonggo, Bicol, Waray, Pampango, and Pangasinan.

Education is valued among most Filipinos –simple literacy rate is at 93.4%. For the 2008-2009 school year, the participation rates for elementary and secondary are at 85.12% and 60.74% respectively (NSCB Primer, 2011).

#### 4.1.2 Religion

The Philippines is one of two predominantly Roman Catholic nations in Asia-Pacific., the other being East Timor. Roman Catholics comprise 80.9% of the total population. 5% are Muslims, 2.8% are Evangelical, 2.3% are Iglesia ni Kristo, 2% are Aglipayan, and “other Christian” are 4.5% (NSCB Primer, 2011).

Since an estimated 17% of the population is said to be indigenous, there are Filipinos who continue to practice traditional Philippine regions and/or adhere to indigenous beliefs. Animism and folk religions are evident in some sections of Philippine society.

#### 4.1.3 Culture

The culture of the Philippines reflects the complexity of the history of the Philippines through the blending of many diverse traditional Malay heritage mixed with Spanish, American and other Asian cultures. During the Spain Colonization, Spanish and Mexican brought various kinds of their culture and greatly influenced to traditional Philippine folk music, cuisine, festivities and religion. Both the historic town of Vigan, which is the best-preserved example of a planned Spanish colonial town in Asia, and Baroque Churches throughout the country, which style is reinterpretation of European Baroque by Chinese and Philippine craftsmen, were registered as World Heritage Sites.

On the other hand, unique indigenous culture has been identified in various regions. The Philippines designated both the Hudhud Chunt of the Ifugao which is a long tale sung during harvesting and the Darangen epic of the Maranao people of lake Lanao as intangible cultural heritage in the Philippines.

## 4.2 Major Social Issues

### 4.2.1 Poverty

#### 4.2.1.1 General Features/ problems

Republic Act 8425, otherwise known as the Social Reform and Poverty Alleviation Act officially defines the "poor" as those "individuals and families whose income fall below the poverty threshold as defined by the government and/or those that cannot afford in a sustained manner to provide their basic needs of food, health, education, housing and other amenities of life."

The latest official poverty data indicate that a Filipino needed Php974 in 2009 to meet his/her monthly food needs and Php1,403 to stay out of poverty. Consequently, a Filipino family of five needed Php4,869 monthly income to meet the basic food needs and Php 7,017 to stay out of poverty. As shown in the Table 4.2-1, in terms of poverty incidence among families, there was a slight reduction from 21.1% in 2006 to 20.9% in 2009. Moreover, subsistence incidence among population improved from 11.7% in 2006 to 10.8% in 2009. While there was a decrease in the poverty incidence among families from 2006 to 2009, in terms of poverty incidence among population, there was a very slight increase from 26.4% in 2006 to 26.5% in 2009. In terms of the magnitude of the poor families, there was an increase of about 185,000 from 3.67 million in 2006 to 3.86 million in 2009. On the other hand, the magnitude of poor population increased by almost 970,000 Filipinos from 22.2 million in 2006 to 23.1 million in 2009. Meanwhile, the magnitude of subsistence poor families decreased by about 58,000 from 1.51 million in 2006 to 1.45 million in 2009.

**Table 4.2-1 Annual Per Capita Thresholds, Poverty Incidence and Magnitude of Poor**

Statistics	Estimate		
	2003	2006	2009
Annual Per Capita Poverty Threshold (PhP)	10,976	13,348	16,841
Poverty Incidence (%) Families (Population)	20.0 (24.9)	21.1 (26.4)	20.9 (26.5)
Magnitude of poor (in million) Families (Population)	3.29 (19.8)	3.67 (22.17)	3.86 (23.14)
Subsistence Incidence <sup>1</sup> (%) Families (Population)	8.2 (11.1)	8.7 (11.7)	7.9 (10.8)
Magnitude of subsistence poor (in million) Families (Population)	1.36 (8.8)	1.51 (9.85)	1.45 (9.44)

1: Subsistence Incidence is the proportion of families/population whose income cannot provide the basic food requirements called the food or subsistence threshold to the total number of families/population.

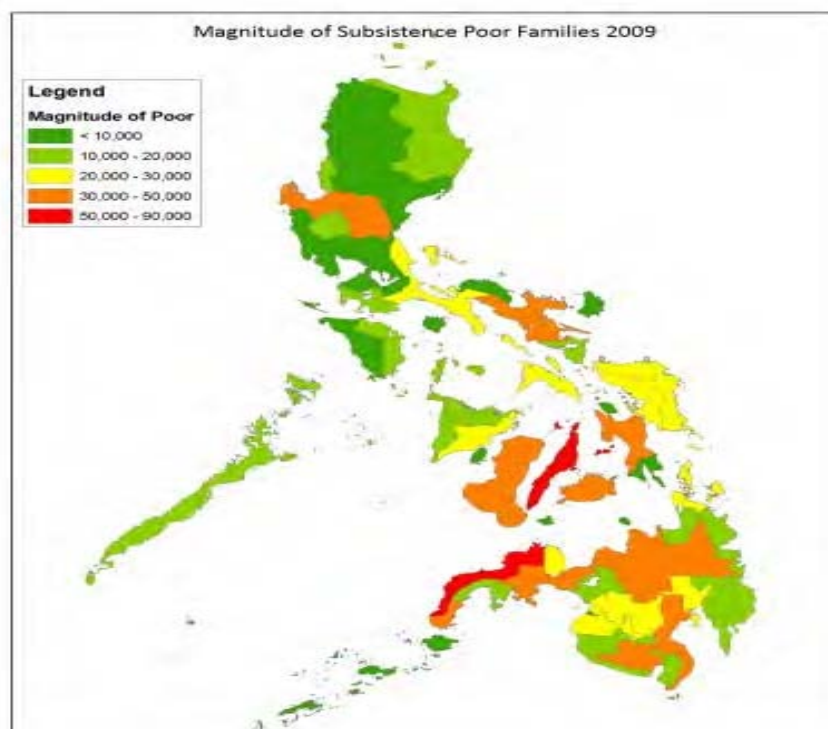
Source: Poverty Report 2009, National Statistical Coordination Board (2011)

Though the Poverty Threshold is calculated by each region, poverty incidence varies widely in different regions. As shown in the Table 4.2-2, Caraga and ARMM consistently posted the highest poverty incidence among families in 2006 and 2009. Poverty incidence of Caraga and ARMM were 39.8% and 38.1% in 2009, respectively. Zamboanga del Norte in ARMM was the province that the poverty incidence was highest in 2009, that was 52.9%. On the other hand, poverty incidence of the National Capital Region (NCR) was 2.6% in 2009.

**Table 4.2-2 Annual Per Capita Poverty Threshold and Poverty Incidence among Families**

Region	Annual Per Capita Poverty Threshold (PhP)			Poverty Incidence among Families (%)			Share to Total Poor Families (%)
	2003	2006	2009	2003	2006	2009	2009
PHILIPPINES	10,976	13,348	16,841	20.0	21.1	20.9	100.0
NCR	13,997	16,487	19,802	2.1	3.4	2.6	1.7
CAR	10,881	12,976	16,122	16.1	18.6	17.1	1.4
Region I	11,791	14,350	17,768	17.8	20.4	17.8	4.6
Region II	10,350	12,212	15,306	15.2	15.5	14.5	2.4
Region III	12,771	15,374	18,981	9.4	12.0	12.0	6.3
Region IV-A	12,394	14,284	17,779	9.2	9.4	10.3	6.4
Region IV-B	10,398	12,610	15,769	29.8	34.3	27.6	4.2
Region V	11,476	13,645	17,146	38.0	36.1	36.0	10.0
Region VI	10,548	12,432	16,036	23.5	22.1	23.8	9.0
Region VII	11,798	14,468	17,848	32.1	33.5	30.2	10.8
Region VIII	9,850	11,885	15,910	30.2	31.1	33.2	7.4
Region IX	9,642	11,810	15,160	40.5	34.2	36.6	6.3
Region X	10,501	12,987	16,568	32.4	32.7	32.8	7.1
Region XI	10,737	13,469	17,040	25.4	26.2	25.6	5.9
Region XII	10,277	12,530	15,762	27.2	27.1	28.1	5.8
Caraga	10,355	12,935	16,858	37.6	36.9	39.8	4.9
ARMM	9,664	12,358	16,334	25.0	36.5	38.1	5.7

Source: Poverty Report 2009, National Statistical Coordination Board (2011)



Source: 2009 Philippine Poverty Statistics, NSCB

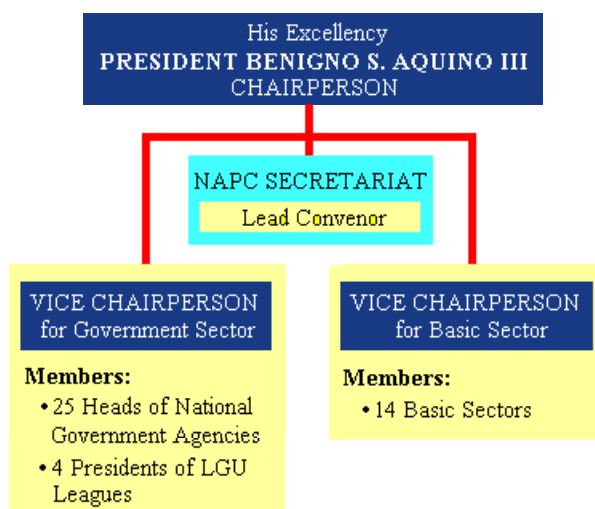
**Figure 4.2-1 Magnitude of subsistence poor families, by province: 2009.**

#### 4.2.1.2 Relevant Authorities

##### **National Anti-Poverty Commission (NAPC)**

On December 11, 1997, Republic Act 8425, otherwise known as the "Social Reform and Poverty Alleviation Act" was passed creating the National Anti-Poverty Commission (NAPC) and became effective on June 30, 1998. Attached to the Office of the President, NAPC serves as the coordinating and advisory body for the implementation of the Social Reform Agenda (SRA).

As shown in the Figure 4.2-1, the NAPC is composed of a government sector component, with twenty-five national government agencies and presidents of the four Local Government Leagues; and a basic sector component, with fourteen sectoral representatives.



Source: NAPC website (accessed in April 2011)

**Figure 4.2-1 Organization Chart of NAPC**

NAPC's mandate is as follows;

- To act as the "coordinating and advisory body" that exercises oversight functions in the implementation of the Social Reform Agenda (SRA) and ensures that is incorporated into the formulation of the national, regional, sub-regional and local development plans;
- To operate on the principle and strategy of institutionalizing the basic sector and NGO participation in the SRA management cycle;
- To develop and promote microfinance through the establishment of the People's Development Trust Fund (PDTF), strengthening of the People's Credit and Finance Corporation as the forerunner for microfinance services; and
- encouraging private and government financial institutions to open a special window for microfinance

#### 4.2.1.3 Relevant Policies/Plans

##### **Medium-Term Philippine Development Plan (MTPDP) 2004-2010 (2004)**

The basic task of the MTPDP is "to fight poverty by building prosperity for the greatest number of the Filipino people." The five main parts of the plan cover (i) economic growth and job creation, (ii) energy, (iii) social justice and basic needs, (iv) education and youth opportunity, and (v)

anticorruption and good governance. The specified target is to reduce the poverty incidence of families from 28.4% in 2000 to 17.88% by 2010, and to reduce the subsistence incidence of families from 13.1 in 2000 to 8.98% by 2010.

### **Government Poverty Reduction Programs and Plans**

Each president has had specific poverty reduction projects: The Tulong sa Tao Program of the Aquino Administration; the Social Reform Agenda (SRA) of the Ramos administration, the Lingap Para sa Mahihirap program of President Estrada, and the Kapit-Bisig Laban sa Kahirapan (KALAHI) Program of the Arroyo Government.

Kapit-Bisig Laban sa Kahirapan (KALAHI) program. Launched in 2001 under the supervision of the National Anti-Poverty Commission (NAPC), there are five types of KALAHI Special Projects which serve as the Government's vehicle to reach out to the poor: (a) KALAHI Rural Projects serve 90 priority rural barangays which will be provided with potable water systems, farm-to market roads, multi-purpose or day-care centers and micro-enterprises and livelihood activities; (b) KALAHI Urban Projects are located in 8 cities, offering human development services as well as housing and land for poor urban families; (c) KALAHI Social Initiative Projects (i.e. animal dispersal, abaca plantation, water system installation, core shelter construction and farm-to market roads), comprise 13 projects in 6 provinces, 7 municipalities, and 25 barangays costing P4 million for 2003; (d) KALAHI Resettlement Areas serve 5,000 households in six underdeveloped resettlement sites in 3 regions; and (e) KALAHI in Conflict Areas, implemented in 100 communities in conflict areas.

The current Aquino III Administration continues to support the KALAHI project.

## **4.2.2 Gender and Child Labor**

### **4.2.2.1 General Features/ problems**

The Philippines is one of the countries that the gender related index is high in Southeast Asian nations. For instance, the Gender Empowerment Index (GEM) of the Philippines ranks 45th in the 177 countries, whereas the Human Development Index (HDI) is still 90th of the world. As shown in the Table 4.2-3, the women exceed the man in several indexes such as the projected life expectancy at birth and basic literacy rate. On the other hand, the estimated earned income of women is only 60% of that of man.

Though the gender index is averagely excellent in the entire country, the situation of gender consciousness and the status of women are totally different between income classes. The women in the upper-income class tend to free from the women's traditional roles, whereas the women in the low-income class tend to engage in the women's traditional roles such as housework and child care. Moreover, recently the proportion of women of Overseas Filipino Workers (OFWs) is increasing that account for about half of them. This means that women's role are shifting from a traditional housewife to income provider to support their family. Many OFW women were reported to suffer the difficulty like a psychological stress that they have to work abroad for many years without their family or human-rights abuse in the workplace.

**Table 4.2-3 Gender Statistics in the Philippines**

Contents	Women	Men
Projected Life Expectancy at Birth (2005)	73.1 years	67.6 years
Basic Literacy Rate (2003)	94.3%	92.6%
Distribution of the Population 6 Years Old and Over Jan 2007 LFS/NSO by Highest Educational Attainment (2003)		
Completed elementary	11.3%	11.2%
Completed high school	15.8%	15.2%
College or higher	21.2%	24.4%
Proportion of Children 12-23 Months Old Who Received All Basic Vaccinations (2008)	78.5%	80.5%
Infant Mortality Rate (per 1,000 live births) (2008)	25%	31%
Labor Force Participation Rate (2009)	49.3%	78.8%
Unemployment Rate (2009)	6.7%	7.4%
Major Industry Division Where Most are Employed (2009)	Wholesale & retail	Agriculture, hunting & forestry
Estimated Average Earned Income (2005) <sup>1</sup>	3,883 USD	6,375 USD
Number of Overseas Filipino Workers (2008)	968,000	1,034,000
Most Common Occupation of OFWs (2008)	Laborers and Unskilled	Trades and related Workers

Source: Women and Men Fact Sheet, NSCB, (March 2010), <sup>1</sup>Human Development Report 2007, UNDP (2007)

On the other hand, the continuation of a high level of poverty and lack of access to quality education tend to perpetuate the problem of child labor in the Philippines in hazardous types of employment. Many of these children work in conditions that are extremely unfavorable to their development and detrimental to their health. As shown in the Table 4.2-4, Four million (16.2%) of these children were economically active in October 2001. More than two-thirds (69.8%) of the working children were found in the rural areas.

**Table 4.2-4 Number and Percent of Children 5-17 Years Olds: October 2001**  
(Number in thousands)

	Total			Working Children					
	Both sexes	Male	Female	Both sexes		Male		Female	
All ages	24,851	12,830	12,021	4,018	16.2%	2,548	19.9%	1,470	12.2%
5-9	9,667	4,995	4,673	246	2.5%	144	2.9%	102	2.2%
10-14	10,207	5,277	4,930	1,934	18.9%	1,234	23.4%	700	14.2%
15-17	4,976	2,558	2,418	1,837	36.9%	1,170	45.7%	667	27.6%
Urban	11,186	5,730	5,455	1,213	10.8%	707	12.3%	507	9.3%
5-9	4,283	2,190	2,093	67	1.6%	35	1.6%	32	1.5%
10-14	4,520	2,321	2,199	529	11.7%	315	13.6%	215	9.8%
15-17	2,383	1,220	1,163	617	25.9%	357	29.3%	260	22.4%
Rural	13,665	7,100	6,566	2,805	20.5%	1,841	25.9%	964	14.7%
5-9	5,384	2,804	2,580	180	3.3%	109	3.9%	71	2.8%
10-14	5,688	2,957	2,731	1,405	24.7%	919	31.1%	486	17.8%
15-17	2,594	1,339	1,255	1,221	47.1%	813	60.7%	407	32.4%

Source: Website of ILO- SEAPAT (South-East Asia and the Pacific Multidisciplinary Advisory Team) (Accessed in May 2011)

#### 4.2.2.2 Relevant Authorities

##### **Philippine Commission on Women (PCW)**

The National Commission on the Role of Filipino Women (NCRFW) was established in as an advisory body to the President. It was renamed the Philippine Commission on Women (PCW) with the enactment of Republic Act 9710. It is mandated “to review, evaluate, and recommend measures, including priorities to ensure the full integration of women for economic, social and cultural development at national, regional and international levels, and to ensure further equality between women and men” under the Presidential Decree No.633. The function of the PCW is as follows:

- To prepare, assess and update the National Plan for Women
- To provide a database for information relating to women
- TO undertake the advocacy of promoting economic, social and political empowerment of women
- To implement the policy studies and the legislation reviews
- To provide technical assistance in the strengthening of mechanisms on Gender and Development (GAD)
- To monitor and assess the implementation of laws and policies on women including the implementation of international conventions such as the Beijing Platform for Action
- To implement pilot projects for the delivery of services for women as basis for policy formulation and program recommendations

In addition to that, the PCW is acting as a center of NGOs related to gender.

The PCW formulated the Philippine Plan for Gender-responsive Development (PPGD) 1995-2025 which was adopted as the country's main vehicle for implementing the 1995 Beijing Declaration and Platform for adopted at the 1995 UN 4th World Conference on Women.

##### **Council for the Welfare of Children (CWC)**

The Council for the Welfare of Children (CWC) under the Office of the President established in 1974 is the national agency responsible for affairs concerning children. Its ultimate mission is to ensure protection of children against all forms of abuse and exploitation, to defend children's rights, promote their welfare and development, and secure that they are given priority attention at all levels both by government and civil society. CWC in cooperation with the Department of Interior and Local Government (DILG) issued in 2002 the manual on “Mainstreaming Child Rights in Local Development Planning: A Guide to Localizing Child 21”.

#### 4.2.2.3 Relevant Regulations and Policies/Plans

##### **Relevant Regulation of Gender**

In 1980, the Philippines ratified the Committee on the Elimination of Discrimination against Women (CEDAW). The Philippine Constitution of 1987 stipulates that the State recognizes the role of women in nation-building, and shall ensure the fundamental equality before the law of women and men. The major relevant regulations of gender are as follows:

- Republic Act No.7192 (Women in Development and Nation Building Act) (1991)

- Republic Act No.7877 (Anti-Sexual Harassment Act) (1995)
- Republic Act No.9208 (Anti-Trafficking Act) (2003)

#### **Philippine Plan for Gender-responsive Development (PPGD) 1995-2025 (1995)**

The Philippine Plan for Gender-responsive Development (PPGD) 1995-2025, which contains the long term vision of women's empowerment and gender equality and translates the Beijing Platform for Action into policies and strategies and programs and projects for Filipino women, includes the following issues.

- GAD mainstreaming (Development and regulation for gender, establishment of GAD office in each authority, etc)
- Economical Strategy (Industrial employment plan for gender issue, Protection of OFW women, etc)
- Social/Cultural strategy (Gender image, Reform of media Monitoring of human rights, etc)
- Clarification of the political/legal problems ( Relevant rules for gender, Education toward women, etc)

#### **National Plan of Action for Children 2005-2010 (NPAC) (1991)**

The National Plan of Action for Children (NPAC) 2005-2010 formulated in 1991 seeks to further concretize the vision of the National Strategic Framework for Plan Development for Children 2000-2025 or Child 21 into clear, actionable, and time-bound plans within a shorter, five-year time frame (2005-2010). It also seeks to incorporate and align all goals and targets with the Milenium Development Goal as well as World Fit for Children goals and targets of UNICEF.

### 4.2.3 Trend concerning Protection of Rights on Socially Vulnerable Groups and Approaches to Such Problems

#### 4.2.3.1 General Features/ Problems

The Medium Term Philippine Development Plan 2004-2010 cites a growing number of vulnerable groups in the country who are continuously threatened and marginalized by social, economic and environmental pressures as well as by natural disasters and economic shocks. "These groups include women in especially difficult circumstances, children in need of social protection, disadvantaged youth, persons with disabilities, older persons, workers in the informal sector, indigenous peoples and upland settlers, dysfunctional families, victims of disasters and calamities, landless farmers/rural workers/farm workers, fisherfolk in coastal, marine and freshwater ecosystems, persons adversely affected by socioeconomic risks and shocks, workers in the formal sector vulnerable to work hazards and arrangements, and returning migrant workers."<sup>17</sup>

However there are no accurate statistical data of them, the Department of Health (DOH) in its National Objectives for Health Philippines 2005-2010, enumerated some of the vulnerable population groups in the Philippines using the defining characteristics of age, sex, ethnicity and

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<sup>17</sup> Medium Term Philippine Development Plan 2004-2010, p.152.

location<sup>18</sup> as shown the Table 4.2-5. It can be found that there are a large number of children and woman who are vulnerable. Moreover, socially vulnerable groups are the population groups more vulnerable to disease because of one or a combination of factors other than poverty: stage of physiologic development, socio-cultural behavioral patterns and lack of access to mainstream health services.

**Table 4.2-5 Estimated number of selected vulnerable population groups in the Philippines (2004)**

<b>Vulnerable Population</b>	<b>Estimated Number</b>
Children under 1 year old	2 million
Children 1-4 years old	10 million
Children 5-9 years old	10 million
Young people 10-24 years old	26 million
Women of reproductive age (15-49 years old)	20 million
Pregnant women	3 to 4 million
Older persons	5 million
Persons with disabilities (PWD)	8 million
Indigenous people	13 million
Farmers, peasants and fisherfolks	7 to 10 million
Workers, formal sector	30 million
Workers, informal sector	30 million
Children laborer	4 million
Urban poor	5 to 7 million

Source: National Objectives for Health Philippines 2005-2010, DOH (2005)

#### 4.2.3.2 Relevant Authorities

##### **Department of Social Welfare and Development (DSWD)**

As the lead agency in social welfare and development, the Department of Social Welfare and Development (DSWD) exercises the following functions:

- 1) Formulates policies and plans which provide direction to intermediaries and other implementers in the development and delivery of social welfare and development services;
- 2) Develops and enriches existing programs and services for specific groups, such as children and youth, women, family and communities, solo parents, older persons and Persons with Disabilities (PWDs);
- 3) Registers, licenses and accredits individuals, agencies and organizations engaged in social welfare and development services, sets standards and monitors the empowerment and compliance to these standards;
- 4) Provides technical assistance and capability building to intermediaries; and
- 5) Provides social protection of the poor, vulnerable and disadvantaged sector, DSWD also gives augmentation funds to local government units so these could deliver SWD services to depressed municipalities and barangays and provide protective services to individuals, families and communities in crisis situation.

<sup>18</sup> National Objectives for Health Philippines 2005-2010, p. 233, DOH (2005)

#### 4.2.3.3 Relevant Regulations and Policies/Plans

The MTPDP 2004-2010 also outlined some measures specifically targeting vulnerable groups, stating vulnerable members of the society be given preferential access to social assistance, social protection and safety nets. It includes the each goal, strategies and action plan for children in need of special protection, youth with special needs, women in especially difficult circumstances, persons with disabilities, older persons, indigenous peoples (IPs), dysfunctional families, and victims of disasters and calamities.

#### 4.2.4 Trend concerning Protection of Rights on Labors and Approaches to Such Problems

##### 4.2.4.1 General Features/ Problems

As shown in the Table 4.2-6, the size of the labor force was set approximately 39.2 million persons, resulting in the labor force participation rate of 63.7% in January 2011 in the Philippines. Out of them, unemployment people were 2.9 million that were 7.4% of the total labor force. Moreover, underemployment rate is 19.4%.

**Table 4.2-6 Philippine Labor Statistics: as of January 2011**

Contents	Number (in thousands)	Rate (%)
Population 15 years and over (in 2000)	61,532	
Labor Force	39,211	63.7% (of the population 15 years and over)
Employment	36,293	92.6% (of the total labor force)
Unemployment	2,919	7.4% (of the total labor force)
Underemployment	7,054	19.4% (of the total labor force)
Not in the Labor Force	22,321	36.3% (of the population 15 years and over)

Source: LABSAT, Department of Labor and Employment (March 2011)

The Philippine Labor and Employment Plan for 2011-2016 outlines some issues regarding workers' rights which need to be addressed such as:

- 1) Need to revise relevant national laws such as 1974 Labor Code that is irrelevant with present day environment and inconsistency with ratified conventions.
- 2) Need to expand the welfare and protection measures under the Labor Code to workers in the informal economy. Government statistics shows that nearly half of the country's workforce is comprised of workers in the informal economy in 2009. They include, among others, micro-entrepreneurs, unpaid family workers, vendors, landless farmers, and domestic workers, a large majority of which are beyond the scope of the Labor Code and other legislations that could ensure protection of their rights. The absence of consistent policies prevent their access to productive resources, social protection and just and humane conditions of work and makes them subject of abusive and exploitative work arrangements.
- 3) Limitations in the enjoyment of fundamental rights, particularly in respect of freedom of association and collective bargaining. Freedom of association and collective bargaining are linked to the guarantees of basic human rights and civil liberties. These rights cannot be realized if there is rampant violation of human rights and where enjoyment of these rights are

limited to specific groups of workers and excludes groups such as those in the informal sector and those in the public sector. The Philippines faces this challenge in view of reports to the ILO on various cases of detention, arrest, physical threats, assaults or disappearances of leaders and workers' and employers' organizations for activities in connection with the exercise of their right to organize. This concern reinforces the climate of violence and insecurity that further threatens and limits the exercise of trade union rights by hampering the development of genuine, free and independent workers' and employers' organizations.

- 4) Lack of protection of workers through labor standards. With the changes in work arrangements in the country, it is observed that implementation of labor standards have become challenging. This gap in promoting and protecting the rights of workers have manifested in: low wages, weak enforcement of minimum standards, weakening trade unionism and collective bargaining and limited representation of workers in policy-making. These are challenges that impinge on the Philippines' efforts in promoting and ensuring workers' rights and are central to meeting the objectives of decent work in the country.
- 5) Need to address the need for security among workers in flexible arrangements. Competition in global markets has pushed businesses to resort to outsourcing as one of the strategies to decrease labor cost and increase flexibility. This strategy, however, raises labor issues that are seen throughout Asia such as the increased insecurity of jobs, lower wages, and the weakening of the influence of workers and unions. The Philippines, as with other countries in the Asian region, faces the challenge of balancing the legitimate needs of employers for flexibility with the equally legitimate demands by workers for stability and protection.
- 6) Increasing vulnerability among migrant workers. Migration among Filipinos today is largely contract migration or migration for temporary work and is progressively on the rise and getting diverse. Whereas before, workers were involved mainly in infrastructure; in more recent times, they have moved into service occupations. Previously, migrants were mostly men; now women have become more significant in the migration flows. This trend calls for responses to ensure the protection of overseas workers from exploitative practices.
- 7) Vulnerability among domestic workers. Domestic workers include both Overseas Filipino Workers (OFWs) working abroad as domestic workers and Filipino domestic workers working within the Philippines. Their work situation that are usually private households, either overseas or locally, exposes them to vulnerabilities particularly abuse and exploitation.

#### 4.2.4.2 Relevant Authorities

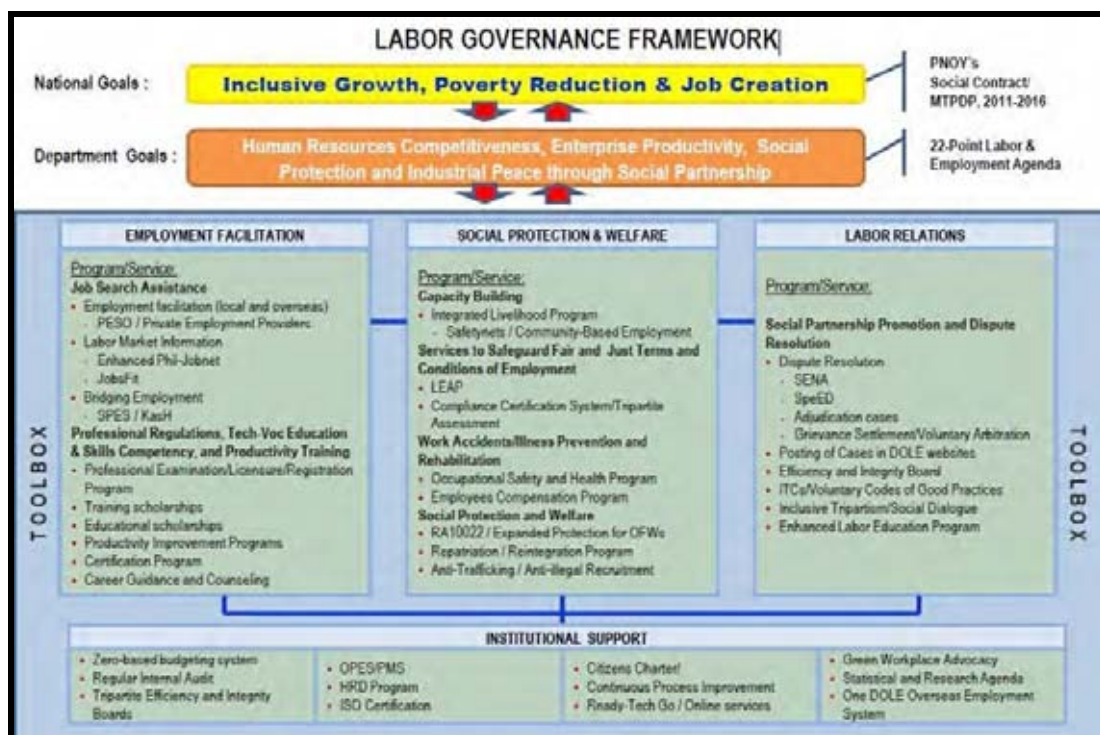
##### Department of Labor and Employment (DOLE)

The Department of Labor and Employment (DOLE) is the national government agency mandated to formulate and implement policies and programs, and serve as the policy-advisory arm of the Executive Branch in the field of labor and employment. The organization and functions of DOLE are in accordance with the provisions of Executive Order No. 126 enacted in 1987 and other relevant and pertinent legislations. The DOLE's mandate are to promote gainful employment opportunities and optimize the development and utilization of the country's manpower resources, advance the welfare of workers by providing just and humane conditions and terms of employment, and maintain industrial peace by promoting harmonious, equitable, and stable employment relations.

#### 4.2.4.3 Relevant Regulations and Policies/Plans

##### 22-Point Platform and Policy Pronouncements on Labor and Employment

To implement the country’s provisions on labor, President Benigno S. Aquino III’s administration has crafted a 22-Point Platform and Policy Pronouncements on Labor and Employment. The over-arching goal of this platform is to invest in the country’s top resource, human resource, to make the Philippines more competitive and employable while promoting industrial peace based on social justice. This covers employment, workers’ rights, social protection, social dialogue, sustaining outcomes and improving internal governance.



Source: Department of Labor and Employment.

**Figure 4.2-2 Labor Governance Framework for the 22-Point Labor and Employment Agenda**

#### 4.2.5 Current Situation concerning Ratification and Application of Other International Fundamental Human Rights

A common standard on human rights was set by the United Nations in 1948 with the adoption of the **Universal Declaration of Human Rights (UDHR)**. Because the UDHR is not legally binding, the UN translated its principles into international treaties. IN the two covenants, that is **International Covenant on Economic, Social and Cultural Rights** and **International Covenant on Civil and Political Rights** were adopted. The United Nations has since helped negotiate human rights treaties and declarations—many focused on the rights of vulnerable groups such as women, children, persons with disabilities, minorities and indigenous peoples. Currently there are nine core

international human rights treaties. Table 4.2-7 shows nine core treaties and condition of the Philippines ratification.

**Table 4.2-7 Core International Human Rights Treaties and its Philippines Position**

	<b>Core International Human Rights Instruments</b>	<b>Date of</b>	<b>Date of Ratification</b>
<b>ICERD</b>	International Convention on the Elimination of All Forms of Racial Discrimination	21-Dec-65	15-Sep-67
<b>ICCPR</b>	International Covenant on Civil and Political Rights	16-Dec-66	23-Oct-86
<b>ICESCR</b>	International Covenant on Economic, Social and Cultural Rights	16-Dec-66	07-Jun-74
<b>CEDAW</b>	Convention on the Elimination of All Forms of Discrimination against Women	18-Dec-79	05-Aug-81
<b>CAT</b>	Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment	10-Dec-84	18-Ju n-86 (Accession)
<b>CRC</b>	Convention on the Rights of the Child	20-Nov-89	26-Jul-90
<b>ICRMW</b>	International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families	18-Dec-90	05-Jul-95
<b>CPED</b>	International Convention for the Protection of All Persons from Enforced Disappearance	20-Dec-06	--
<b>CRPD</b>	Convention on the Rights of Persons with Disabilities	13-Dec-06	15-Apr-08

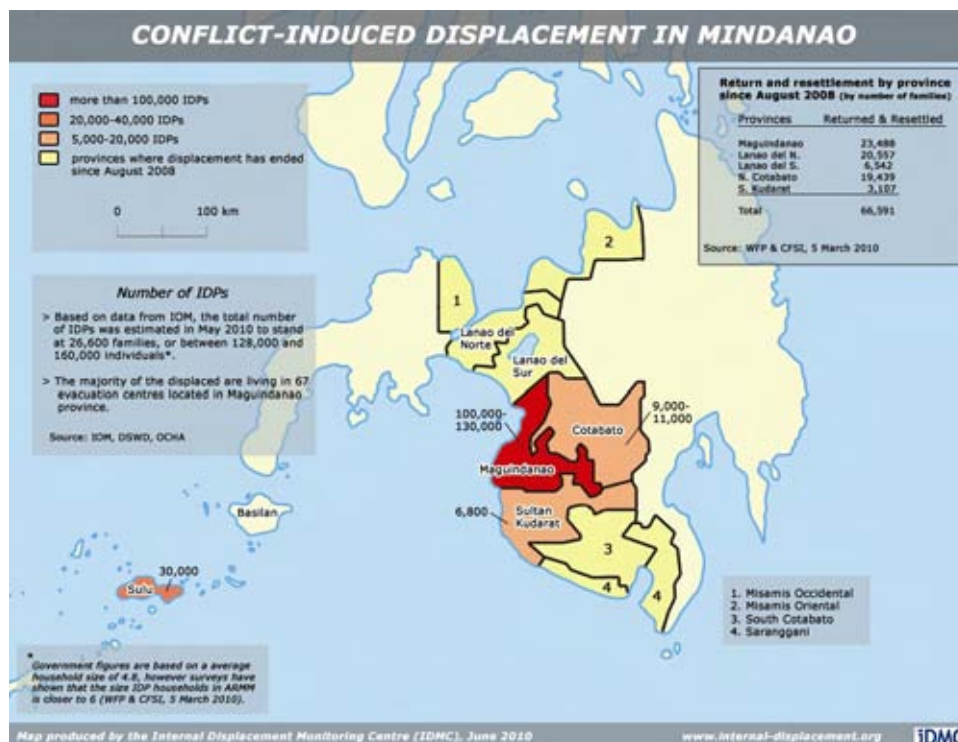
Source: Website of United Nations Treaty Collection (Accessed in May 2011)

#### 4.2.6 Conflict

In the Philippines, the civil wars between the Government and antigovernment organizations still continue especially in the Mindanao Island, where the Moro Islamic Liberation Front (MILF) was formed in 1977 and established an independent Islamic state to fight against to the Government. However despite peace negotiations and the cease-fire agreement between the MILF and the Government, the MILF has abolished and attacked government troops several times. As of January 2011, the peace talk has not been started between the MILF and the Aquino Administration.

There have been several major displacements in conflict-ridden areas in Mindanao during the past decade due to conflicts between the MILF and the Government. As shown in the Figure 4.2-4, the total number of the conflict-induced displacement peoples was estimated in May 2010 to stand at 26,600 families, or between 128,000 and 160,000 individuals<sup>19</sup>. The majority of the displaced are living in 67 evacuation centers located in Maguindanao Province.

<sup>19</sup> Internal Displacement Monitoring Center (IDMC) (June 2010)



Source: Internal Displacement Monitoring Center (IDMC) (June 2010)

**Figure 4.2-4 Conflict-Induced Displacement in Mindanao (May 2010)**

### 4.3 Cultural Heritages

#### 4.3.1 Major Cultural Heritage in the Philippines

##### 4.3.1.1 World Heritage

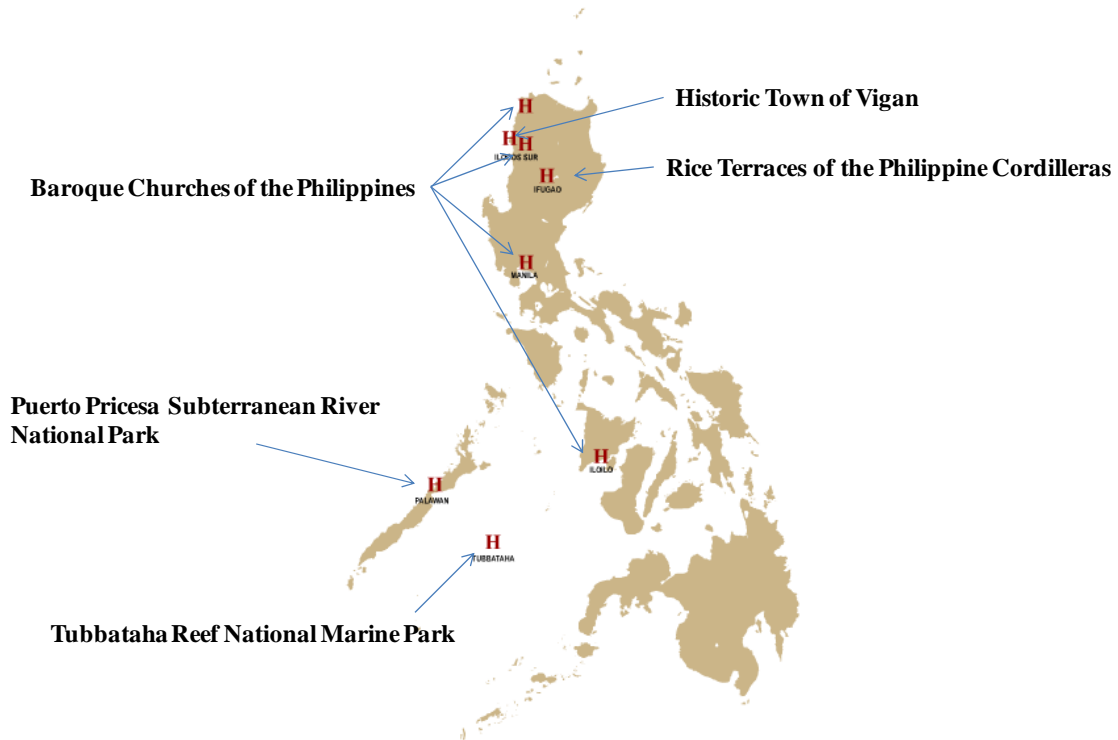
In the Philippines, there are five World Heritage Sites as shown in the Table 4.3-1 and Figure 4.3-1. A World Heritage Site is a place that is listed by the World Heritage Center which is part of UNESCO in Paris as of special cultural or physical significance. The sites are cataloged in four categories as below.

- **Cultural site:** Monuments, groups of buildings and sites that have outstanding universal significance as the common heritage of humanity.
- **Natural site:** Natural phenomena, areas and communities of plants and animals that contain exceptional natural importance.
- **Mixed site:** Sites that have both cultural and natural landmarks
- **World Heritage in Danger:** Sites that are threatened by ascertained dangers and required major operations and assistances for conservation.

**Table 4.3-1 World Heritage sites in the Philippines**

No.	Site	Properties	year
1	Rice Terraces of the Philippines Cordilleras	Cultural, In Danger	1995
2	The Historic Town of Vigan	Cultural	1999
3	Baroque Churches of the Philippines	Cultural	1993
4	Subterranean River National Park	Natural	1999
5	Tubbataha Reef Marine Park	Natural	1993

Source: UNESCO World Heritage Center



Source: Based on the Website of National Commission for Culture and Art (Accessed in May 2011)

**Figure 4.3-1 World Heritage sites in the Philippines**

#### 4.3.1.2 Other Cultural Heritage

##### (1) Endangered Heritage

World Monuments Fund (WMF), which is NGO for the protection of architectural structures and cultural sites in the world, listed four endangered heritage sites as below.

1. Rice Terraces of the Philippines Cordilleras
2. Kabayan Mummy Caves
3. San Sbastian Basilica
4. Angono Petroglyphs

In addition, the WMF has published the “Watch List” every two years and focused global attention on cultural heritage sites around the world that are threatened by neglect, demolition or conflict. In the 2010 Watch List in the Philippines, three sites are listed: Rice Terraces of the Philippine

Cordilleras, San Sebastian Basilica, as mentioned above, and Nuestra Señora de la Asunción which is also listed as the world heritage.

(2) Intangible Cultural Heritage

UNESCO has designated and preserved intangible cultural heritages as well as the world heritages which are monuments and collection of objects. The intangible cultural heritages are classified as below.

- Oral traditions
- Performing arts
- Social practices
- Rituals and festive events
- Knowledge and practices concerning nature and the universe
- The knowledge and skills to produce traditional crafts

Table 4.3-2 shows summary of intangible cultural heritages in the Philippines.

**Table 4.3-2 Summary of Intangible Cultural Heritages in the Philippines**

Year	Heritage	Classification
2001	The Ifugao epic, the Hudhud	Oral traditions and performing arts
2005	The Darangen epic of the Maranao people of lake lanao	Oral traditions and performing arts

Source: Website of UNESCO Intangible Heritage (Accessed in May 2011)

(3) Colonial Church

There are many churches constructed during the Spanish colonial period in the Philippines. The Philippines government has designated 36 churches as National Cultural Treasures and preserved them through the National Commission for Culture and Art (NCCA). Table 4.3-3 shows the list of colonial churches identified as National Cultural Treasures.

**Table 4.3-3 Colonial Churches identified as National Cultural Treasures**

Name	location	Province (Region)
(1) Basilica of San Miguel Arcángel	Tayabas	Quezon (Region IV-A)
(2) Cathedral of San José	Romblon	Romblon (Region IV-B)
(3) Inmaculada Concepción de la Virgen Maria	Baclayon	Bohol (Region VII)
(4) La Asunción de la Nuestra Señora	Santa María	Ilocos Sur (Region I)
(5) La Asunción de la Nuestra Señora	Maragondon	Cavite (Region IV-A)
(6) La Inmaculada Concepción	Balayan	Batangas (Region IV-A)
(7) La Inmaculada Concepción	Intramuros	Manila
(8) La Inmaculada Concepción	Guiuan	Eastern Samar (Region VIII)
(9) La Inmaculada Concepción	Jasaan	Misamis Oriental (Region X)
(10) Nuestra Señora de la Luz	Loon	Bohol (Region VII)
(11) Nuestra Señora de la Porteria	Daraga	Albay (Region)
(12) Nuestra Señora de los Desamparados	Sta Ana	Manila
(13) Parroquia de la Santa Cruz	Maribojoc	Bohol (Region VII)
(14) Patronio de Sta. María	Boljoon	Cebu (Region VII)
(15) San Agustín	Paoay	Ilocos Norte (Region I)
(16) San Agustín de Hippo	Bacong	Negros Oriental (Region VII)

<b>Name</b>	<b>location</b>	<b>Province (Region)</b>
(17) San Andrés	Masinloc	Zambales (Region III)
(18) San Carlos Borromeo	Mahatao	Batanes (Region II)
(19) San Gregorio Magno	Majayjay	Laguna (Region IV-A)
(20) San Guillermo Ermitaño	Magsingal	Ilocos Sur (Region I)
(21) San Ildefonso	Tanay	Rizal (Region IV-A)
(22) San Isidro Labrador	Lazi	Siquijor (Region VII)
(23) San Joaquin	San Joaquin	Iloilo (Region VI)
(24) San Juan Bautista	Tabaco	Albay (Region V)
(25) San Juan Bautista	Jimenez	Misamis Occidental (Region X)
(26) San Matías	Tumauini	Isabela (Region II)
(27) San Pedro	Loboc	Bohol (Region VII)
(28) San Pedro y San Pablo	Calasiao	Pangasinan (Region I)
(29) San Raymundo De Peñaforte	Rizal	Cagayan (Region II)
(30) San Vicente Ferrer	Dupax	Nueva Vizcaya (Region II)
(31) Santa Catalina de Alejandría	Tayum	Abra (CAR)
(32) Santa Catalina de Alejandría	Luna	La Union (Region I)
(33) Santa Monica	Panay	Capiz (Region VI)
(34) Santiago Apóstol	Betis	Pampanga (Region III)
(35) Santo Tomás de Villanueva	Miag-ao	Iloilo (Region V)
(36) St. Andrew the Apostle Church	Bacarra	Ilocos Norte (Region I)

Source: Website of NCCA (Accessed in May 2011)

#### 4.3.2 Relevant Regulations and Relevant Government Agency

##### 4.3.2.1 Relevant Regulations

###### Republic Act No.10066: National Cultural Heritage Act of 2009

The National Cultural Heritage Act of 2009 provides articles as below for protection and preservation of the cultural properties in the Philippines.

- Method of classification and registration of Cultural property
- Method of designation and management of Heritage zone
- Roll of related agencies
- Implementation of incentive program for protection of the cultural properties
- Implementation of cultural training
- Prohibited acts

###### Other Relevant Regulations

RA 4368 (1965): Providing the authority to National Historical Institute (NHI), on protection of religious architectural structures and monuments

Definition of the implementation of development at cultural heritage zone by department of tourism (DOT) and the Philippine games and amusements corporation (PAGCOR) with cooperation with implementing agencies

PD 105 (1973): Providing designation and protection of historic monuments, such as medieval churches around the country, as cultural heritage

PD 260 (1975): Designation of religious architectural structures, churches, around the country as cultural heritage. Edited by P.D. 375, 756, 1499, 150, 1109, 1682, 996, 597, 2733, 58.

PD 1505 (1978): Definition of the acquisition of precertification by NHI on repair and refurbishment works of cultural properties

#### 4.3.2.2 Relevant Agencies

##### **National Commission for Culture and Art (NCCA)**

The National Commission for Culture and Art (NCCA) created by Republic Act No.7356 in 1992, handles practical works on protection of cultural heritages in the Philippines. The Commission consists of four subcommissions as follows; the arts, cultural communities and traditional arts, dissemination, and cultural heritage. The activities of subcommissions are classified into six area as follows; culture and development, culture and education, support of artistic activities, promotion of culture and arts, protection of cultural heritages, and culture and foreign diplomacy. Subcommission on cultural heritage develops policies and plans on preservation of historic monuments around the country. NCCA oversees NHI and National Museum.

#### 4.3.3 Policies and Difficulties on Protection of Cultural Heritages

The MTPDP 2004-2010 states that “culture should be seen as central to any form of development in the pursuit of economic prosperity and national unity.” The MTPDP outlines the major challenges that the area of culture is facing in the Philippines. These are: highlighting and harnessing positive Filipino cultural resources in promoting social responsibility, good governance, and sustainable development; developing a strong system of protection and promotion of Filipino cultural heritage; democratizing and providing mechanisms for opening opportunities for all to participate in the national cultural development process; intensifying cultural action towards protecting indigenous peoples’ rights, fostering harmony in cultural diversity; providing a systematic and institutionalized cultural education programme; and implementing cultural programmes.

Currently, the both cultural and natural heritage in the Philippines are currently facing challenges that threaten their authenticity and integrity notwithstanding risks from earthquakes, soil erosion, air pollution and pressures from urbanization and inappropriate planned infrastructures. For example, the Rice Terraces continue to deteriorate due to “irregular development” that threatens to erode the heritage landscape. In order to tackle this issue, the Philippine Government focuses on protecting World Heritage Sites (WHS) and intangible cultural heritage. For example, in cooperation with national cultural agencies, LGUs, and private/non-government cultural organizations, projects to conserve declared National Cultural Treasures (NCTs) and other significant cultural properties and churches are undertaken in various parts of the country. The Philippines also institutionalized the National Living Treasures Award in 1992. Administered by the NCCA, the Award honors citizens or groups of citizens who have reached a high level of technical and artistic excellence in any unique Filipino traditional art. To further support the protection of different forms of intangible heritage, the Government has instituted a programme for the establishment of Schools of Living Traditions (SLTs) as a means of ensuring the transmission of some of the most important indigenous knowledge, skills, and traditions from the elders to the young members of the community. Seventy-four SLTs across different communities were established and have been receiving support since 2004.

#### 4.4 Analysis of Gaps between Current Relevant Regulations in the Philippines and JICA Guidelines for Environmental and Social Considerations (April, 2010) as well as Safeguard Policies in the World Bank

Appendix 4-1 shows the gaps between current relevant regulations in the Philippines and JICA Guidelines for Environmental and Social Considerations (April, 2010) as well as Safeguard Policies in the World Bank.



**Chapter 5**  
**Climate Change**

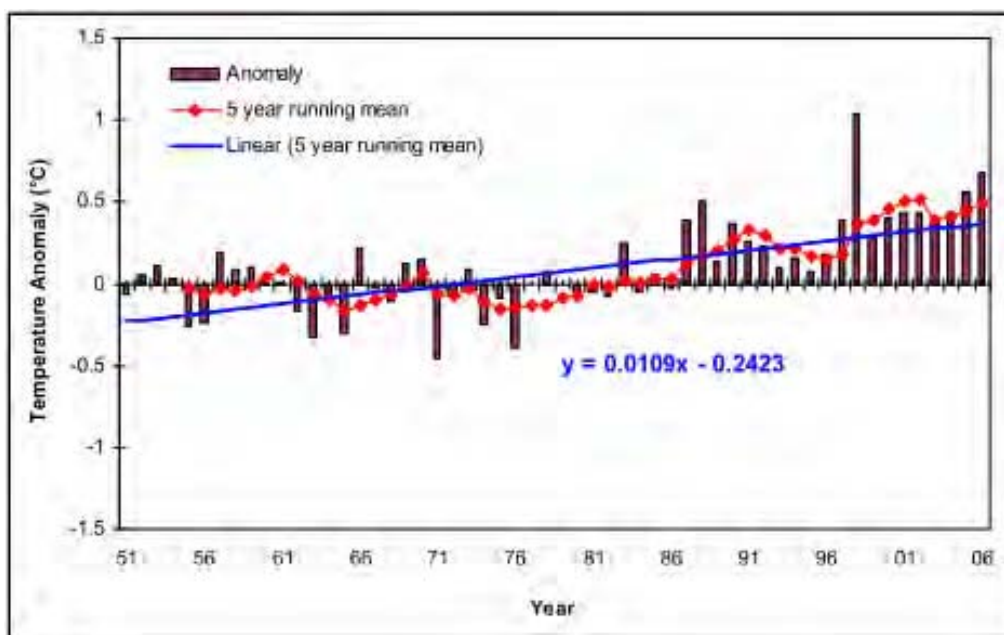


## Chapter 5. Climate Change

### 5.1 Any Effects related to Climate Change

#### 5.1.1 Climate Trend

Figure 5.1-1 shows that there is a temperature increase of 0.62°C from 1951 to 2006 in the Philippines. It is reported in the Second National Communication on Climate Change (SNCCC, DENR 2010<sup>20</sup>) that from 1960 to 2003 that significant increases in frequency of hot days and warm nights in many areas of the country have been noted while cool days and cool nights have been seen to be generally decreasing.

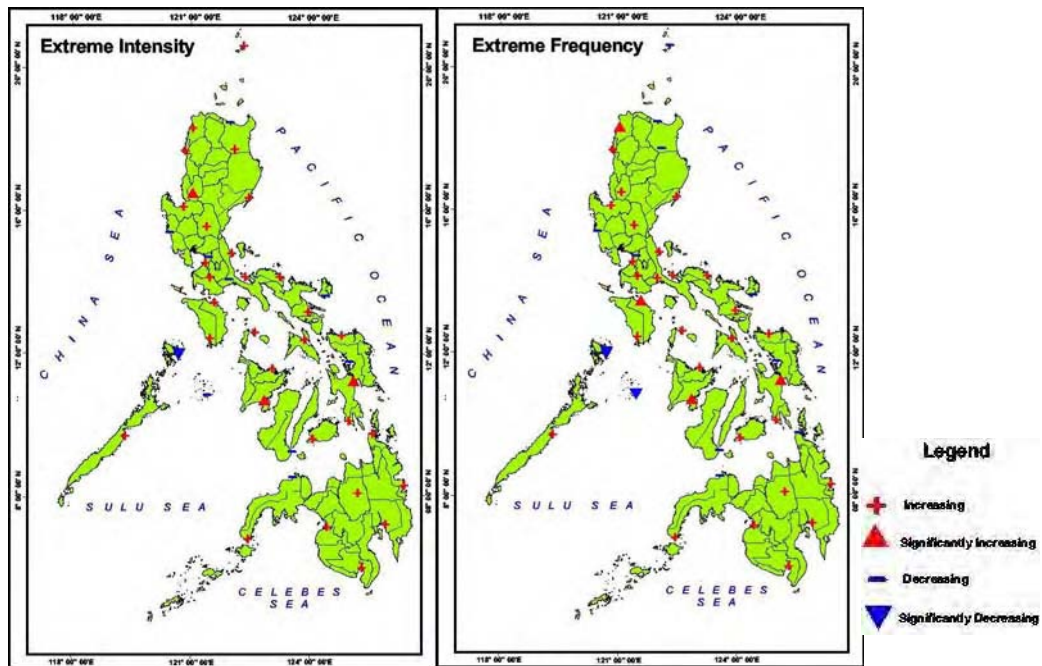


Source: SNCCC, DENR (2010)

**Figure 5.1-1 Observed Mean Annual Mean Temperature Anomalies in the Philippines  
Period: 1951-2006**

With regard to tropical cyclones (Figure 5.1-2), there is no significant trend in the number of cyclones forming in or entering the Philippine Area of Responsibility in the past 58 years (1948 – 2005). But the trend in the five year running average of tropical cyclones greater than 150 kph is on the rise and found to be more frequent during El Nino events. In most parts of the country, the intensity of rainfall is increasing from 1951 to 2009 as shown in Figure 5.1-2. Moreover, most parts of the country are generally increasing frequency of extreme daily rainfall from 1951 to 2008 (SNCCC, 2010).

<sup>20</sup> The full document of SNCCC has not published yet in April 2011, however some aspects were provided by the DENR.



Source: SNCCC, DENR (2010)

**Figure 5.1-2 Increase and Decrease of Intensity and Frequency of Rainfall from 1951 to 2009**

### 5.1.2 Sea Level Rise

Having a coastline of 36, 289 km that is the longest in the world, the coastal sector of the Philippines would also have a great impact from the climate change when sea levels are expected to rise. A 40-year observation of 5 primary tidal gauge stations (Manila, Cebu, Davao, Legazpi and Jolo) showed an increase in sea level near 15 cm as shown in Table 5.1-1. According to estimates of the National Mapping and Resource Information Authority (NAMRIA), a 1 meter sea level rise can translate to an estimated land loss of 129,114 hectares. Land loss and population displacement, increased flooding of low-lying coastal areas, impacts on coastal aquaculture and coastal tourism are among the possible effects of sea level rising.

**Table 5.1-1 Trend in Annual Mean Sea Level (in meters)**

Station	1950 to 1959 Change	1960 to 1969 Change	1970 to 1979 Change	1980 to 1989 Change
Manila	-0.7	+0.083	+0.183	+0.142
Legaspi	+0.044	-0.071	+0.074	+0.165
Davao	-0.099	-0.024	+0.069	+0.165
Cebu	-0.09	-0.085	+0.027	+0.009
Jolo	-0.08	-0.078	-0.020	+0.069
Average of the five station	-0.185	-0.035	+0.067	+0.110

Source: The Initial National Communication on Climate Change (INCCC), DENR (1999)

### 5.1.3 Contribution of Greenhouse Gas Emissions

GHG contribution in 2005 (excluding land use change and forestry) represented 0.37% of the world's total, an increase of its 1990 emissions share of 0.30%. In 2005, energy sector was responsible for 36.0% of GHG emissions (75.1MtCO<sub>2</sub>) as shown in Table 5.1-2. The Philippines' GHG emissions have been on the rise of 1.8% per years. Most significant rise within 1990-2005 in GHG emissions is the electricity & heat sector (16.8MtCO<sub>2</sub>, 119.5%), followed by transportation (11.5MtCO<sub>2</sub>, 83.1%) and industrial processes (6.5 MtCO<sub>2</sub>, 202.0%).

**Table 5.1-2 Philippines GHG Emissions by Sector, 1990-2005 (MtCO<sub>2</sub>)**

	1990	1995	2000	2005	Change 1990-2005		
					Change	Avg. Annual change	Total
Energy	43.2	62.1	72.4	75.1	31.9	3.8%	73.9%
Electricity & Heat	14.0	20.4	27.6	30.8	16.8	5.4%	119.5%
Manufacturing & Construction	8.3	11.5	10.8	10.7	2.4	1.7%	28.3%
Transportation	13.8	22.2	24.8	25.3	11.5	4.1%	83.1%
Other Fuel Combustion	6.9	7.8	9.0	7.8	0.9	0.8%	12.9%
Fugitive Emissions	0.2	0.2	0.2	0.6	0.4	8.8%	256.7%
Industrial Processes	3.2	5.4	6.7	9.7	6.5	7.6%	202.0%
Agriculture	33.5	37.8	35.9	39.1	5.6	1.0%	16.7%
Land-Use Change & Forestry	70.0	70.0	70.0	70.0	0.0	0.0%	0.0%
Waste	10.9	12.2	13.5	14.8	3.9	2.1%	35.8%
<b>Total</b>	<b>160.8</b>	<b>187.5</b>	<b>198.5</b>	<b>208.7</b>	<b>47.9</b>	<b>1.8%</b>	<b>29.8%</b>

Source: Climate Analysis Indicators Tool (CAIT) version 0.8, World Resources Institute (accessed in April 2011)

### 5.1.4 Impact of Climate Change by Sector

#### A. Socio-Economic Sector

It is reported in SNCCC (2010) that the cost of typhoon impacts is estimated 0.5% of the GDP (SNCCC, 2010), and the losses will not affect the national economic status. However the vulnerabilities of Filipinos who rely on natural resources for a living will further increase.

#### B. Health Sector

It was reported that Climate change might impact on the health sector by increasing the vector-borne infectious diseases<sup>21</sup>. In 1998, malaria and other diseases increased significantly as a consequence of El Niño<sup>22</sup>. However apparent data that show causal evidence has not been provided in the Philippines.

#### C. Forest and Watershed Sector

Change in precipitation or shift in rainfall pattern may affect distribution of vegetation types. The IPCC (1999) predicted that a decrease in soil moisture in drier areas may accelerate forest loss while

<sup>21</sup> IPCC Fourth Assessment Report (April 2007)

<sup>22</sup> Gender and Climate Change Finance - A Case Study from The Philippines, The Women's Environment and Development Organization, November 2008

increase in precipitation could increase run-off resulting in soil erosion and flooding.

The SCCC (2010) predicted the vulnerable area to be most affected to the effects of climate change in consideration of topographical condition, climate and condition as shown in the Table 5.1-3. This reveals that vulnerability of around 30% of forest and cultivated area are high.

**Table 5.1-3 Vulnerability of forest land use and cover types (in hectares)**

Land Cover	Vulnerability			Total
	Low	Moderate	High	
Natural Forests	1,779,385 (31.6%)	2,821,924 (50.1%)	1,027,920 (18.3%)	5,629,229
Cultivated Areas	1,255,942 (15.2%)	4,039,576 (48.8%)	2,977,001 (36.0%)	8,272,520
Grasslands	209,508 (20.2%)	598,810 (57.7%)	228,693 (22.1%)	1,037,011
Mangrove	1,452 (21.7%)	3,299 (49.4%)	1,931 (28.9%)	6,681
Total	3,246,288 (21.7%)	7,463,609 (49.9%)	4,235,545 (28.3%)	14,945,442

Source: SNCCC, DENR (2010)

#### D. Agricultural and Fisheries

Agriculture is the backbone of the country's food security. Not only that, it represents 18 % of gross domestic product and generates one third of the country's total employment<sup>23</sup>. The Department of Agriculture (DA) has recognized that agriculture is highly sensitive to climate variability and weather extremes. The increased incidence of pests and diseases such as the Black rice bug were noted by the Provincial Agriculture Office of Albay (2007) and massive agricultural losses were reported in major rice and corn-producing regions (e.g. Cagayan Valley) resulting from extreme draught and weather disturbances<sup>24</sup>.

#### E. Water Resources

El Nino events in the Philippines have significantly reduced water inflows into major watersheds, reservoirs and other impoundments, thus, causing considerable strain on water resources. As a result, water for households and irrigated agriculture have been severely curtailed, especially in Metro Manila. Additionally, climate, topography, and tidal variations increase the salinity of water, making it undrinkable. Salt water intrusion in the country's fresh water supplies is already evident in nearly 28 percent of coastal municipalities in Luzon (the country's main island), 20 percent in the Visayas, and almost 29 percent in Mindanao<sup>25</sup>.

On the other hand, severe flooding occurs annually, affecting mainly lowland areas and high lying areas. Landslides and flash floods have taken place on a large scale in mountainous areas.

## 5.2 Relevant Regulations and Authorities

### 5.2.1 Relevant Regulations

The Philippines is one of the countries which started to work on the climate change early on and had created in 1991 the Inter-agency Committee on Climate Change even prior to the 1992 Rio

<sup>23</sup> The Philippine Strategy on Climate Change Adaptation 2010-2022, DENR, June 2010

<sup>24</sup> A Primer on Climate Change Adaptation in the Philippines, World Agroforestry Centre, 2007

<sup>25</sup> Gender and Climate Change Finance - A Case Study from The Philippines, The Women's Environment and Development Organization, November 2008

Summit. The Government has already ratified and signed the Kyoto Protocol, established the DNA (Designated National Authority) and built governmental system as a host country of CDM. There are several projects conducted in the Philippines that was issued CERs (Certified Emission Reductions). IN addition to that, the Climate Change Act was enacted in 2009 in order to mainstream climate change into policy formulation, development planning, and poverty reduction programs. The Table 5.2-1 shows sequence of governmental laws and regulations concerning climate change.

**Table 5.2-1 Sequence of Governmental Laws and Regulations**

<b>Year</b>	<b>Government Laws and Regulations</b>
1991	Presidential Administrative Order No.220 created the Inter-Agency Committee on Climate Change (IACCC) with main task to coordinate various climate change related activities and propose national positions, namely UNFCCC.
1992	Government of the Philippines signed the UNFCCC; established the Philippine Council for Sustainable Development (PCSD), a multi-stakeholder body which charts the sustainable development direction of the country including the concern on climate change
1994	Senate of the Philippines ratified the UNFCCC
1998	Government of the Philippines signed the Kyoto Protocol
1999	RA 8749, Clean Air Act, Government of the Philippines submitted the First National Communication on Climate Change to the UNFCCC.
2000	RA 9003, Ecological Solid Waste Management Act
2003	Government of the Philippines ratified the Kyoto Protocol
2004	RA 9275 Clean Water Act
2005	Executive Order (EO) 320 designated the DENR as the National Authority for CDM
2006	DENR Special Order 2006-787 created the Inter-Agency Working Group (IAWG) and a Program Steering Committee for the Adaptation to Climate Change DENR Special Order 2006-788 defined DENR representation to the Inter-Agency Committee on Climate Change RA 9367 set the framework for the biofuels industry
2007	AO 171 created the Presidential Task Force on Climate Change (PTFCC) with DENR as Secretariat and IACCC as its technical arm. DENR Special Order 2007-653 created the Advisory Council on Climate Change Mitigation, Adaptation and Communication; served as a technical arm of the PTFCC
2008	EO 774 reorganized PTFCC and established various Task Groups on Climate Change RA 9513 set the framework on the development, utilization and commercialization of renewable energy
2009	EO 785 mandated PTFCC to develop the National Climate Change Framework; effectively coalesced the <i>old PTFCC</i> and the PAGWCC into the <i>new PTFCC</i> DENR AO 2009-04 established a Climate Change Office under the Office of the DENR Secretary RA 9729 (Climate Change Act) passed by Congress establishing the Climate Change Commission
2010	Implementing Rules and Regulations of Republic Act 9729 National Framework Strategy on Climate Change, 2010 - 2022 The Philippine Strategy for Climate Change Adaptation, 2010 – 2022

Source: based on "Climate Change and Private Sector Development –Integrated green growth strategies into the MSME Development Plan 2010-2016-, GTZ, 2010, and each regulation/rule.

## 5.2.2 National Policies/Plans

### **Philippine Energy Plan 2009-2030 (2009)**

The Department of Energy (DOE) set the Philippine Energy Plan highlighting the plans and

programs of the energy sector to fuel support for the economic growth for the period 2009-2030. The plan is based on three broad policy thrusts; ensuring energy security, pursuing effective implementation of energy sector reform, and implementing social mobilization and cross-sector monitoring mechanisms. The plans involve increasing indigenous oil and gas reserves, developing renewable energy resources and increasing the use of alternative fuels (CNG for transport).

#### **Philippine Strategy on Climate Change Adaptation (PSCCA) 2010-2022 (2010)**

The Philippine Strategy on Climate Change Adaptation (PSCCA) is a result of the collaborative process among various stakeholders implemented from March 2009 – March 2010 under the project of “Adaptation to Climate Change & Conservation of the Biodiversity in the Philippines” donated by the GTZ. The PSCCA is an input on the formulation of the National Strategic Framework that guides the country in the implementation of CC policy within the next 12 years and as far as 2050.

#### **National Framework Strategy on Climate Change 2010-2022 (NFSCC) (2010)**

The National Framework Strategy on Climate Change (NFSCC) formulated by the Climate Change Commission (CCC) includes the projected climate change scenarios from 2020 to 2050, impacts from climate change and vulnerabilities and National framework strategy on climate change. The Goal for climate change set as “To build the adaptive capacity of communities and increase the resilience of natural ecosystems to climate change, and optimize mitigation opportunities towards sustainable development”. It also defines key result areas to be pursued, providing guidance to all development actors on climate change mitigation and adaptation.

#### **Department of Agriculture Policy and Implementation Program on Climate Change (2011)**

This document states the vision, goal policy framework on climate change of the Department of Agriculture (DA) and relevant programs, with the overview of impacts of climate change in agriculture and fisheries.

### 5.2.3 Relevant Authorities

In Philippines, there are several government agencies and inter-agent organizations collaborated in order to tackle the climate change. In the collaboration framework on climate change, **the Department of Environment and Natural Resources (DENR)** designated as national authority on CDM is identified as the technical agency to lead the collaboration process supported by **National Economic Development Authority (NEDA)** as policy oversight. **The Inter-Agency Committee on Climate Change (IACCC)** created in 1991 served as the core of the sectoral technical working groups for strategy and policy formulation while **the Presidential Task Force on Climate Change (PTFCC)** created in 2007 was responsible for integrating the country’s adaptation and mitigation strategies into a national climate change framework. The Philippine Climate Change Act was filed establishing the framework program for climate change, creating **the Climate Change Commission. The Climate Change Office** of the DENR

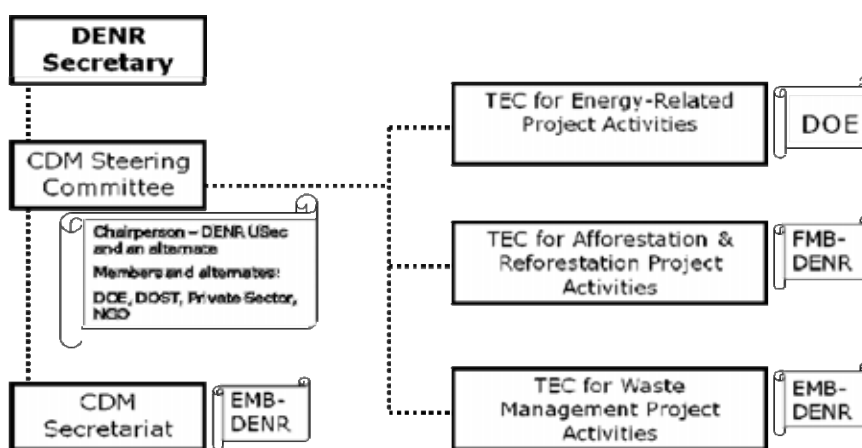
rationalizes all the activities within the Department and at the same time strengthen all coordination efforts.

**Department of Environment and Natural Resources (DENR)**

Under EO No. 192 (1987), the DENR is mandated as the primary agency responsible for conservation, management, development, and proper use of environment and natural resources. The DENR as the DNA shall have the following powers and functions as stipulated in DAO No.2005-17;

1. formulate and develop a national CDM policy
2. develop the criteria, indicators, standards, systems and procedures, and evaluation tools for the review of proposed CDM project activities prior to the issuance by the Secretary of a Letter of Approval
3. undertake the assessment of proposed CDM project activities and through the Secretary. Issue a Letter of Approval or Non-Approval
4. monitor the implementation of CDM project activities located within the Philippines
5. perform such other functions that are related to and in pursuance of the promotion of CDM project activities that contribute to sustainable development within the Philippines

As shown in the Table 5.2-1, the DNA under the Secretary of DENR is composed of the Steering committee, Secretariat and Technical Evaluation Committees (TECs). TECs includes three (3) committees, i.e., TEC for Energy-Related Project Activities, TEC for Afforestation and Reforestation Project Activities, and TEC for Waste Management Project Activities. TECs are responsible for evaluating whether a proposed CDM project activity meets the national approval criteria.



Source: DAO No.2005-17 (2005)

**Figure 5.2-1 DNA Structure**

**Inter-Agency Committee on Climate Change (IACCC)**

The Inter-Agency Committee on Climate Change (IACCC) was created in 1991 by virtue of AO

No.220. The IACCC is composed of government agencies and NGO representatives, chaired by the Secretary of the DENR, and co-chaired by the Secretary of the Department of Science and Technology (DOST). The main tasks of this committee were to coordinate various climate change related activities, propose climate change policies and prepare the Philippine positions to the UNFCCC.

#### **Presidential Task Force on Climate Change (PTFCC)**

In 2007, AO No.171 was issued to create a Presidential Task Force on Climate Change (PTFCC). The Secretary of the Department of Energy (DOE) serves as the Chair while the Secretary of the DENR serves as the Vice Chair of the PTFCC. Other members of the PTFCC include the Secretaries of the Department of Science and Technology (DOST), Department of Agriculture (DA), Department of Interior and Local Government (DILG), and the Department of Education (DepEd), the Chairman of the Commission on Higher Education (CHED) and two (2) representatives from the private sector/civil society as members. The IACCC is the technical arm of the PTFCC. Its mandate is to address and mitigate the impact of climate change in the Philippines, paying special attention to adaptation, mitigation and technological solutions. Other activities of the PTFCC include undertaking of strategic approaches and measures to prevent or reduce GHG emissions, conduct of nationwide massive and comprehensive public information and awareness campaigns and so on.

#### **Climate Change Commission**

The Climate Change Commission established under the Climate Change Act (2009) is independent and autonomous body under the office of the President of the Republic of the Philippines. The President serves as the Chairperson and appoints three commissioners, from whom the Vice Chairperson shall be selected. The Commission is mandated to formulate framework strategy on climate change, shall be advised by an Advisory Board composed of total 23 members that includes secretaries of relevant agencies, such as, DENR, DOE, DOH (Department of Health) and DOA, Representatives from the business sector and NGO.

#### **Climate Change Office**

The Climate Change Office was created under the Office of the Secretary of DENR by the DENR No.2009-14 (2009) in order to strengthen DENR's position as the lead agency for climate change and to rationalize development and implementation of programs and policies on climate change, and to coordinate mechanism internally among DENR as well as external, with other national government agencies, NGO and LUGs.

### **5.3 Approaches to the Climate Change**

#### **5.3.1 Mitigation Measures**

The Philippines set long-term objective for Mitigation as “to facilitate the transition towards low greenhouse gas emissions for sustainable development”. To achieve this long-term objective, the

following six (6) key result areas, from which the national, sectoral and local action plans shall be drawn, are adopted (NFSCC, 2010).

**Table 5.3-1 Six Key Result Areas for Mitigation (Toward 2022)**

<b>Key Result Area</b>	<b>Objectives</b>	<b>Strategies</b>
Energy Efficiency and Conservation	Develop and enhance clean energy sources, uses and other efficiency measures towards a low carbon economy in the energy sector	<ul style="list-style-type: none"> <li>a. Enhance energy efficiency and conservation, and put in place long-term reliable power supply through reinforcement of energy infrastructure, diversification of energy sources and research and development in new technologies</li> <li>b. Maintain a competitive energy investment climate</li> <li>c. Reduce GHG emissions from the energy sector through increased use of alternative fuels and other energy conservation programs.</li> </ul>
Renewal Energy	Realize the full potential of the country's renewable energy capacity so as to further contribute to energy security and promote low-carbon growth in the energy sector	<ul style="list-style-type: none"> <li>a. Intensify the development and utilization of renewable and environment-friendly alternative energy resources/ technologies. (To double its current renewable energy capacity from 4,500 MW to 9,000 MW in the next 20 years)</li> </ul>
Environmentally Sustainable Transport	Improve the efficiency of the transport sector through increased uptake of alternative fuels and expansion of mass transport systems	<ul style="list-style-type: none"> <li>a. Promote models to improve the transport sector's efficiency and modal shifts</li> <li>b. Convert of public utility vehicles to LPG and renewable energy sources, and the expansion of/shift to more efficient mass transport systems.</li> <li>c. Integrate climate change to the formulation of energy and transport policies</li> </ul>
Sustainable Infrastructure	Reduce carbon footprint through energy-efficient design and materials for public infrastructure and settlements	<ul style="list-style-type: none"> <li>a. Institutionalize guidelines for the construction of innovate climate-resilient and energy-efficient human settlements.</li> <li>b. Promote green infrastructure practices through climate-smart technologies, climate proofing processes and construction of energy-efficient buildings.</li> <li>c. Install energy-efficiency and climate-proofing mechanisms for public infrastructure, cultural facilities, and socio-economic infrastructure</li> <li>d. Develop energy-efficient and climate-resilient human settlements through government and private sector housing programs, and public awareness campaigns.</li> </ul>

<b>Key Result Area</b>	<b>Objectives</b>	<b>Strategies</b>
National REDD+ Strategy	Reduce emissions from deforestation and forest degradation through the sustainable management of forests and the protection and enhancement of carbon stocks in watersheds, forests and other terrestrial ecosystems	<ul style="list-style-type: none"> <li>a. Review, harmonize, and where necessary formulate, enabling policies towards enhancing the forestry sector's ability to reduce emissions from deforestation and forest degradation and enhance forest carbon stocks</li> <li>b. Strengthen governance mechanisms in REDD+ coordination and implementation</li> <li>c. Promote a watershed approach toward REDD+ planning, implementation, and enforcement, pursuing options to improve the protection and sustainable management of forests, and the enhancement of forest carbon stocks and biodiversity.</li> <li>d. Collaboratively establish a broad science-based REDD+ research and development agenda with, among others,.</li> <li>e. Establish and implement a national-level sustainable REDD+ measurement, reporting and verification system</li> <li>f. Formulate and implement a national REDD+ communication plan and capacity building program</li> <li>g. Explore and capitalize on opportunities for financing REDD+, establishing long-term financial sustainability and resilience</li> </ul>
Waste Management	Full implementation of proper waste management	<ul style="list-style-type: none"> <li>a. Enhanced implementation of the Ecological Solid Waste Management Act</li> <li>b. Promotion of best practices in waste management, involving all categories of waste</li> <li>c. Strengthen the advocacy of proper waste management as a tool towards better communicating and mobilizing the public to address climate change.</li> </ul>

REDD+: Reducing Emissions from Deforestation and Forest Degradation, Source: NFSCC (2010)

### 5.3.2 Adaptation Measures

The Philippines set long-term objective for Adaptation as “to build the adaptive capacity of communities and increasing the resilience of natural ecosystems to climate change”. To achieve this long-term objective, the following seven (7) key result areas, from which the national, sectoral and local action plans shall be drawn, are adopted (NFSCC, 2010).

**Table 5.3-2 Seven Key Result Areas for Mitigation (Toward 2022)**

<b>Key Result Area</b>	<b>Objectives</b>	<b>Strategies</b>
Enhanced Vulnerability and Adaptation Assessments	Enhance the availability and quality of vulnerability and adaptation assessments to serve as the country's scientific basis for formulating appropriate climate change adaptation strategies.	<ul style="list-style-type: none"> <li>- Ensure the formulation of effective and efficient vulnerability, impact and adaptation assessment tools.</li> <li>- Improve mechanisms for addressing gaps and limitations of existing assessment and vulnerability approaches, in relation to the needs and objectives of climate change plans.</li> <li>- Increase access to climate change adaptation knowledge products and support services.</li> </ul>

<b>Key Result Area</b>	<b>Objectives</b>	<b>Strategies</b>
Integrated Ecosystem-based Management	<ul style="list-style-type: none"> <li>- Manage watershed ecosystems and multi-polar environments through the River Basin Management approach.</li> <li>- Build up and improve the resilience of coastal and marine ecosystems and communities</li> <li>- Mainstream biodiversity adaptation strategies to climate change in policies, plans and programs of national and local government agencies.</li> </ul>	<ul style="list-style-type: none"> <li>- Enhance vulnerability and adaptation assessments.</li> <li>- Enhance ecosystem services to control droughts, floods and landslides.</li> <li>- Institute a comprehensive river basin management governance strategy.</li> <li>- Establish appropriate and participatory institutional arrangements with local government units, private sector, and civil society organizations.</li> <li>- Reduce climate change risks and vulnerability of ecosystems and biodiversity through ecosystem-based management approaches, conservation efforts, and sustainable ENR-based economic endeavors such as ecotourism.</li> <li>- Manage and expand the sink potential of marine ecosystems such as coral reefs and mangroves. (Mitigation)</li> <li>- Establish national baselines, standards and indicators for monitoring progress in measuring the impacts and implementing biodiversity conservation programs.</li> <li>- Protect vulnerable ecosystems and highly threatened species from climate change impacts;</li> <li>- Mobilize sustainable funding support to climate change adaptation programs</li> </ul>
Water Governance and Management	<ul style="list-style-type: none"> <li>Reduce water sector vulnerability to climate change through participative water governance, resource management and sectoral policy reform.</li> </ul>	<ul style="list-style-type: none"> <li>- Reduce climate change vulnerability of water resources through improved water governance and resource management mechanisms.</li> <li>- Mainstream climate change adaptation in water resources policies and development planning</li> <li>- Study, design, and implement innovative financing and incentive systems and encourage community participation in water resource management</li> <li>- Climate-proof water-related infrastructures such as dams and impoundments for domestic water supply, irrigation, and energy generation.</li> <li>- Test and adopt “low-cost, no regrets” water sector climate change adaptation technologies</li> <li>- Enhance institutional and community capacity for Integrated Water Resources Management (IWRM)</li> </ul>
Climate-Responsive Agriculture	<ul style="list-style-type: none"> <li>Protect and enhance ecosystems and ecosystem services to secure food and water resources and livelihood opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>- Reduce climate change risks and vulnerability of natural ecosystems through ecosystem-based management approaches, conservation efforts, and sustainable ENR-based economic endeavors such as ecotourism.</li> <li>- Increase the resilience of agriculture communities through the development of climate change-sensitive technologies, establishment of climate-proof agricultural infrastructure and climate-responsive food production systems</li> <li>- Improve climate change resilience of fisheries through the restoration of fishing grounds and habitats and investment in sustainable and climate change-responsive fishing technologies and products.</li> <li>- Strengthen the crop insurance system</li> <li>- Strengthen sustainable, multi-sectoral and community-based resource management mechanisms.</li> </ul>

<b>Key Result Area</b>	<b>Objectives</b>	<b>Strategies</b>
Climate-Responsive Health Sector	Manage health risks brought about by climate change.	<ul style="list-style-type: none"> <li>- Assessment of the vulnerability of the health sector to climate change.</li> <li>- Increase in responsiveness of public health systems and service delivery mechanisms to climate change.</li> <li>- Establishment of mechanisms to identify, monitor and control diseases brought about by climate change (especially climate-sensitive water-borne and vector diseases).</li> </ul>
Climate-Proofing Infrastructure	Render the infrastructure sector resilient to the escalating impacts of climate change	<ul style="list-style-type: none"> <li>- Establish baseline data and benchmarks for climate change as basis for adaptation actions in the infrastructure sector</li> <li>- Collaborate and integrate climate change adaptation plans for infrastructure in policy and planning with other stakeholders.</li> </ul>
Disaster Risk Reduction	Reduce disaster risks from climate change-induced natural hazards	<ul style="list-style-type: none"> <li>- Adoption of a responsive policy framework to serve as an enabling environment for reducing losses from natural disasters, including climate change-related risks.</li> <li>- Use of the best available and practicable tools and technologies in preventing, reducing and managing disaster risks.</li> <li>- Enhancement of institutional and technical capacity to facilitate to disaster preparedness and mitigation.</li> <li>- Enhancement of national monitoring, forecasting and hazard warning systems.</li> <li>- Mainstreaming of climate and disaster risk-based planning in national and local development and land use planning thru the application of disaster risk assessment and by further supporting capacity development.</li> </ul>

Source: NFSCC (2010)

### 5.3.3 The Clean Development Mechanism (CDM)

The DAO No.2005-17 (2005) prescribes the national approval criteria for CDM as shown in Table 5.3-3, where participants must be in a legal capacity to participate and where CDM projects must contribute to the Philippines' sustainable development

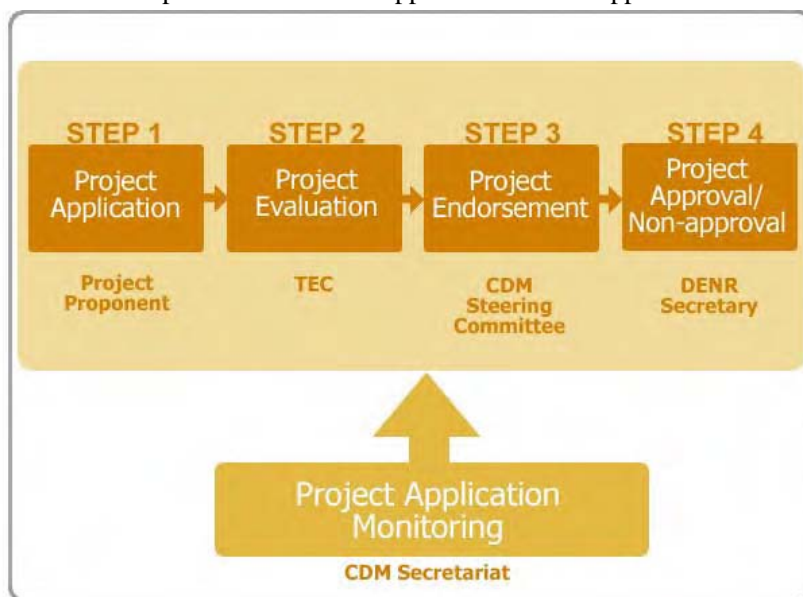
**Table 5.3-3 Evaluation Criteria of Three Dimension for CDM Project**

<b>Dimension</b>	<b>Evaluation Criteria</b>
Economic Dimension	<ul style="list-style-type: none"> <li>- Provision of livelihood and other economic opportunities in the community</li> <li>- Provision of proper safety nets and compensatory measures for affected stakeholders</li> <li>- Promotion of the use of cleaner, more efficient and environment-friendly technology in the sector</li> <li>- Provision of new financial resources</li> </ul>
Environmental Dimension	<ul style="list-style-type: none"> <li>- Compliance with environmental policies and standards</li> <li>- Improvement of local environmental quality</li> <li>- Promotion of sustainable use of natural resources</li> </ul>
Social Dimension	<ul style="list-style-type: none"> <li>- Provision of education and training which build the capacities of local stakeholders</li> <li>- Provision of vulnerable groups access to local resources and services</li> <li>- Promotion of a local participation in the project</li> </ul>

Source: Section 9 of DAO No.2005-17 (2005)

### 5.3.3.1 CDM National Approval Process

The Figure 5.3-1 shows the procedure of CDM approval in the Philippines.



Source: EMB website (accessed in April 2011)

**Figure 5.3-1 CDM Approval Procedure in the Philippines**

#### (1) Preparation of the documents for project application

The proponent of a proposed CDM project activity shall duly accomplish and submit a Project Application Document (PAD) or a Project Design Document (PDD) to the CDM Secretariat. The minimum contents of the PAD shall follow the outline contained in Annex II of DAO No.2005-17 as shown below. PDD should be supplemented by the SDBD and PLC.

- I. General Description of the Project Activity
- II. Identification of Additionality Test
- III. Identification of Baseline and Monitoring Methodology
- IV. Identification of Baseline
- V. Duration of Project Activity/Crediting Period
- VI. Calculation of GHG Emission Reductions
- VII. Contact Information of Project Proponent(s)
- VIII. Documentation of Stakeholders' Consultation (Proof of Written Announcement/ Invitation, List of Participants, Minutes of Proceedings, Summary of Issues and Concerns Raised, Proposed Measures to Address Issue and Concerns)
- IX. Sustainable Development Benefits Description (SDBD)
- X. Proof of Legal Capacity (PLC)

#### (2) Submission of Application Document

The proponent shall submit the necessary documents to the DCM Secretariat and pay a filing fee of six hundred (600) pesos and application fee of ten thousand (10,000) pesos (five thousand (5,000) pesos for Small-Scale CDM Project Activities). The CDM Secretariat shall then verify and confirm the completeness of the documents submitted. Application with incomplete documents shall be returned to the proponent. If the documents are complete the CDM shall transmit the application

documents to the appropriate TEC.

(3) TEC Project Evaluation

The TEC shall assess the documents using the National Evaluation Protocol. If no revisions to the documents are required by the TEC, it shall submit its Evaluation Report to the CDM Secretariat within five (5) working days for Small-Scale Project Activities and nine (9) working days for others. The CDM Secretariat shall then transmit the Report and accompanying documents to the CDM Steering Committee. In case the TEC requests revisions on any of the documents submitted by the proponent, the TEC shall make its request for revision in writing.

(4) CDM Steering Committee Endorsement

The CDM Steering Committee shall assess the Evaluation Report and submit its Endorsement Report to the DENR Secretary through the CDM Secretariat within five (5) working days. Should the CDM Steering Committee decide not to adopt the recommendation of the TEC, it shall state its grounds for doing so in writing.

(5) DENR Secretary’s Approval/Non-Approval

The DENR Secretary shall immediately act on and review the CDM Steering Committee’s Endorsement Report and decide to either approve or disapprove the application. The Letter of Approval/Non-Approval shall be issued to the proponent through the CDM Secretariat. If the proponent receives the Letter of Non-Approval, a Motion for Reconsideration may be filed with the Office of the Secretary within fifteen (15) days from receipt of the Letter of Non-Approval.

5.3.3.2 CDM Projects

Table 5.3-4 shows summary of CDM Projects in the Philippines (Detailed projects are shown in the Appendix 5). Most projects are related to renewable energy such as biogas, biomass, wind and hydro.

**Table 5.3-4 Basic Data on CDM Projects in the Philippines (As of March 31, 2011)**

Type of Project	No. of Projects	Ave. Annual ERs (tCO2/y)	Total ERs by 2012 (tCO2)	No. of Issuance	Total Issued CERs (tCO2)
Biogas (Animal Waste)	34	9,702	1,094,526	1	5,637
Biogas (Waste water treatment)	2	62,266	657,731		
Biomass Utilization	5	46,233	844,143		
Cement	1	218,458	972,167		
Geothermal Power	1	74,916	368,713		
Hydro Power	2	63,531	378,687		
Methane Avoidance	1	8,322	24,467		
Methane recovery & utilization (Landfill)	3	287,877	2,952,812	2	78,818
NO2 Decomposition	1	39,177	111,272		
Waste gas/heat utilization	2	36,727	329,317	1	15,637
Wind power	1	56,751	435,634	2	64,568
Total	53	40,516	8,169,468	6	164,660

ER: Emission Reduction, CER: Certified Emission Reductions

Source: IGES CDM Project Database (As of March 31, 2011) ([http://www.iges.or.jp/en/cdm/report\\_cdm.html](http://www.iges.or.jp/en/cdm/report_cdm.html))

### 5.3.4 Other Projects by Donors

Various programs and projects have also been undertaken in cooperation with concerned international development agencies as shown in the Table 5.3-5 and Figure 5.3- 2.

Most of these initiatives are grant-funded assistance focused mainly on capacity building. Most donor-funded projects have been on climate change mitigation, largely in the energy sector. These also include environment programs with climate change mitigation components either through community-based forest management (CBFM) or air pollution abatement programs. It is only recently that climate change adaptation interventions have been initiated. The focus of these interventions is the agriculture sector.

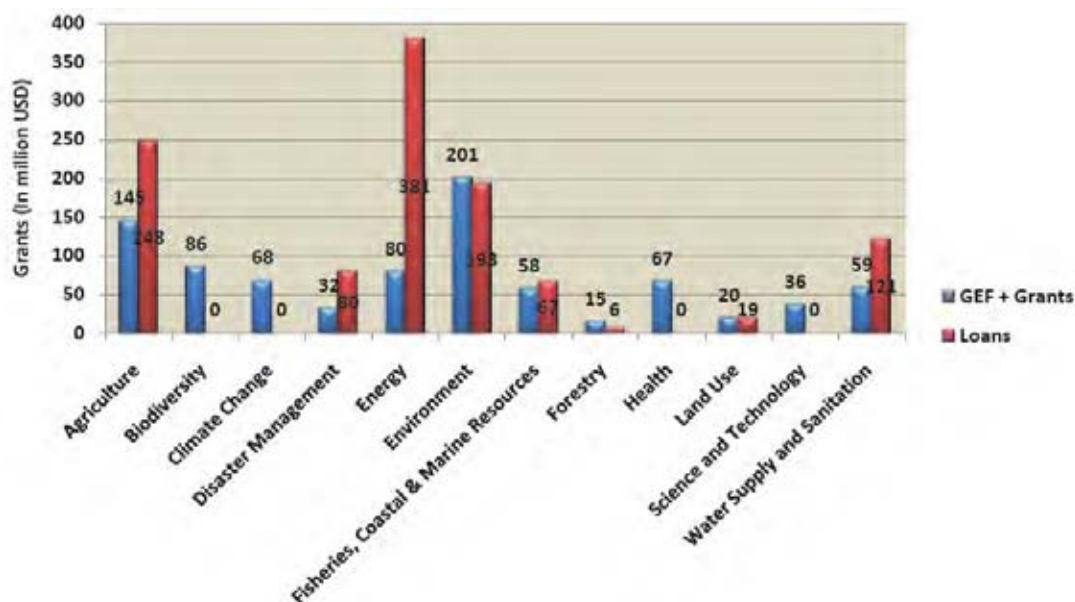
**Table 5.3-5 Recent Major Climate Change-Related Projects in the Philippines Funded by Multilateral Donors.**

<b>Name of Project and proponent</b>	<b>Status</b>	<b>Major Outcome</b>
Capacity Development for CDM (CD4CDM) (DENR)	2003-2005 Funded by UNEP	- Establishment of GHG emission reduction projects - Development of national capabilities to formulate and implement projects under the CDM
Palawan Alternative Rural Energy and Livelihood Support Project (The Center for Renewable Resources and Energy Efficiency)	1999 Funded by GEF through UNDP	- Revision of Provincial Energy Master Plan - Increase of public awareness of renewable energy systems - Set up of a commercial and sustainable Rural Energy Service Company (RESCO) delivery mechanism to provide renewable energy services in Palawan - Establishment of a risk-sharing mechanism to buy down the risks for the RESCO
Solar Homes Systems Distribution Project (PNOC-EDC)	2002-2007 Funded by the Netherlands Government	- Installment of 15,100 solar homes system units in 7 regions
Sustainable Energy Development Program (DOE)	1999-2008 Funded by the USAID	- Strengthening and support of the Philippine Department of Energy and the Energy Regulatory Commission as they implement the landmark 2001 Electric Power Industry Reform Act
Energy and Clean Air Project (DOE)	2004-2008 Funded by the USAID	- Improvement of policy frameworks related to energy and clean air (Provision of training program) - Electrification of rural communities in Western and Central Mindanao using clean renewable energy systems - Increase of awareness on clean energy and transport, etc
Philippine Climate Change Adaptation Program Phase 1 (DENR)	2010- Funded by the GEF through World Bank	- Improve coordination of adaptation policy through clarity in the institutional structure - Cost-effective climate risk reduction in key productive sectors - Strengthening proactive disaster management - Enhanced provision of scientific information for climate risk management
PH - Chiller Energy Efficiency Project (Government of the Philippines)	2010- Funded by the GEF through World Bank	- Replacement of inefficient chillers to non-CFC energy efficient ones - Establishment of the system for measuring and monitoring data related to the power-output function - Enhancement of the relevant knowledge and capacity building

Name of Project and proponent	Status	Major Outcome
Methane Recovery from Waste Management Project (Land Bank of the Philippines)	2010-Funded by the World Bank	- Adoption of wastewater system to collect and combust the methane - Installment of the facilities that collect and use landfill gas
Enabling Activity for the Preparation of the Second National Communication to the UNFCCC (DENR)	2009-Funded by the GEF	- Evaluation of national circumstances - Updating of the inventory of GHGs for the year 2000 - Assessment of needs, barrier, and opportunities for mitigation and adaptation technologies and methodologies and capacity building to utilize these. - Assessment of potential impacts change in selected areas and prioritization of adaptation measures - Preparation and submission of the Second National Communication
Strengthening the Philippines' Institutional Capacity to Adapt to Climate Change (NEDA and DENR)	2008-Funded by MDGF	- Climate risk reduction mainstreamed into key national and selected local plans and processes - Enhance national and local capacities to develop, manage, and administer projects addressing climate change risk - Improved coping mechanisms improved through pilot adaptation.

PNO-EDC: PNO Energy Development Corporation, DOTC: Department of Transportation and Communications, DPWH: Department of Public Works and Highways, MMDA: Metropolitan Manila Development Authority, DOH: Department of Health, MDGF: Millennium Development Goals Achievement Fund

Source: "Gender and Climate Change Finance: A case study in the Philippines," by the Women's Environment and Development Organization (WEDO), 2008, "Climate Change in the Philippines: A Contribution to the Country Environmental Analysis (Felizard.V), 2008, Website of EMB-DENR, WB and ADB (accessed in March 2011)



Source: Philippine Strategy on Climate Change Adaptation 2010-2022, DENR (June 2010)

**Figure 5.3-2 Distribution of On-Going and Proposed Climate Change-Related Projects in the Philippines from Foreign Funding Sources (2009-2018)**

## **Chapter 6**

# **Environmental and Social Considerations Profile on Philippines**



## Chapter 6. Environmental and Social Considerations Profile on Philippines

### 6.1 Relevant Regulations

The Table 6.1-1 shows current major relevant regulations of Philippine Environmental Impact Statement System (PEISS).

**Table 6.1-1 Major Relevant Regulations of PEISS**

<b>Regulation</b>	<b>Contents</b>
Presidential Decree (PD) No. 1152 (1977)	It enunciated the Philippine's environmental policy and introduced the concept of environmental impact statement.
Presidential Decree (PD) No.1586 (1978)	It established the PEISS and specified that only projects and areas which are environmentally critical will automatically fall within its purview.
Presidential Proclamation (PP) No.2146 (1981) Presidential Proclamation (PP) No.803 (1996)	It proclaims Environmentally Critical Projects (ECPs) to have significant impacts on the quality of the environment and Environmentally Critical Areas (ECAs) as environmentally fragile areas within the scope of the EIS System.
DAO No.30 series of 2003 (2003) Revised Procedural Manual for DAO No.30 series of 2003 (2008)	It provides implementing rules and regulations of Presidential Decree No. 1586, establishing the Philippine Environmental Impact Statement System (PEISS). Also, detailed information in definitions of technical terms, procedures, related laws and regulations are described.

Source: EMB website (accessed in April 2011)

### 6.2 Procedure of Strategic Environmental Assessment (SEA)<sup>26</sup>

Strategic Environmental Assessment has not been regulated as a law under the PEISS. It was stipulated that the EMB shall study the potential application of EIA to policy-based undertakings as a further step toward integrating and streamlining the EIS system under the DAO No.30 series of 2003. However there are no rules under the Revised Procedural Manual for DAO No.30 series of 2003 enacted in 2008.

Some elements of SEA processes are present in various environmental laws such as the Local Government Code of 1991, which calls for comprehensive land use planning at the municipal and provincial levels; the Clean Water Act of 2004, which also requires the conduct of Programmatic EIA for area-based development projects; Also, the Solid Waste Management Act of 2001, National Integrated Protected Areas System of 1992, and Indigenous People's Rights Act of 1997 mandate the enforcement and adoption of area-wide, sector and regional environmental assessments to different levels of executing agencies. However, all of these para-SEAs are still dependent on the capacity of the mandated agencies to fully apply the process in their decision-making processes. At the moment, the application of these SEA elements is yet to be fully and adequately applied.

The first example of a planning process with SEA elements in the Philippines was the formulation of the Palawan Sustainable Development Act of 1992 which used an assessment process to define and

<sup>26</sup> Most information are referred from "Strategic Environmental Assessment in East and Southeast Asia –A progress Review and Comparison of Country Systems and Cases-, World Bank, 2009".

delimit the extent of development activities, plans, projects and initiatives within the province. Examples of other assessment-based planning can be found in various types of protected area management plans under the Act on National Integrated Protected Area Management Systems and master planning for Cebu and Metro Manila.

### 6.3 Implementation of EIA and Procedure of Environmental Permissions

#### 6.3.1 Projects Requested to Implement PEISS

The EIA Process covers projects which have been originally declared as Environmentally Critical Projects (ECPs) or projects in Environmentally Critical Areas (ECAs) presumed to have significant impacts on the quality of the environment. The four (4) ECP project types and twelve (12) ECA categories have been declared through Proclamation No. 2146 (1981) and Proclamation No. 803 (1996), as summarized Table 6.3-1 and Table 6.3-2, respectively.

**Table 6.3-1 Summary List of Environmentally Critical Project (ECP) Types**

Main Categories	Examples
A. Golf Course Project	- Golf course projects/complex
B. Heavy Industries	- Iron and Steel Metals - Non-ferrous Metal Industries - Petroleum and Petrochemical Industries - Smelting Plants
C. Resource Extractive Industries	- Fishery Projects-dikes for/and fishpond development projects - Forestry Projects - Major mining and quarrying projects
D. Infrastructure Projects	- Major Dams - Major Reclamation Projects - Major Power Plants (Proc No. 2146 declared types: fossil-fueled, nuclear fueled, hydroelectric or geothermal) - Major Roads and Bridges

Source: Revised Procedural Manual for DENR Administrative Order No. 30 Series of 2003 (2008)

**Table 6.3-2 Summary of Environmentally Critical Area (ECA) Categories**

ECA Categories	Examples
A. Areas declared by law as national parks, watershed reserves, wildlife preserves, and sanctuaries	- Areas of the National Integrated Protected Areas System (NIPAS) -
B. Areas set aside as aesthetic, potential tourist spots	- Areas declared and reserved by the Department of Tourism or other authorities for tourism development
C. Areas which constitute the habitat for any endangered or threatened species of indigenous Philippine wildlife (flora and fauna)	- Areas inhabited by indeterminate species, threatened species, rare species, endangered species, such species categorized as Appendix I or II of CITES as well as listed in the The National List of Threatened Fauna
D. Areas of unique historic, archeological, geological, or scientific interests	- National historical landmarks, geological monuments, paleontological and anthropological reservations as designated or determined by the National Historical Institute, National Museum, National Commission for Culture and the Arts, National Commission on Geological Sciences, and other authorities

<b>ECA Categories</b>	<b>Examples</b>
E. Areas which are traditionally occupied by cultural communities or tribes	- Areas that are occupied or claimed as Certificated Ancestral Domains/Lands by indigenous communities
F. Areas frequently visited and or hard-hit by natural calamities (geologic hazards, floods, typhoons, volcanic activity, etc.	- Areas frequently visited or hard-hit by typhoons - Areas frequently visited or hard-hit by tsunamis - Areas frequently visited or hard hit by earthquakes - Storm surge-prone areas - Flood-prone areas - Areas prone to volcanic activities - Areas located along fault lines or within fault zones - Drought-prone areas
G. Areas with critical slope	- Lands with slope of 50% or more - Alienable and disposable forest lands and unclassified forests
H. Areas classified as prime agricultural lands	- Irrigated and irrigable areas and other areas mapped under the Network of Protected Areas for Agriculture (NPAA) of the Bureau of Soils and Water Management (BSWM)
I. Recharged areas of aquifers	- Areas of sources of water replenishment
J. Water bodies	- Areas that are tapped for domestic purposes - Areas which support wildlife and fishery activities
K. Mangrove Areas	- Tidal areas covered by salt-tolerant, intertidal tree species - Areas declared as mangrove swamp forest reserves
L. Coral Reefs	- Areas characterized by the assemblage of different types of marine plants and organisms - Areas identified by local sources such as PAWB-DENR to be rich in corals.

Source: Revised Procedural Manual for DENR Administrative Order No. 30 Series of 2003 (2008)

The projects has been classified into five (5) major groups as shown in Appendix 6-1 and summarized below.

**Table 6.3-3 Project Groups for EIA under PEISS**

<b>Groups</b>	<b>Type and location of the project</b>
Group I	ECPs in either ECAs or NECAs (Environmentally Critical Projects in either Environmentally Critical Areas or Non-Environmentally Critical Areas)
Group II	NECPs in ECAs (Non-Environmentally Critical Projects in Environmentally Critical Areas)
Group III	NECPs in NECAs (Non-Environmentally Critical Projects in Non-Environmentally Critical Areas)
Group IV	Co-located Projects in either ECA or NECA
Group V	Unclassified Projects

Source: Revised Procedural Manual for DENR Administrative Order No. 30 Series of 2003 (2008)

### 6.3.2 EIA Report Types

EIA-covered projects listed above require either of follows depending on the project type, location, magnitude of potential impacts and project threshold as shown in the Table 6.3-4.

Under the PEISS, either of seven reports are required depending on the project type, location, magnitude of potential impacts and project threshold.

- 1) Environmental Impact Statement (EIS),
- 2) Programmatic EIS (PEIS),

- 3) Initial Environmental Examination Report (IEER),
- 4) IEE Checklist (IEEC),
- 5) Environmental Performance Report and Management Plan (EPRMP),
- 6) Programmatic Environmental Performance Report and Management Plan (PEPRMP), or
- 7) Project Description Report (PDR)

All documents should be prepared by the Project Proponent to be submitted together with the following information to the EMB Central Office or the EMB Regional Office. These information also can be included or attached to the respective EIA report.

- Proof compatibility with the existing land use plan, if necessary,
- Proof of ownership or authority over the project site,
- Accountability Statements of the Proponent and the EIS preparers,
- Photographs or plates of the project site, impact areas an affected areas and communities,
- Duly Accomplished Project Environmental Monitoring and Audit Prioritization Scheme (PEMAPS) Questionnaire,
- Copy of Previous ECC (if any), and
- Latest Self Monitoring Report (SMR) (if with previous ECC, Compliance Monitoring Report (CMR)Format )

Then, the Proponent should receive either an Environmental Compliance Certificate (ECC) or Certificate of Non-Coverage (CNC) by the deciding authority.

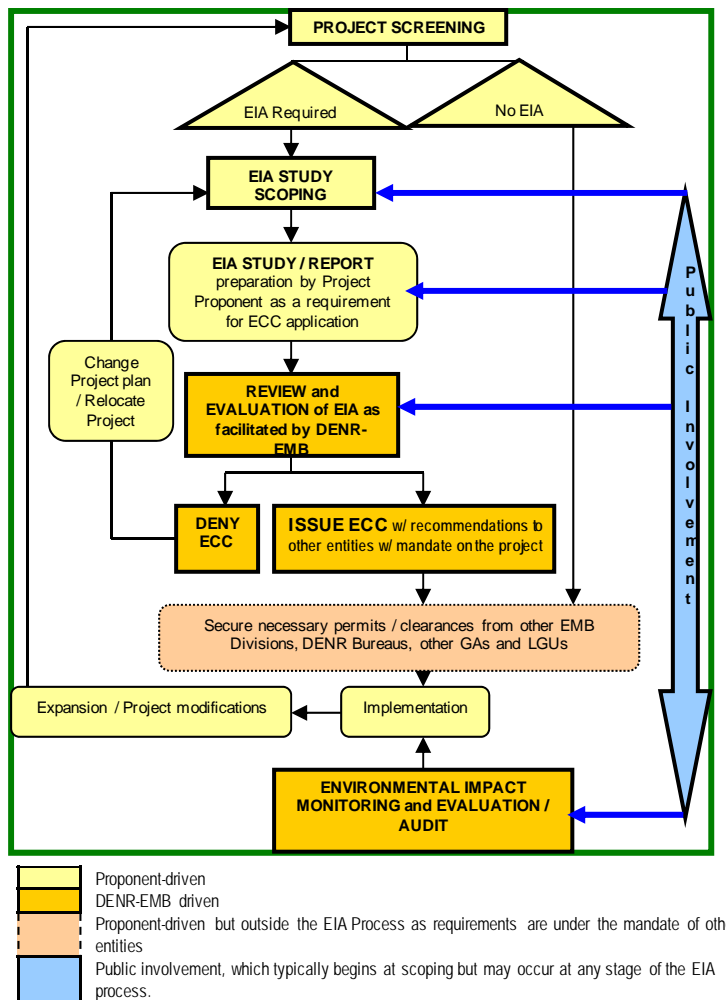
**Table 6.3-4 Summary of Project Groups, EIA Report Types, Decision Documents, Deciding Authorities and Processing Duration**

Project Groups		Documents Required For ECC/CNC Application	Decision Document	Deciding Authority (MC2010-14)	Processing Duration <sup>1</sup> (Working Days) (MC2010-14)
I: ECPs (single projects) in either ECA or NECA	I-A: New	EIS	ECC	EMB Director / DENR Secretary	40 days
	I-B: Existing Projects for Modification ,Re-start up or Operating without ECC	EPRMP			
II: NECPs (single projects) in ECA	II-A: New	EIS	ECC	EMB RO (Regional Office) Director	20 days
		IEER / IEEC	ECC		
		PDR	CNC	EMB RO Director	1 day
	II-B: Existing Projects for Modification, Re-start up or Operating without ECC	EPRMP	ECC	EMB RO Director	20 days
		PDR	CNC	EMB RO Director	1 day
III: NECPs (single projects) in NECA	III-A: New	PDR	CNC	EMB RO Director	1 day
IV: Co-located Projects	IV-A: New	PEIS	ECC	DENR Secretary/EMB Director	40 days
	IV-B: Existing Projects for Modification, Re-start up or Operating without ECC	PEPRMP	ECC/ECC Amendment	EMB RO Director	20 days
V: Unclassified Projects		PDR	CNC	EMB RO Director	1 day

Source: Prepared by the Study Team based on Revised Procedural Manual for DENR Administrative Order No. 30 Series of 2003 (2008), Memorandum Circular No.2010-14 (2010), and (1) Processing Duration is from” The Study on Integrated Water Resources Management for Poverty Alleviation and Economic Development in the Pampanga River Basin, JICA (2009)

### 6.3.3 Procedure of EIA

The Figure 6.3-1 shows the procedures of EIA.



Source: Revised Procedural Manual for DENR Administrative Order No. 30 Series of 2003 (2008)

**Figure 6.3-1 Summary Flowchart of EIA Process**

At first, the Proponent shall screen the project by using the EIA Coverage and Requirements Screening Checklist (ECRSC) (Appendix 6-2) under the Revised Procedural Manual for DAO 2003-30 to confirm the necessity to conduct EIA process and required reports to submit to the EMB. Then, each project shall be followed (1) Scoping Stage, (2) EIA study Stage and (3) the Report Review and Evaluation Stage as follows.

(1) Application Process for EIA-Based ECC (PEIS, EIS, PEPRMP and EPRMP)

Scoping Stage

As for social preparation, Information, Education and Communication (IEC) of LGUs with jurisdiction over the project area is a required the Proponent-driven activity, used as a basis for identification of stakeholders and issues in preparation for Public Scoping. Prior to IEC, tentative impact areas need to be determined by the Proponent. Stakeholders can then be identified with LGU assistance. On the other hand, the Proponent shall submit to the EMB five (5) sets of Pro-forma

Letter of Request for Scoping, attaching the Pro-forma Project Description for Scoping, with supporting documents including a) Map and Description of Preliminary Impact Areas, b) Stakeholder ID Form, c) Summary IEC documentation, and d) Filled out scoping portion of the appropriate EIA Scoping/Procedural Screening Checklist (SPSC), available for EIS and for EPRMP. Within five (5) working days from receipt of letter-request, EMB forms the EIA Review Committee. In coordination with the Proponent, EMB confirms the date and venue of the Three-Level Scoping Activity, that is a the Proponent-driven activity, preferably done one-time on site or in the region of project location:

#### EIA Study Stage

After the EMB Chief will review and approves the EIA SPSC, rendering official the final TOR of the EIA Study, the Proponent shall undertake the EIA Study, with the assistance of its EIA Preparer Team. Then, the Proponent shall submit EIA report ((P)EIS or (P)EPRMP) and filled-out Procedural Screening portion of the SPSC. Within three (3) days from receipt by EMB Central Office (CO) or Regional Office (RO) of the EIA report, the Screening Officer validates the procedural screening done by the Proponent. If conforming, the Proponent will be instructed to pay the filing fee.

#### Report Review and Evaluation Stage

The review and issuance of ECC should be done within 40 working days by EMB CO or within 20 days by EMB RO.

After receiving the filing fee, the EIA Review Committee and resource person through a formal invitation/contract review EIA report. Each members will fill up the Pro-forma Additional Information (AI) Request for submission before or during the 1st RT Meeting.

During the review proper, the Proponent should conduct site visit (SV) and public hearing (PH). If Public Hearing is waived due to absence of 1) significant mounting opposition, AND 2) written request for PH, both based on valid concerns within the DENR/EMB mandate, public consultation (PC) will be required.

After conducting SV/PH/PC, the Proponent should submit the responses for AIs that must include response to issues raised by the stakeholders and EMB during the SV/PH/PC within 15 working days. If needed, 2<sup>nd</sup>/3<sup>rd</sup> review team meeting will be held to consolidate another AIs. The EIARC Chair at the latest shall submit the EIARC Report within five (5) days from the last EIARC meeting. After that, the Review Process Report (RPR)/Recommendation Document shall be prepared and submitted by the EMB Case Handler (CH) to the EIA and Management Division (EIAMD). After EIAMD endorse the decision document, EMB will issue the ECC to concerned DENR office, other GAs and LGUs with mandate on the project for integration of recommendations into their decision-making process.

## (2) Application Process for IEE-Based ECC

#### Scoping Stage

The Proponent may opt to request EMB RO to scope the IEER. In the scoping meeting, the Proponent and EMB RO jointly fill out the Scoping Checklist.

#### EIA (IEE) Study Stage

The Proponent will undertake the IEE Study and submit IEER/IEEC to the EMB RO, together with the filled out Procedural Screening Checklist for the IEER submission. The Proponents will also fill out Project Environmental Monitoring and Audit Prioritization Scheme (PEMAPS) Questionnaire and prepare Pro-forma Sworn Statements of Accountability of the Proponent and the Preparers.

Within three (3) days from receipt by EMB of the IEER, the Screening Officer validates the procedural screening done by the Proponent. As for the IEEC, within one (1) day from receipt of the report, the Screening Officer validates the completeness of the IEEC to ensure the information is sufficient to make a decision on the application. If conforming, the Proponent will be instructed to pay the filing fee.

#### Report Review and Evaluation Stage

The review and issuance of ECC should be done within 20 working days by EMB RO.

After receiving the filing fee, the EMB CH review the EIA Report solely or with the assistance of EMB/DENR Reviewers, who are invited by the EMB CH. If needed, site visit, public hearing or public consultation may be required to conduct during the review.

The Review Process Report (RPR)/Recommendation Document shall be prepared and submitted by the EMB Case Handler (CH) to the EIAMD Regional Office. After EIAMD endorse the decision document, EMB RO will issue the ECC to concerned DENR office, other GAs and LGUs with mandate on the project for integration of recommendations into their decision-making process.

#### (3) Application Process for CNC

The Proponent who applies CNC shall submit the Project Description Report (PDR) to EMB CO/RO. Within one (1) day from receipt of the report, the Screening Officer validates the completeness of the PDR to ensure the information is sufficient to make a decision on the application. If conforming, the Proponent will pay the filing fee. After receiving the fee, EMB will review the PDR within fifteen (15) days. Recommendation shall be prepared and submitted by the EMB CH to the EIA MD. After EIAMD endorse the decision document, EMB CO/RO will issue the CNC to concerned DENR office, other GAs and LGUs with mandate on the project for integration of recommendations into their decision-making process within five (5) working days.

#### 6.3.4 Study Items to be included into EIA

Environmental Impact Assessment Report should focus only on the most essential information for specific project type. The basic outline of the required documents for proposed new single projects and for single project expansion/modification is shown in the Table 6.3-5. Other detailed outlines of the required documents including PEIS, EPRMP, PEPRMP are shown in the Appendix 6-3.

**Table 6.3-5 Outline for EIS, IEER and IEEC**

<b>Chapter</b>	<b>Section/Contents</b>	
I. Project Description	1.1 Project Location and Area 1.2 Project Rationale 1.3 Project Alternatives 1.4 Project Components 1.5 Process/ Technology Options 1.6 Project Size 1.7 Development Plan, Description of Project Phase and Corresponding Timeframes 1.8 Manpower	
II. Analysis of Key Environmental Impacts	2.1 Land	2.1.1 Land Use and Classification 2.1.2 Geology/ Geomorphology 2.1.3 Pedology 2.1.4 Terrestrial Biology
	2.2 Water	2.3.1 Hydrology/Hydrogeology 2.3.2 Oceanography 2.3.3 Water Quality 2.3.4 Freshwater or Marine Ecology
	2.3 Air	2.3.1 Meteorology/Climatology 2.3.2 Air Quality (& Noise)
	2.4 People	2.4.1 Identify settlers that will be displaced from among the existing settlers 2.4.2 Discuss the immigration patterns impact as a result of project implementation 2.4.3 Discuss the impacts on IPs and Culture/lifestyle (if any) 2.4.4 Discuss the project implementation's threat to public health vis-a-vis the baseline health conditions in the area 2.4.5 Discuss local benefits expected from project implementation 2.4.6 Discuss how the project would affect the delivery of basic services and resource competition in the area 2.4.7 Discuss how the project would affect traffic situation in the area 2.4.8 Identify entity to be accountable for environmental management in the area 2.4.9 Discuss how the project would affect existing properties in the area in terms of relocation and devaluation 2.4.10 Identify affected properties
III. Environmental Risk Assessment	Ecological	Identify and provide management measures for: <ul style="list-style-type: none"> <li>• Chronic Risks</li> <li>• Acute Risks / Worst Case Scenario</li> </ul>
IV. Impact Management Plan		
V. Social Development Framework (Social Development Program) and IEC Framework		
VI. Environmental Compliance Monitoring		
VII. Emergency Response Policy and Generic Guidelines		
VIII. Abandonment/ Decommissioning/ Rehabilitation Policies and Generic Guidelines		
IX. Institutional Plan for EMP Implementation		

Source: Memorandum Circular No.2010-04 (2010)

As per the projects with high risk or impact due to geohazard status of the proposed location, e.g., housing projects on critical slopes, high rise buildings and dams, the EIA study for abovementioned shall include the identification of geohazards in the area, which shall be basis for the recommendation in the ECC for further geological assessment and preparation of Geological Identification Report (GIR) or Geohazard Assessment Report (GAR) or Engineering Geological Assessment Report (EGGAR) for submission to and review by the relevant competent agencies<sup>27</sup>.

<sup>27</sup> Memorandum Circular No.2010-002, EMB, September 2010

Also, Social Development Program (SDP) shall be required for all ECPs, while may only be required for EIS-based NECPs with high social impacts to be determined by the EMB Regional Office (RO)<sup>28</sup>.

### 6.3.5 Procedure and Actual Situation of Information Disclosure and Public Consultation/Participation

One of operating principles of the PEISS is that the EIA process shall be based on a timely, well-informed public participation of potentially affected communities, stakeholders in both direct and indirect impact areas need to be informed of, and consulted on, the project proposal at earliest EIA stage as possible.

#### (1) Information, Education and Communication (IEC) and Public Scoping

The Proponent are required to be covered by Information, Education and Communication (IEC) at the Pre-Scoping stage as a requirement for preliminary identification of sectoral stakeholders who shall be invited to attend the Public Scoping. The projects which are required to submit (p)EIS or (P)EPRMP shall conduct the Public Scoping. It is intended to surface preliminary key environmental issues by sectoral stakeholders.

#### (2) Public Hearing/ Public Consultation

With an aim of disclosure of the EIA findings for ECPs, Public Hearing or Public Consultation shall be implemented with the participation of all the stakeholders. The projects which are required to submit (p)EIS or (P)EPRMP shall conduct the Public Hearing. Public Hearing is initiated by the EMB, but its cost should be covered by the Project Proponent. A waiver of the Public Hearing requested by the Proponent may be granted by the DENR-EMB if there is no mounting opposition or written request for one with valid basis. In such cases, the Public Consultation might be conducted. Prior to Public Hearings or Public Consultations, the Proponent is required to give copies of EIA report and relevant documents to EMB regional offices, LGUs and other stakeholders for a well-informed participation in the hearing/consultation process. The notice of both Public Hearing and Public Consultation shall provide explicit instructions on registration, access to EIA report and relevant documents to stakeholders before implementation.

#### (3) Involvement of Indigenous Peoples in Decision-Making Process

NCIP Administrative Order No.1, namely, the Free and Prior Informed Consent (FPIC) guidelines promulgated by the National Commission of Indigenous People (NCIP) in 2006 stipulate securement of genuine participation of Indigenous Cultural Communities (ICC) and Indigenous Peoples (IPs) in decision-making as well as protection of the rights of ICCs/IPs in the introduction and implementation of activities that will impact upon their Ancestral Domains/Lands(ADs/ALs). Also, the Proponent of the Project which can affect the ADs/ALs shall obtain the Certification Precondition from the NCIP attesting that the applicant has complied with the requirements for securing the affected ICC/IP's FPIC.

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<sup>28</sup> Memorandum Circular No.2010-002, EMB, September 2010

### 6.3.6 Information Disclosure of EIA and Environmental Permissions

Prior to Public Hearing and Public Consultation, copies of the full EIA report are made accessible at the concerned EMB Regional Offices and host municipalities. Concerned Barangays are also provided with the Executive Summary of the EIA Report.

After the ECC is transmitted, the ECC is posted in the public places with copies of the full EIA report and copies of the ECC are distributed to concerned parties by the Project Proponent. ECC approval is also posted at the official website of the Environmental Management Bureau.

### 6.3.7 Requirements for Preparation of Environmental Management Plan (EMP)

The EMP (Environmental Management Plan) is composed of the Impacts Management Plan (IMP), the Social Development Plan (SDP), Information Education and Communication (IEC) Plan. The EMP is one of the chapter of the (P)EIS and (P)EPRMP.

#### **Impacts Management Plan (IMP)**

The objective of the IMP is to limit to most significant impacts per project phase and per environmental component arising from key environmental aspects. The IMP shall contain the following; a) Project Phase/Activities, b) Environmental component likely to be affected, c) Potential impact, d) Options for prevention or mitigation, e) Responsible entity f) cost, and g) Guarantee/ financial arrangements.

#### **Social Development Plan (SDP)**

The SDP shall be required for all ECPs. These may be required for EIS-based ECC applications for non ECPs based on the EMB-RO's discretion. The SDP normally aims to prevent/mitigate and/or enhance a project's adverse and positive impacts, respectively, on people's livelihood, health and environment.

The SDP shall contain the following; a) Livelihood or community development programs/activities, b) Responsible community members/beneficiaries, c) partner institutions (government, NGO, others), d) timeframe implementation, and e) source and amount per activity/ component.

#### **Information Education and Communication (IEC) Plan**

The IEC Plan shall be required for all ECPs. These may be required for EIS-based ECC applications for non ECPs based on the EMB-RO's discretion.

The IEC shall include the following information; a) Target sector identified as needing project IEC, b) Major topic/s of concern in relation to project, c) IEC scheme/ Strategy/ Methods, d) Information Medium, e) Indicative timelines and frequency, and f) Indicate cost.

## 6.4 Monitoring

### 6.4.1 Relevant Regulations and Procedure of Monitoring

#### (1) Relevant Regulations

##### **Revised Procedural Manual for DAO No.30 series of 2003 (2008)**

Revised Procedural Manual for DAO 2003-30 (2008) provides procedures for monitoring, validation and evaluation of the projects that are required to acquire the ECC.

##### **Procedural and Reference Manual for DAO 2003-27 (2003)**

The projects which are potential/actual sources of pollution<sup>29</sup> are required to submit regular Self-Monitoring Report (SMR) on a quarterly basis to the EMB-RO concerned under DAO No.03-27. Procedural and Reference Manual for DAO 2003-27 (2003) provides procedure of SMR with seven (7) modules, that includes Module 5 intended to provide information related to compliance on PD.1586 (EIS System).

#### (2) Purpose of Monitoring

In the Revised Procedural Manual for DAO No.2003-30 (2008), the primary purpose of monitoring, validation and evaluation/audit is mentioned to ensure the judicious implementation of sound environmental management within a company/corporation and its areas of operation. Specifically, it aims to ensure the following:

- a) Project compliance with the conditions set in the ECC;
- b) Project compliance with the Environmental Management Plan (EMP);
- c) Effectiveness of environmental measures on prevention or mitigation of actual project impacts vis a vis the predicted impacts used as basis for the EMP design; and
- d) Continual updating of the EMP for sustained responsiveness to project operations and project impacts.

#### (3) Monitoring by Project Proponent/Company

The Proponents issued ECCs are primarily responsible for monitoring their projects. They are required to submit two kinds of monitoring reports, the ECC Compliance Monitoring Report (CMR) on semi-annual frequency and the Self-Monitoring Report (SMR) on a quarterly basis to the concerned EMB RO.

##### **Compliance Monitoring Report (CMR)**

The CMR requirement is to report performance at three (3) levels, at the minimum, as follows: a) performance against the ECC conditions; b) performance against the EMP; and c) performance against the monitoring of actual impacts (including residual impacts) as against predicted impacts in the EIA Report and as related to current project operations.

The semi-annual CMRs shall be submitted as Module 5 of the second and fourth quarter SMRs. The First CMR shall be submitted mid-year after the start of project implementation, except for ECC commitments/conditions, which need to be submitted prior to project start-up. The second CMR

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<sup>29</sup> The requested firms to submit regular SMR are enunciated in Annex A and Annex B of the DAO No.92-26 (1992).

shall include a simple trend analysis of the environmental standards and a summary of the cumulative annual and historical performance/compliance analysis on key environmental and social parameters, e.g. total areas successfully re/planted for the year and since project implementation; total local jobs generated; total population covered by IEC; total benefits given and total beneficiaries; total or % exceedances to standards; total violations, etc.

**Self-Monitoring Report (SMR)**

The SMR includes the detailed report on compliance to environmental standards specific to environmental laws as required by DAO No. 2003-27. Table 6.4-1 shows seven modules of SMR.

**Table 6.4-1 Seven Modules of SMR**

Module		Contents
0	General Information Sheet	This module provides basic information about the establishment, firm or facility. This module shall only be prepared once.
1	General Information	This module provides background information about the establishment, firm or facility including changes or modifications of Module 0.
2	R.A. 6969	This module provides information on compliance with the requirements of R.A. 6969 (Hazardous Wastes Treater or Recycler). This module is composed of three sub-modules: A) Compliance with CCO-related requirements, B) for hazardous wastes treater and recycler, and C) for hazardous wastes generator.
3	P.D. 984	This module provides information on compliance with the requirements of P.D. 984 (Water Pollution).
4	R.A. 8749	This module provides information on compliance with the requirements of R.A. 8749 (Air Pollution).
5	P.D. 1586	This module provides information on compliance with the requirements of P.D. 1586 (EIS System).
6	Others	This module provides additional information that are not exclusive to any of the other module/s.

Source: Procedural and Reference Manual for DAO 2003-27 (2003)

**(4) Monitoring by Multi-partite Monitoring Team**

The Multi-partite Monitoring Team (MMT) are composed of representatives of the Proponent and of stakeholder groups, including representatives from concerned LGUs, locally accredited NGOs/POs, the community and concerned EMB Regional Office. Only projects required a PEIS and Group I (ECPs) are required to form project-specific MMT. For Group II-EIS (NECPs in ECA), the EMB Regional Offices have the option to require the formation of MMTs. The MMT should submit the generic Compliance Monitoring and Validation Report (CMVR) semi-annually to the concerned EMB RO, with the Proponent’s CMR/SMR as attachment. Moreover, the second CMVR shall preferably present a qualitative desk-validation of the trend analysis report and cumulative environmental performance of the Proponent.

The MMT shall perform the following general functions:

- i) Validate project compliance with the conditions stipulated in the ECC and the EMP;
- ii) Validate Proponent’s conduct of self-monitoring;
- iii) Receive complaints, gather relevant information to facilitate determination of validity of complaints or concerns about the project and timely transmit to the Proponent and EMB

- recommended measures to address the complaint;
- iv) Prepare, integrate and disseminate simplified validation reports to community stakeholders;
- v) Make regular and timely submission of MMT Reports based on the EMB-prescribed format.

Table 6.4-2 shows summary of activities related to Monitoring, Validation and Evaluation/Audit Schemes.

**Table 6.4-2 Monitoring, Validation and Evaluation/Audit Schemes**

Monitoring Aspects		Frequency / Timing		
		Proponent Self-Monitoring	MMT Validation of Proponent's Performance	EMB Evaluation/ Audit
A. Compliance Reporting	ECC	Semi-annual in CMR	Semi-annual in CMVR <sup>2</sup>	Semi-annual in CER <sup>3</sup>
	EMP <sup>1</sup>	Semi-annual in CMR	Semi-annual in CMVR <sup>2</sup>	Semi-annual in CER <sup>3</sup>
	Environmental Standards (under specific environmental laws)	Detailed report in Quarterly SMR; Summary of compliance in semi-annual CMR	Semi-annual in CMVR <sup>2</sup>	Semi-annual in CER <sup>3</sup>
B. Field Validation		-	Semi-annual	Semi-annual, or whenever there are complaints, exceedance of standards, suspicious data <sup>4</sup>
C. Effectiveness of Environmental Management Measures	Sampling and Measurement	Monthly/ Continuous as committed in the Environmental Monitoring Plan (EMoP) within the EMP	Only in cases of complaints/ exceedance of standards/ Suspicious data <sup>4</sup>	As the need arises in coordination with the MMT <sup>4</sup>
	Trend Analysis / Cumulative Performance Report <sup>5</sup>	2nd semi-annual CMR; 4th Quarter SMR	2nd Semi-annual CMVR	2nd semi-annual CER

<sup>1</sup> The EMP (Environmental Management Plan) is composed of the Impacts Management Plan (IMP), the Social Development Plan (SDP), Information Education and Communication (IEC) Plan,

<sup>2</sup> CMVR has the Proponent's CMR/SMR as an attachment

<sup>3</sup> CER is Compliance Evaluation Report prepared by the EMB Case Handler/staff and shall attach the Proponent's CMR/SMR and MMT's CMVR

<sup>4</sup> The composite EMB Team (if project has no MMT) conducts validation, or if the Proponent has an existing MMT, the EMB personnel undertake validation as a member of the MMT. Should a composite team be needed to address a mix of issues within the respective mandate of the EMB divisions/units, the EMB composite team shall join the particular MMT validation activity so that there is only one integrated group validating the issues.

<sup>5</sup> Trend Analysis is undertaken on key significant environmental parameters in relation to standards while Cumulative Performance Report is done on applicable key significant impacts and measures.

Source: Revised Procedural Manual (2008)

#### (5) Monitoring of Projects issued CNCs

Projects issued CNCs are not subject to monitoring under the EIS System.

#### 6.4.2 Information Disclosure of Monitoring Results

After the project starts to implement, the Proponent shall require to undertake a continuing Information, Education and Communication (IEC) Program. All monitoring reports, that is SMR, CMR and CMVR by MMT are to be disclosed. The Proponent is responsible to explain to all stakeholders the final approved Environmental Management and Monitoring Plan (EMMoP) and the conditions of this ECC as well as an update of project status including any significant changes on the EMMoP and over-all performance against the ECC.

#### 6.4.3 Treatment Method and Procedure of Problems if they were confirmed

##### Penalty of Violation

In the case that any violation of the condition of the ECC, environmental standards, rules and regulations are found, the Project Proponent shall be punished the suspension or cancellation of the ECC, or imposition of fines and penalties. Or the EMB may issue a Cease and Desist Order (CDO) based on violation under the PEISS which cannot be attributed to specific environmental laws and/or which present grave or irreparable damage to the environment. Such CDO shall be effective immediately.

#### 6.5 Other Issues and Problems

One of the challenges on the PEISS is the EMB's strategy on tracking down the status of about 41,000 ECCs (in 2007) issued to different types of projects as to whether they are still operational and complying with the ECC conditions and EIS requirements. With the limited resources of EMB, minimal attention has been given to compliance monitoring. Efforts are being exerted by EMB on this concern which include the development of a web-based database system and monitoring protocols. EMB continuously take actions to improve the system.

#### 6.6 Analysis of Gaps between Current Relevant Regulations in the Philippines and JICA Guidelines for Environmental and Social Considerations (April, 2010) as well as Safeguard Policies in the World Bank

Appendix 6-4 shows the gaps between current relevant regulations in the Philippines and JICA Guidelines for Environmental and Social Considerations (April, 2010) as well as Safeguard Policies in the World Bank. There are no significant differences in these regulations.



## **Chapter 7**

# **Relevant Regulations and Procedure of Land Acquisition and Involuntary Resettlement**



## Chapter 7. Relevant Regulations and Procedure of Land Acquisition and Involuntary Resettlement

### 7.1 Relevant Regulations

#### 7.1.1 Relevant Regulations at National Level

Major regulations at a national level related to land acquisition and involuntary resettlement in Philippines are as follows;

##### **The Philippine Constitution of 1987 (1987)**

The basic policy for land and resettlement are stipulated as follows;

- Private property shall not be taken for public use without just compensation (Article III, Section 9)
- The State shall, by law, and for the common good, undertake, in cooperation with the private sector, a continuing program of urban land reform and housing which will make available at affordable cost, decent housing and basic services to under-privileged and homeless citizens in urban centers and resettlement areas. (Article VIII, Section 9);
- No resettlement of urban or rural dwellers shall be undertaken without adequate consultation with them and the communities where they are to be relocated (Article VIII, Section 10)

##### **Republic Act No. 7160 (1991): Local Government Code of 1991**

The Act defined that an Local Government Unit (LGU) may exercise the power of eminent domain for public use, purpose, or welfare of the poor and the landless such as for socialized housing, upon payment of just compensation pursuant to the provisions of the Constitution and pertinent laws.

##### **Republic Act No. 7279 (1992): Urban Development and Housing Act (UDHA) of 1992**

This Act provides policy to undertake, in cooperation with the private sector, a comprehensive and continuing Urban Development and Housing Program. The program is aimed to uplift the conditions of the underprivileged and homeless citizens in urban areas and in resettlement areas by making available to them decent housing at affordable cost, basic services, and employment opportunities. The Program covers lands in urban and urbanizable areas, including existing areas for priority development, zonal improvement sites, slum improvement and resettlement sites.

During 1992 to 1997, eight of the implementation rules of regulations for RA No.7279 were enacted, which includes the Implementing Guidelines for the Acquisition, Valuation, Disposition and Utilization of Lands For Socialized Housing, the Guideline for Governing Summary Eviction and the Implementing Rules and Regulations to Ensure the Observance of Proper and Humane Relocation and Resettlement Procedures Mandated By the UDHA.

##### **Republic Act No. 8974 (2000): An Act to Facilitate the Acquisition of Right-of-Way**

This act declares as a policy of the State to ensure that owners of real property acquired for national government infrastructure projects are promptly paid just compensation. Under the Act, the National Housing Authorith (NHA) shall establish squatter relocation sites, including the provision of adequate utilities and services in coordination with the concerned logal government unites (LGUs), the Housing and Urban Development Coordinating Council, the implementing agency and other

government agencies. This is the revision of the Executive Order No.1035 of 1985. The Implementing Rules and Regulations of the RA No.8970 was also enacted in 2000.

#### 7.1.2 Relevant Regulations of DPWH

##### **Department Order (DO) No.5 (2003): Creation of the Infrastructure Right of Way and Resettlement Project Management Office (IROW-PMO) and the Implementation of the Improved IROW Process**

This Order set the following rules;

- Implementing Office (IO) shall ensure that IROW costs are always included in project budgets.
- The IO shall provide an estimated cost breakdown of each project to the IROW and Resettlement PMO and the CFMS prior to any disbursement of funds. The first priority of the budget for a project shall be all costs prior to construction.
- If ROW costs differ from the approved ROW budget after detailed design has been finalized, a budget adjustment shall be approved.
- A Land Acquisition Plan and Resettlement Action Plan (LAPRAP) shall be prepared for all projects, whether local or foreign funded, that will require Right-of-Way (ROW) acquisitions, using a standardized compensation package.
- The determination of Affected Persons (APs) and improvements shall be based on the cut-off date, which is the start of the census of APs and tagging for improvements.
- The IO shall prepare the final as-built ROW Plan upon completion of the project, for submission to the IROW and Resettlement PMO.

##### **Infrastructure Right-of-Way (IROW) Procedural Manual (2003)**

The Manual describes the step-by-step procedures of all the activities related to the acquisition and management of IROW, and integrates these activities, from the planning stage up to the management stage, in one smooth workflow.

##### **DO No.327 (2003) “Guidelines for Land Acquisition and Resettlement Action Plans (LAPRAPs) for Infrastructure Projects”**

This order provides guidelines to prepare LAPRAP based on the following policies;

- LAPRAP document shall describe the project, expected impacts and mitigating measures, socio-economic profile of APs, compensation package, timetable of implementation, institutional arrangements, participation, consultation, and grievance procedures.
- LAPRAP shall be prepared using inputs from the IROW Action Plan, the census and socioeconomic survey conducted, detailed engineering study, and parcellary survey results.
- LAPRAP shall be the basis for qualifying and compensating APs for lands, structures and/or improvements, that are partially or fully affected by the Department’s infrastructure projects.
- Provision of resettlement sites shall be the responsibility of the Local Government Units (LGUs) concerned, with assistance from the concerned government agencies tasked with providing housing.

- An Indigenous People's Action Plan (IPAP) shall be formulated for indigenous peoples (IP) if they are affected by the Department's infrastructure projects.

**Land Acquisition, Resettlement, Rehabilitation and Indigenous People's Policy (LARRIPP) (3<sup>rd</sup> Edition) (2007)**

Land Acquisition, Resettlement, Rehabilitation and Indigenous People's Policy (LARRIPP) includes the DPWH's Indigenous Peoples' Policy based on the Indigenous Peoples' Rights Act (IPRA) and the National Commission on Indigenous Peoples (NCIP) Administrative Order No. 1, series of 2006, or the Free and Prior Informed Consent Guidelines of 2006. It covers all Indigenous Peoples (IPs) or Indigenous Cultural Communities (ICCs) whether they are living inside or outside an area covered by a Certificate of Ancestral Domain Title (CADT) or Certificate of Ancestral Land Title (CALT), including those that have pending applications to be declared as ancestral domain. In general no Indigenous Peoples Action Plan (IPAP) is required for projects that are voluntarily solicited or initiated by IPs. Nevertheless, they are still eligible to receive compensation and entitlements mentioned in Chapter III of the LARRIPP.

## 7.2 Procedure of Land Acquisition and Involuntary Resettlement

### 7.2.1 Procedure of Land Acquisition and Involuntary Resettlement

#### 7.2.1.1 Procedure of Land Acquisition under the R.A. 8974 and its IRR

- (1) Any Implementation Agency may explore, as its first option, the donation by the private property owners concerned of the needed portion or whole of their affected properties. If the property owner agrees to donate his property to be acquired by the government as ROW, the deed of donation shall immediately be prepared.
- (2) If the owner of the property is not willing to donate his property to the government, the Implementing Agency shall negotiate with the owner for the purchase of the property, offering as just compensation the price indicated in the current zonal valuation<sup>30</sup> issued by the Bureau of Internal Revenue (BIR) for the area where the private property is located.
- (3) In the case the owner disagree with the price based on the BIR zonal valuation, the Implementing Agency shall negotiate with the owners the purchase price which shall not be higher than the fair market value of the property. The Implementing Agency may engage the services of government financing institution and/or private appraisers to undertake the appraisal of the property, i.e. the land and/or improvements/structures, and to determine its fair market value. During the negotiation, the property owner shall be given fifteen (15) days within which to accept the amount offered by the Implementing Agency as payment for his property.
- (4) If the owner does not agree to convey his property to the government, then the government shall exercise its right of eminent domain by filing a complain with the proper Court for the expropriation of the private property. Upon the filing of the complaint, and after due notice to

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<sup>30</sup> Zonal value which is derived from land sale records is different from the replacement cost which is required by the World Bank Safeguard Policies.

the property owner, the Implementing Agency shall immediately pay the property owner the value of land based on the current zonal valuation and/or improvements/structures. On the other hand, The Court shall determine the just compensation to be paid to the owner within sixty (60) days from the date of the filing. The Implementing Agency shall pay the owner the difference between the amount already paid and the just compensation determined by the Court.

#### 7.2.1.2 Procedure under the IROW Procedural Manual of DPWH

##### (1) Implementation of the Percellary Survey and Formulation of the Report

The Implementing Office (IO) or duly accredited consultants shall conduct a Percellary Survey (PS) as following steps:

- ① There should be at least one meeting in each city/municipality before conducting the Percellary Survey to explain the purpose of the survey, the activities that will be undertaken, and the data requirements.
- ② The IROW Action Plan prepared in advance during project identification shall be updated which includes such as: cadastral maps of the areas, pricing of land based on BIR zonal value, schedule of payments for improvement, number and names of barangays to be affected, and type of land use.
- ③ Get the cadastral maps and list of landowners from the respective Assessor's Offices and Certificate of Ancestral Domain Claim (CADC) areas from the DENR Land Management Bureau or Land Management Section of concerned DENR Regional Office.
- ④ Determine current condition of lots needed for ROW and if there are proclaimed protected areas or CADC areas in the project site.
- ⑤ Coordinate with the respective barangay captains regarding the schedule of field survey. Show them the listings of landowners and request to refer local guides who are very familiar with the site to ask support for proceeding for monumenting and detailed mapping.
- ⑥ Using the data obtained, prepare a Percellary Survey Plan (PSP) containing, i) design road structure, ii) IROW boundary for the project, iii) affected lots showing the name of the owner, lot number, and area in square meters, and iv) all improvements within the IROW limit.
- ⑦ Submit the PSP to the IO for approval.
- ⑧ Prepare the Percellary Survey Report (PSR) including the general location of the project, PSP, IROW land data matrix and lot data computations showing delineation affected area. Submit the PSR to the Head of the concerned IO.

##### (2) Preparation of Land Acquisition Plan and Resettlement Action Plan (LAPRAP)

In accordance with DO No.5 Series of 2003, LAPRAP shall be prepared for all projects, which the project includes land acquisition or resettlement. The preparation of the LAPRAP is initiated once the project has obtained oversight approval by the DPWH and the NEDA. The LAPRAP embodies the following information:

- Number and identity of Project Affected Persons (PAPs)

- Degree (marginal or severe) and scale of adverse impacts that will be brought about as a consequence of project implementation, particularly in terms of loss of land and other fixed assets, as well as income
- Mitigation measures to minimize foreseeable said adverse socio-economic impacts
- Appropriate compensation package for the PAPs
- LAPRAP Implementation Schedule
- Overall estimated resettlement cost

The procedure to formulate the LAPRAP is as follows:

- ① Conduct consultation meetings with the City/Municipal Officials
- ② Conduct barangay-level Public Consultation Meeting (PCMs). The following are considered mandatory during the PCMs.
  - Brief project description
  - Reiteration of concept of LAPRAP as a tool for socio-economic development
  - Tagging and taking of photographs of owner and structures
  - Specify the Cut-Off date, which is reckoned as the start of the census for PAPs and tagging for improvements.
  - Importance of honesty and accuracy of responses in the census and socio-economic survey to be carried out
  - Open forum to allow the PAPs to express their ideas, apprehensions, concerns and even objections regarding the proposed project
- ③ Conduct census and socio-economic survey of the PAPs.
- ④ Determine the compensation package which includes replacement cost for structure, crops and other improvements, income loss and financial assistance. As specified in the RA No.8974, the land price is evaluated based on the current zonal valuation issued by the Bureau of Internal Revenue (BIR) for the area where the private property is located, plus the value of improvements and/or structures based on replacement cost.
- ⑤ Prepare the LAPRAP Report and submit it to the appropriate approving authority.
- ⑥ Approval of the LAPRAP shall be by the head of the Implementing Office (IO). i.e.,
  - If IO is a District Engineering Office (DEO), Head of the IO is District Engineer
  - If IO is a Regional Office (RO), Head of the IO is Regional Director
  - If IO is a Project Management Office (PMO), Head of the IO is Project Director
  - If IO is a Central Office (CO), Head of the IO is Director of Bureau of Design (BOD)

### (3) IROW Acquisition Through Purchase

As stated in DO No.5 Series of 2003, the first mode of IROW acquisition should be to request donation from the property owner. If the landowner refuses to donate the land, the following procedure shall be done to acquire ROW through purchase.

- ① Using the Parcellary Survey Report and the LAPRAP, determine number and names of the land owners

- ② Prepare the Notice of Taking informing the property owners about the need to acquire their property to give way to a government project
- ③ In the same letter, request the landowners to submit to the IO copies of TCT/OCT/EP/CLOA and Tax declaration/clearance.
- ④ When the landowner submits proof of ownership, make the first offer based the compensations indicated in the respective LAPRAP prepared.
- ⑤ If the owner fails, or refuses to submit proof of ownership, prepare a second Notice of Taking. In the said notice, mention that if they don't respond within 15 days, then the DPWH shall initiate expropriation proceedings.
- ⑥ If the owner accepts the offer, execute a contract of sale between the owner and the relevant authorities.
- ⑦ If the owner rejects the offer, the IO shall request the respective Appraisal Committee (AC) of the concerned LGUs to appraise land and improvements to be affected by the ROW.
- ⑧ The AC will then form its own Technical Team, supported by the IO.
- ⑨ Based on field survey and research, the AC shall compute just compensation for land and improvements, and utilities affected, in accordance with RA No.8974.
- ⑩ If the valuation based on the resolution of the AC is accepted by the IO, proceed to step ⑥
- ⑪ If the valuation is rejected by the IO, it shall engage the services of an Independent Land Appraisal (ILA) to make its own valuation of the land, along with the improvements in it. Rejection of the said resolution may be based on the following considerations:
  - Valuation of properties deviated by  $\pm 20\%$  from the value obtained in the LAPRAP.
  - A member of the AC is related to the landowner by kinship.
  - When there is high probability of political intervention.
- ⑫ Compare the appraisal values submitted by the AC and the ILA. The lower of the two values shall be the basis of the second offer to be made.
- ⑬ Make an offer in writing to the property owner. In accordance with RA No.8974, the property owner is given 15 days within which he shall decide whether to accept the offer as payment for his property or not.
- ⑭ If the owner rejects the second offer, expropriation proceedings shall be initiated.
- ⑮ If the owner accepts the second offer, execute a contract of sale.

#### (4) Expropriation Proceedings

In cases where the property owner refuses the second offer, the DPWH shall initiate expropriation proceedings as follows:

- ① Get Parcellary Survey Report and the LAPRAP and compile all original and/or certified true copies of the tax declaration for land and improvements if any and so on.
- ② Prepare an IROW Compensation Matrix showing the name of owners, title number, total area, affected area, type of improvement, replacement cost of improvements, and BIR zonal value of affected area.
- ③ Request the Office of the Solicitor General (OSG) to deputize the Provincial/City prosecutor or

DPWH Lawyer to act in behalf of the OSG in the filing of complaint to the proper Court.

- ④ After being deputized, file the case with the Regional Trial Court (RTC) of the concerned City/Municipality or Province. The IROW Compensation Matrix prepared in Step ② will form part of the case, whereas the documents prepared in Step ① will comprised the Attachments.
- ⑤ The RTC will then issue the Summons and direct the concerned Sheriff to deliver said Summon to each of the defendants.
- ⑥ Prepare a voucher for the deposit to be made. The amount should be equivalent to 100% of the value of land based on the current BIR zonal valuation, plus the value of improvements and/or structures based on replacement cost which are obtained from the LAPRAP.
- ⑦ The Court shall appoint more than three competent and disinterested persons as commissioners to ascertain and report to the Court the just compensation for the property sought to be taken.
- ⑧ Attend hearings of possession set by the RTC. During the hearings, the property owner may request the RTC for withdrawal of the deposit. The owner may withdraw a portion of, or the entire amount of deposit, depending on the decision of the RTC.
- ⑨ The appointed commissioners shall then submit within 60 days from their appointment, a full and accurate report containing their recommendations. The owner of the property has 10days to file objection to the commissioners' report.
- ⑩ When the decision of the Court becomes final and executor, the IO shall pay the property owner the difference between the amount already paid and the just compensation as determined by the Court.

### 7.2.1.3 Involuntary Resettlement of Squatter

Treatment of squatter is mainly stipulated in RA No.7279. Based on this Act, squatter shall not be requested to resettle without any relocated area for them provided by the project proponent in advance. The local government units shall be charged with the provision of relocated land in coordination with the Housing and Urban Development Coordinating Council and the National Housing Agencies.

### 7.2.2 Title Holders of Compensation

Under the IROW Procedural Manual (2003), the determination of the title holders of compensation, that is Project Affected Persons (PAPs), and improvements shall be based on the cutoff date, which is the start of the census of PAPs and tagging for improvements.

The criteria for eligibility for compensation is stipulated in the LARRIP Policy (2007) formulated by the DPWH as follow:

- Landowners
  - a Legal owners (agricultural, residential, commercial and institutional) who have full title, tax declaration, or who are covered by customary law (e.g. possessory rights, usufruct, etc.) or other acceptable proof of ownership.

- b Users of arable land who have no land title or tax declaration
- c Agricultural lessees
- PAP with Structures
  - a Owners of structures who have full title, tax declaration, or who are covered by customary law or other acceptable proof of ownership.
  - b Owners of structures, including shanty dwellers, who have no land title or tax declaration or other acceptable proof of ownership.
  - c Renters

As for squatter, the person who meet the following conditions are subject to relocation (as beneficiaries of the RA 7279).

- Filipino citizen
- The person whose income or combined household income falls within the poverty threshold
- The person who do not own housing facilities
- The person who are not the professional squatter and/or the member of the squatter syndicate

### 7.2.3 Contents and Calculation Policy of Compensation

#### (1) Compensation to Land

The implementation agency shall pay the property owner the amount equivalent to the sum of the value of the property based on the current zonal valuation of the Bureau of Internal Revenue (BIR). In case the owner disagrees with the price based on the BIR zonal valuation, the Implementing Agency shall negotiate with the owners the purchase price which shall not be higher than the fair market value to be determined by using the following relevant standards;

**Table 7.2-1 Issues to be Considered for Determination of Land Value**

<b>Contents to be taken into consideration</b>	<b>Notes</b>
(a) The classification and use for which the property is suited	This shall be based on the approved land use plan and/or zoning ordinance, if any, of the city or municipality concerned.
(b) The developmental costs for improving the land	This shall be based on the records and estimates of the City or Municipal Assessor concerned.
(c) The value declared by the owners	This shall be shown in their latest Tax Declaration Certificates or Sworn Statements
(d) The current selling price of similar lands in the vicinity	This shall be based on the records on Deeds of Sale in the office of the Register of Deeds concerned.
(e) The reasonable disturbance compensation for the removal and/or demolition of certain improvement on the land and for the value of improvements thereon	-
(f) The size, shape or location, tax declaration and zonal valuation of the land	-
(g) The price of the land as manifested in the ocular findings, oral as well as documentary evidence presented	-
(h) Such facts and events as to enable the affected property owners to have sufficient funds to acquire similarly-situated lands of approximate areas as those required from them by the government, and thereby rehabilitate themselves as early as possible.	-

Source: Section 7 of IRR of RA No.8974

(2) Payment for the improvements and/or structures

As described in the RA No.8974, the implementation agency shall determine the valuation of the improvements and/or structures on the land to be acquired using the replacement cost method. The replacement cost of the improvements/structures, based on the current market prices of materials, equipment, labor, contractor's profit and overhead, and all other attendant costs associated with the acquisition and installation in place of the affected improvements/structures. In the valuation of the affected improvements/structures, the Implementing Agency shall consider, among other things, the kinds and quantities of materials/equipment used, the location, configuration and other physical features of the properties, and prevailing construction prices. LARRIP Policy (2007) states that compensation covers the cost of reconnecting the facilities, such as water, power and telephone.

LARRIP Policy also states about compensation for crops, trees and perennials as follows:

- a. Cash compensation for perennials of commercial value as determined by the DENR or the concerned Appraisal Committee
- b. PAFs will be given sufficient time to harvest crops on the subject land
- c. Compensation for damaged crops (palay and corn) at market value at the time of taking. The compensation will be based on the cost of production per ha. pro-rata to the affected area.
- d. Entitlement for fruit-bearing trees will be based on the assessment of the Provincial or the Municipal Assessors where the project is located.

(3) Others

In addition to the above, DPWH shall determine the compensation package as stipulated in the LARRIP Policy (2007) based on the following:

- a) Disturbance Compensation: For agricultural land severely affected the lessees are entitled to disturbance compensation equivalent to five times the average of the gross harvest for the past 3 years but not less than PhP15, 000.
- b) Income Loss: not to exceed PhP15,000
- c) Inconvenience Allowance: PhP10,000.00
- d) Rehabilitation assistance (skills training and other development activities): PhP15, 000 per municipality
- e) Rental Subsidy (for the period between the delivery of house compensation and the delivery of land compensation)
- f) Transportation allowance or assistance.

(4) Relocation

As stipulated in the RA No.7279, squatter shall be provided by the LGUs or the National House Authority (NHA) in cooperation with the private developers and concerned agencies with the following basic services and facilities;

- a) Potable water

- b) Power and electricity and an adequate power distribution system
- c) Sewerage facilities and an efficient and adequate solid waste disposal system
- d) Access to primary roads and transportation facilities

There are no rules that relocated area shall be provided to the PAPs by the governmental agencies. However, there are some cases that the PAPs were provided the relocated area by project proponents in their own judgment.

#### 7.2.4 Contents of Livelihood Rehabilitation

There are no specific rules for livelihood rehabilitation so far, but on the process to acquire the Environmental Compliance Certificate (ECC), the project proponent would examine the contents of livelihood rehabilitation during the public consultation or formulation of Environmental Management Plan.

On the other hand, DPWH stipulates to provide training as rehabilitation assistance or agricultural assistance to the affected people if necessary.

As for squatter, the RA 7279 stipulates that the government agencies shall secure the following service to the relocated squatter.

- Organized community-based structures shall be strengthened so as to facilitate the delivery of services in the site.
- The identified leaders with the assistance of the NGOs shall be trained and equipped with proper organizational skills and attitudes necessary to effectively manage the affairs of the community.
- To promote the general well-being of resettled families, adequate social services in health, nutrition, education, responsible parenthood, environmental sanitation, etc. shall be provided in the resettlement sites jointly or under the auspices of cooperating agencies.
- To generate employment and income opportunities for the resettled families, the resettlement project shall act as a conduit for the families to avail of manpower training and livelihood program through sustained networking and resource syndication activities.

#### 7.2.5 Grievance Mechanism

There is no established grievance mechanism for land acquisition. The people who opposes have to tell their grievance to the project proponent or the Court. However under the RA No.8975, no court, except the Supreme Court, shall issue any temporary restraining order.

Based on the consultation of ADB and WB, the DPWH proposes the grievance mechanism in the LARRIP Policy (2007) as follows:

- 1) The PAPs will lodge their grievances by writing to the Resettlement Implementation Committee (RIC) for immediate resolution.
- 2) If the complaint is not satisfactorily resolved in 15 days or the PAP does not receive any

response from the RIC, the PAP can forward the complaint or file an appeal at the DPWH Regional Office (RO).

- 3) If the complaint is not satisfactorily resolved in 15 days or the PAP does not receive any response from the DPWH RO, the PAP can file a legal complaint in any appropriate Court of Law.

#### 7.2.6 Provision of Information to the Public and Public Consultation, Procedure of Public Participation and Its Current Condition

Under the IROW Procedural Manual, it is stipulated that the project proponent should conduct barangay-level Public Consultation Meeting (PCMs) during formulation of LAPRAP. The following are considered mandatory during the PCMs:

- Brief project description
- Reiteration of concept of LAPRAP as a tool for socio-economic development
- Tagging and taking of photographs of owner and structures
- Specify the Cut-Off date
- Importance of honesty and accuracy of responses in the census and socio-economic survey to be carried out
- Open forum to allow the PAPs to express their ideas, apprehensions, concerns

The LARRIP Policy (2007) specifies that the women, elderly who are among the PAPs shall likewise be consulted and mobilized to participate in the consultation meeting, and discussed with them the socio-cultural implication of the Resettlement Action Plan.

#### 7.2.7 Consideration of Indigenous People

In the LARRIP Policy (2007), the procedure of land acquisition and resettlement in case indigenous peoples will be affected by the project is explained.

By policy, adverse impact to the Indigenous Cultural Communities or Indigenous Peoples (ICCs/IPs) especially involuntary resettlement and relocation of ICC/IPs should be avoided where feasible. If these impacts are unavoidable, the project proponent should formulate the Indigenous Peoples Action Plan (IPAP) which sets out measures to ensure that affected ICCs/IPs receive culturally appropriate social and economic benefits.

##### (1) Land acquisition inside Ancestral Domain

In the event land (including structures, improvements, crops, trees, and perennials) is to be acquired inside an ancestral domain, the DPWH and its agents shall obtain the Free and Prior Informed Consent (FPIC)<sup>31</sup> of the affected ICC/IPs.

##### ① Land Acquisition without Resettlement

If passage through, and hence damage to and/or partial or total relocation of religious and cultural properties is unavoidable, this should be presented to the ICC/IPs in the Consultative Community

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<sup>31</sup> NCIP Administrative Order No.1, series of 2006

Assembly (CCA) or First Meeting whichever is applicable and obtained the FPIC of the affected ICC/IPs. The restriction involved by the project and its mitigation measures will also be disclosed by the project proponent to the affected ICC/IPs and include as part of the Memorandum of Agreement (MOA). The MOA with the additions written above shall serve as the Indigenous Peoples' Action Plan (IPAP).

② Land Acquisition with Removal and Resettlement

Following their customary law, the ICCs/IPs will be consulted regarding the resettlement site. The project affected families will be resettled as much as possible within their ancestral domain. When the resettlement site is outside the affected ancestral domain, the IPs will be consulted regarding the choice of resettlement site. The project proponent in cooperation with the relevant government agencies shall ensure that the resettlement site is of equivalent productive potential and spatial advantages, e.g. providing the same degree of access to resources and to public and privately provided services and protection. Barring this, the Resettlement Action Plan (RAP) as well as MOA should include measures to mitigate the lack of access to natural resources, basic services, and to cultural and religious sites. The MOA with additions written above shall served as the Indigenous Peoples' Action Plan (IPAP)

(2) Land Acquisition Affected IPs Outside Ancestral Domain

FPIC procedure is not required if the affected ICCs/IPs are outside of Ancestral Domain. However regardless of the impact, the project proponent will conduct a separate, meeting with the ICCs/IPs to disclose the project contents and adverse impact and to obtain their broad support for the project. If the project requires resettlement and the affected IPs were migrants in the place and would have to be resettled, the project proponent can represent the option of returning to their place origin. If this option were chosen, the project proponent with the NCIP will prepare the hosting community. If the place of origin and re-settlement of the affected ICCs/IPs were an ancestral domain or an area with a pending application to be declared such, the FPIC of the receiving ICCs/IPs would be obtained first following the FPIC Guidelines of 2006.

### 7.2.8 Information Disclosure

There are no specific regulation related to information disclosure about land acquisition and resettlement.

Under the IROW Procedural Manual, there are two kinds of information disclosure.

- During the formulation of LAPRAP, barangay-level Public Consultation Meetings shall be conducted and inform brief project description, reiteration of concept of LAPRAP with open forum.
- The results of the external monitoring shall be disclosed during the public consultation conducted in accordance to for each project resettlement plan.

### 7.3 Monitoring

As for monitoring of land acquisition and involuntary resettlement, the project that is issued ECC shall comply the rules stipulated in the ECC. But currently there are no other regulations to stipulate the monitoring in the Philippines so far. Most governmental agencies are conducting internal monitoring of the progress of land acquisition and its payment status. Only the aid project by the donors conducts periodical external monitoring by the independent agencies.

Under these conditions, DPWH made rules about monitoring and evaluation systems in the LARRIP Policy (2007) as follows:

#### (1) Internal Monitoring

The Environmental and Social Office (ESSO) of the DPWH shall conduct the supervision and in-house monitoring of implementation of the RAPs and the IPAPs. The findings are documented in the quarterly report to be submitted to the Project Management Office (PMO). Regarding the monitoring and evaluation of the situation of affected IP communities, the ESSO shall coordinate with the NCIP. Table 7.3-1 shows internal monitoring indicators.

#### (2) External Monitoring

An External Monitoring Agent (EMA) shall be commissioned by the DPWH-PMO to undertake independent external monitoring and evaluation. The EMA monitor once a month to verify results of internal monitoring, compensation process, the results of the information campaign and so on. The results of monitoring shall be disclosed during the public consultation conducted in accordance to for each project resettlement plan. Table 7.3-2 shows external monitoring indicators.

The final evaluation will be conducted three months after the completion of payments of compensation to PAPs and three months after completion of the IPAP. Moreover, the post-evaluation will be undertaken a year after the completion of the project to determine whether the social and economic conditions of the PAFs and the affected IPs.

**Table 7.3-1 Internal Monitoring Indicators**

Monitoring Indicators	Basis for Indicators
1. Budget and timeframe	<ul style="list-style-type: none"> <li><input type="checkbox"/> Have all land acquisition and resettlement staff been appointed and mobilized for the field and office work on schedule?</li> <li><input type="checkbox"/> Have capacity building and training activities been completed on schedule?</li> <li><input type="checkbox"/> Are resettlement implementation activities being achieved against the agreed implementation plan?</li> <li><input type="checkbox"/> Are funds for resettlement being allocated to resettlement agencies on time?</li> <li><input type="checkbox"/> Have resettlement offices received the scheduled funds?</li> <li><input type="checkbox"/> Have funds been disbursed according to the RAP?</li> <li><input type="checkbox"/> Has the social preparation phase taken place as scheduled?</li> <li><input type="checkbox"/> Has all land been acquired and occupied in time for project implementation?</li> </ul>
2. Delivery of Compensation and Entitlements	<ul style="list-style-type: none"> <li><input type="checkbox"/> Have all AFs received entitlements according to numbers and categories of loss set out in the entitlement matrix?</li> <li><input type="checkbox"/> Have AFs received payments for affected structures and lands on time?</li> <li><input type="checkbox"/> Have AFs losing from temporary land borrow been compensated?</li> </ul>

Monitoring Indicators	Basis for Indicators
	<ul style="list-style-type: none"> <li><input type="checkbox"/> Have all received the agreed transport costs, relocation costs, income substitution support and any resettlement allowances, according to schedule?</li> <li><input type="checkbox"/> Have all replacement land plots or contracts been provided? Was the land developed as specified? Are measures in train to provide land titles to PAFs?</li> <li><input type="checkbox"/> How many PAFs opted to donate their land to the government?</li> <li><input type="checkbox"/> How many PAFs did not receive payment because their title is covered by the provisions of Sec. 112 of CA 141?</li> <li><input type="checkbox"/> How many PAFs opted to donate their lands to the government?</li> <li><input type="checkbox"/> How many landholdings were subjected to quit claim? Easement?</li> <li><input type="checkbox"/> How many PAFs accepted the first offer at zonal valuation?</li> <li><input type="checkbox"/> How many PAFs rejected the first offer and accepted the second offer?</li> <li><input type="checkbox"/> How many PAFs resorted to expropriation?</li> <li><input type="checkbox"/> How many PAF households have received land titles?</li> <li><input type="checkbox"/> How many PAFs have received housing as per relocation options in the RPAP?</li> <li><input type="checkbox"/> Does house quality meet the standards agreed?</li> <li><input type="checkbox"/> Have relocation sites been selected and developed as per agreed standards?</li> <li><input type="checkbox"/> Are the PAFs occupying the new houses?</li> <li><input type="checkbox"/> Are assistance measures being implemented as planned for host communities?</li> <li><input type="checkbox"/> Is restoration proceeding for social infrastructure and services?</li> <li><input type="checkbox"/> Are the PAFs able to access schools, health services, cultural sites and activities at the level of accessibility prior to resettlement?</li> <li><input type="checkbox"/> Are income and livelihood restoration activities being implemented as set out in income restoration Plan? For example utilizing replacement land, commencement of production, numbers of PAFs trained and provided with jobs, micro-credit disbursed, number of income generating activities assisted?</li> <li><input type="checkbox"/> Have affected businesses received entitlements including transfer and payments for net losses resulting from lost business and stoppage of production?</li> </ul>
3. Public Participation and Consultation	<ul style="list-style-type: none"> <li><input type="checkbox"/> Have consultations taken place as scheduled including meetings, groups, and community activities? Have appropriate resettlement leaflets been prepared and distributed?</li> <li><input type="checkbox"/> How many PAFs know their entitlements? How many know if they have been received?</li> <li><input type="checkbox"/> Have any PAFs used the grievance redress procedures? What were the outcomes?</li> <li><input type="checkbox"/> Have conflicts been resolved?</li> <li><input type="checkbox"/> Was the social preparation phase implemented?</li> <li><input type="checkbox"/> Were separate consultation done for indigenous peoples?</li> <li><input type="checkbox"/> How was the participation of IP women and children</li> <li><input type="checkbox"/> Were they adequately represented</li> <li><input type="checkbox"/> Were special measures for indigenous peoples implemented?</li> </ul>
4. Benefit Monitoring	<ul style="list-style-type: none"> <li><input type="checkbox"/> What changes have occurred in patterns of occupation, production and resources use compared to the pre-project situation?</li> <li><input type="checkbox"/> What changes have occurred in income and expenditure patterns compared to pre-project situation? What have been the changes in cost of living compared to pre-project situation? Have PAFs' incomes kept pace with these changes?</li> <li><input type="checkbox"/> What changes have taken place in key social and cultural parameters relating to living standards?</li> <li><input type="checkbox"/> What changes have occurred for vulnerable groups?</li> <li><input type="checkbox"/> Has the situation of ICCs/IPs improved, or at least maintained, as a result of the project?</li> <li><input type="checkbox"/> Are IP women reaping the same benefits as IP men?</li> <li><input type="checkbox"/> Are negative impacts proportionally by IP men and women?</li> </ul>

Source: LARRP Policy, DPWH (2007)

**Table 7.3-2 External Monitoring Indicators**

Monitoring Indicators	Basis for Indicators
1. Basic information on PAP households	<ul style="list-style-type: none"> <li><input type="checkbox"/> Location</li> <li><input type="checkbox"/> Composition and structures, ages, education and skill levels</li> <li><input type="checkbox"/> Gender of household head</li> <li><input type="checkbox"/> Ethnic group</li> <li><input type="checkbox"/> Access to health, education, utilities and other social services</li> <li><input type="checkbox"/> Housing type</li> <li><input type="checkbox"/> Land use and other resource ownership patterns</li> <li><input type="checkbox"/> Occupation and employment patterns</li> <li><input type="checkbox"/> Income sources and levels</li> <li><input type="checkbox"/> Agricultural production data (for rural households)</li> <li><input type="checkbox"/> Participation in neighborhood or community groups</li> <li><input type="checkbox"/> Access to cultural sites and events</li> <li><input type="checkbox"/> Value of all assets forming entitlements and resettlement entitlements</li> </ul>
2. Restoration of living standards	<ul style="list-style-type: none"> <li><input type="checkbox"/> Were house compensation payments made free of depreciation, fees or transfer costs to the PPAP?</li> <li><input type="checkbox"/> Have PAFs adopted the housing options developed?</li> <li><input type="checkbox"/> Have perceptions of “community” been restored</li> <li><input type="checkbox"/> Have PAFs achieved replacement of key social cultural elements?</li> </ul>
3. Restoration of Livelihoods	<ul style="list-style-type: none"> <li><input type="checkbox"/> Were compensation payments free of deduction for depreciation, fees or transfer costs to the PPAP?</li> <li><input type="checkbox"/> Were compensation payments sufficient to replace lost assets?</li> <li><input type="checkbox"/> Was sufficient replacement land available of suitable standard?</li> <li><input type="checkbox"/> Did transfer and relocation payments cover these costs?</li> <li><input type="checkbox"/> Did income substitution allow for re-establishment of enterprises and production?</li> <li><input type="checkbox"/> Have enterprises affected received sufficient assistance to re-establish themselves?</li> <li><input type="checkbox"/> Have vulnerable groups been provided income-earning opportunities? Are these effective and sustainable?</li> <li><input type="checkbox"/> Do jobs provided restore pre-project income levels and living standards?</li> </ul>
4. Levels of PAP Satisfaction	<ul style="list-style-type: none"> <li><input type="checkbox"/> How much do AFs know about resettlement procedures and entitlements? Do PAFs know their entitlements?</li> <li><input type="checkbox"/> Do they know if these have been met?</li> <li><input type="checkbox"/> How do PAFs assess the extent to which their own living standards and livelihood been restored?</li> <li><input type="checkbox"/> How much do PAFs know about grievance procedures and conflict resolution procedures? How satisfied are those who have used said mechanisms.</li> </ul>
5. Effectiveness of Resettlement Planning	<ul style="list-style-type: none"> <li><input type="checkbox"/> Were the PAFs and their assets correctly enumerated?</li> <li><input type="checkbox"/> Was any land speculators assisted?</li> <li><input type="checkbox"/> Was the time frame and budget sufficient to meet objectives?</li> <li><input type="checkbox"/> Were entitlements too generous?</li> <li><input type="checkbox"/> Were vulnerable groups identified and assisted?</li> <li><input type="checkbox"/> How did resettlement implementers deal with unforeseen problems?</li> </ul>
6. Other Impacts	<ul style="list-style-type: none"> <li><input type="checkbox"/> Were there unintended environmental impacts?</li> <li><input type="checkbox"/> Were there unintended impacts on employment or incomes?</li> </ul>
7. IP Indicators	<ul style="list-style-type: none"> <li><input type="checkbox"/> Are special measures to protect IP culture, tradition resources rights, and resources in place?</li> <li><input type="checkbox"/> How are these being implemented?</li> <li><input type="checkbox"/> Are complaints and grievances of affected IPs/ICCs being documented?</li> <li><input type="checkbox"/> Are these being addressed?</li> <li><input type="checkbox"/> Did the project proponent respect customary law in dispute resolution process, in the conduct of public consultation, in IPAP and MOA implementation?</li> </ul>

Source: LARRP Policy, DPWH (2007)

#### 7.4 Analysis of Gaps between Current Relevant Regulations in the Philippines and JICA Guidelines for Environmental and Social Considerations (April, 2010) as well as Safeguard Policies in the World Bank

Appendix 7-1 shows the gaps between current relevant regulations in the Philippines and JICA Guidelines for Environmental and Social Considerations (April, 2010) as well as Safeguard Policies in the World Bank. The Philippines has not had a enough legal framework about this issues. On the other hand, the DPWH has been developing their rules and policies such as LARRIP Policy (2007) in cooperation with WB and ADB. Therefore, there are no significant gaps between the policies of DPWH and JICA Guideline as well as Safeguard Policies in the WB.

## **Chapter 8**

### **Legal Framework and Procedure concerning Considerations of Indigenous People**



## Chapter 8. Legal Framework and Procedure concerning Considerations of Indigenous People

### 8.1 Distribution of Indigenous and Ethnic Minority Groups

Republic Act No. 8371, otherwise known as the Indigenous Peoples Rights Act (IPRA) enacted in 1997, defines indigenous peoples (IPs) or indigenous cultural communities (ICCs) as:

“A group of people of homogenous societies identified by self ascription and ascription by others, who have continuously lived as organized community on communally bounded and defined territory, and who have, under claims of ownership since time immemorial, occupied, possessed and utilized such territories, sharing common bonds of language, customs, traditions and other distinctive cultural traits, or who have, through resistance to political, social and cultural inroads of colonization, non-indigenous religions and cultures, become historically differentiated from the majority of Filipinos (Chapter II, Section3-h).”

There is no reliable census on the population of indigenous peoples in the Philippines. The National Commission on Indigenous Peoples (NCIP) in March 2011 stated that the total population of the indigenous peoples is 14,183,809. Of these, Mindanao has the highest concentration of 62.6%, followed by Luzon with 35.9% and Visayas 1.4% (Table 8.1-1). Obviously, NCIP itself does not have exact number of indigenous peoples. As the NCIP estimates were based on an unofficial count, the indigenous population might even exceed 20% of the national population.

**Table 8.1-1 Distribution of IP Ethnic Groups by Region (As of March 2011)**

Region	Number of IPs	%
Luzon	5,094,220	35.9
CAR	1,470,700	10.4
R-1	1,206,798	8.5
R-2	1,030,179	7.3
R-3	236,487	1.7
R-4	936,745	6.6
R-5	213,311	1.5
Visayas	203,912	1.4
R-6	168,145	1.2
R-7	35,767	0.3
Mindanao	8,885,677	62.6
R-9	1,203,598	8.5
R-10	1,801,739	12.7
R-11	2,289,268	16.1
R-12	1,856,268	13.1
R-13	1,004,750	7.1
ARMM	730,054	5.1
Total	14,183,809	100.0

Source: Information and Research Division, Office on Policy Planning and Research, NCIP (March 2011)

**Table 8.1-2 110 Ethnolinguistic Group (As of March 2011)**

1	Abelling/Aborlin	38	Dumagat	75	Mabaca
2	Abiyan	39	Eskaya	76	Malaueg
3	Adesen	40	Gaddang	77	Magahat/Corolanos
4	Aeta	41	Giangan	78	Manobo
5	Agta	42	Gubang	79	Manobo-Blit
6	Agta-Cimaron	43	Gubanon (Mangyan)	80	Manguangan
7	Agta-Tabangnon	44	Guiangan-Clata	81	Mamanwa
8	Agutayon	45	Hanunuo (Mangyan)	82	Mansaka
9	Alangan (Mangyan)	46	Hanglulo	83	Matisalog
10	Applai	47	Higaonon	84	Mandaya
11	ata-Matisalog	48	Itneg	85	Molbog
12	Ati	49	Inlaud	86	Pullon
13	Arumanen	50	Inbaloi	87	Palawanon
14	Ayangan	51	Ibanag	88	Remontado
15	Binongan	52	Itwanes	89	Ratagnon (Mangyan)
16	Bago	53	Ikalahan	90	Sulod
17	Bangon (Mangyan)	54	Ilianen	91	Sama (Badjao)
18	Bontok	55	Isinai	92	Sama/Samal
19	Balatoc	56	Isneg/Apayao	93	Sama/Kalibugan
20	Baliwen	57	Iwak	94	Subanen
21	Bulaga	58	Iraya (Mangyan)	95	Sangil
22	Batak	59	Itnom	96	Tadyawan (Mangyan)
23	Batangan/Tao Buid	60	Ilongot/Bungkalot	97	Tagabawa
24	Buhid (mangyan)	61	Ivatan	98	Tagbanwa
25	Balangao	62	Kirintenken	99	Tagakaolo
26	Bantoanon	63	Kalinga	100	Talaandig
27	Bukidnon	64	Kankanaey	101	Talaingod
28	Badjao	65	Kalanguya	102	T'Boli
29	Banac	66	Kalibugan	103	Tao't Bato
30	B'laan	67	Kabihug	104	Tasaday
31	Bagobo	68	Kalagan	105	Tigwayanon
32	Bunwaon	69	Karao	106	Tingguian
33	Calinga	70	Kaylawan	107	Tiruray/Tenduray
34	Camiguin	71	Kongking	108	Tuwali
35	Coyonon	72	Langilan	109	Ubo
36	Danao	73	Masadiit	110	Umayamnon
37	Dibabawon	74	Maeng		

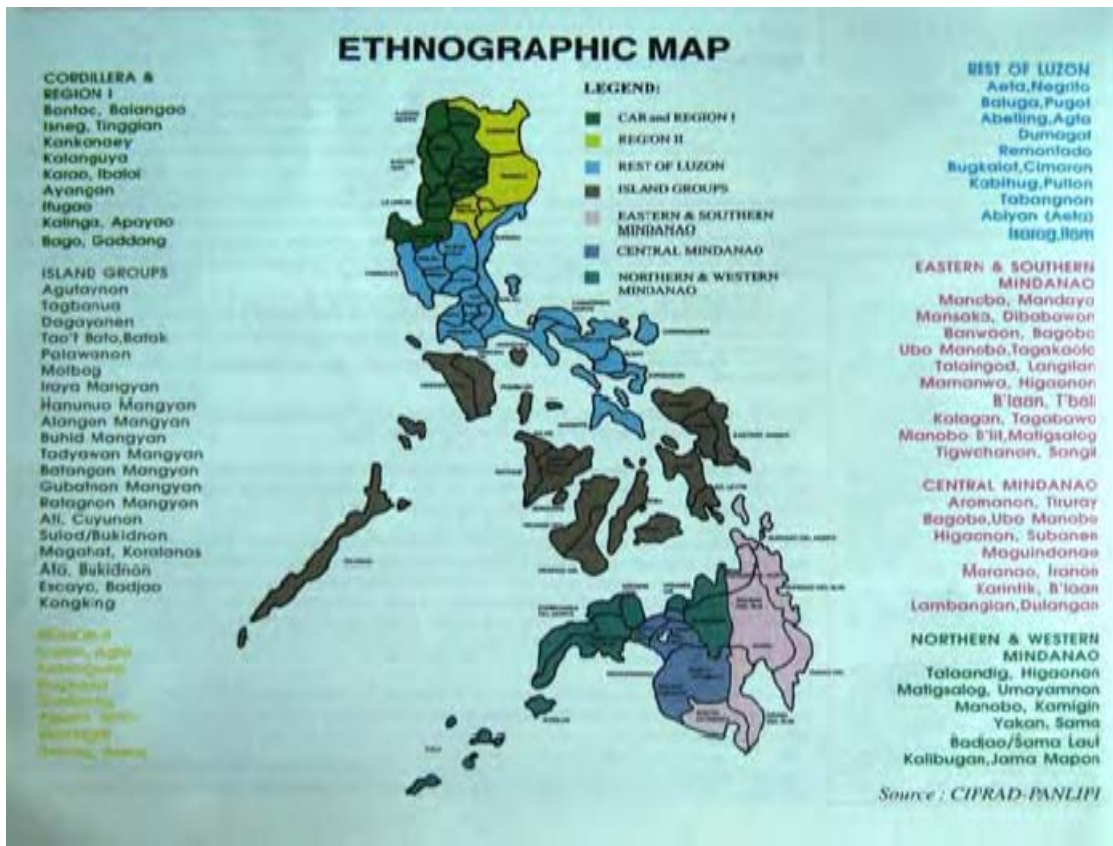
Source: Information and Research Division, Office on Policy Planning and Research, NCIP (March 2011)

The NCIP has classified the indigenous communities into 110 ethno-linguistic groups or tribes who live in the various parts of the archipelago as shown in the Table 8.1-2. Seven ethnographic regions, not political subdivisions, were identified under the IPRA as shown below and Figure 8.1-3.

**Table 8.1-3 Seven Ethnographic Regions and its Features**

<b>Ethnographic Regions</b>	<b>Region included</b>	<b>Features</b>
1. Region I and CAR	Region I CAR	The indigenous peoples are concentrated in the northern mountain ranges of the Cordillera occupying the interior hills, narrow strips of flat land along deep valleys, and plateaus. In the watershed areas there are swidden cultivators who depend on farming rice, root, crops and vegetables. Along the slopes of Mount Data and nearby areas, there are wet-rice cultivators who grow their crops both on terraces and swidden fields.
2. Region II	Region II	Several lowland indigenous groups inhabit the Cagayan valley of northeastern Luzon. Some groups continue to carry out wet-rice agriculture, swidden farming, hunting and gathering, and some commerce.
3. The rest of Luzon	Regions III, Region IV (Part) Region V	Several groups are living along the area of the Sierra Madre range of eastern Luzon, northwestern part of Pampanga and the southwestern area of Tarlac, and along the Pacific coast in the province of Quezon, Polillo Island, and the Bicol peninsula. Most people have depended on cultivation, fishing and gathering.
4. Island groups	Regions IV (Part) Region VI Region VII Region VIII	There are several kinds of groups living in the island of Mindoro, in the interior foothills and remote coastal areas of Panay, Negros Islands and northern and central areas of Palawan island. Generally most groups practice swidden agriculture, combined with hunting, fishing, gathering, and trade.
5. Northern and Western Mindanao	Regions IX (Zamboanga Peninsula) Region X (Northern Mindanao)	The Subanen, the largest population of indigenous groups, live along the hinterlands and coastal lowlands of the Zamboanga peninsula. The uplands of northern Mindanao, particularly on the plateaus of Bukidnon, are the indigenous peoples who call themselves Higaonon meaning "mountain dwellers."
6. Southern and Eastern Mindanao	Regions XI (Davao Region) Region XIII (CARAGA)	Several groups live in the upper headwaters of the Davao, Timanan and Kulaman rivers, in the coastal areas along Davao Gulf and interior hinterlands of southeastern Mindanao. For the most part, the indigenous peoples basically subsist through swidden and wetrice cultivation, hunting, fishing, gathering, and the trade of locally manufactured items.
7. Central Mindanao	Region XII (SOCCSKSARGEN)	Majority is Manobo within the highlands of central Mindanao,

Source: Indigenous Peoples/Ethnic Minorities and Poverty Reduction Philippines, ADB (2002)



Source: Coalition for Indigenous Peoples' Rights and Ancestral Domains (CIPRAD), 1999. Guide to R.A. 8371: Indigenous Peoples Rights Act of 1997. International Labor Organization and Balance, Asia Department

**Figure 8.1-1 Ethnographic Map of the Philippines**

## 8.2 Social and Economic Condition of Indigenous and Ethnic Minority Groups

The lack of disaggregated data on indigenous peoples makes it difficult to posit a relationship between ethnicity and socio-economic indicators of well-being at the national level.

However there are several reports that the Indigenous Peoples are among the poorest and the most disadvantaged social group in the Philippines. Illiteracy, unemployment and incidence of poverty are much higher among them than the rest of the population. In general, their settlements are remote, without access to basic services, and are characterized by a high incidence of morbidity, mortality and malnutrition.

Most of the Indigenous Peoples depend on traditional swidden agriculture utilizing available upland areas. However, most of these traditional cultivation sites and fallow areas have now been degraded and are further threatened by the influx of migrant farmers who have introduced unsustainable lowland commercial farming practices. The access of local communities and Indigenous groups over land, seas and natural resources have gradually decreased and become limited while control over the same have been partially or completely been transferred to non-traditional resource managers led by the state and at times private individuals and entities.

## 8.3 Relevant Regulations concerning Considerations of Indigenous Groups

### 8.3.1 Relevant Regulations

#### **The Philippine Constitution of 1987 (1987)**

There are four important sections in the Philippine Constitution that pertain to the State's recognition of the rights of IPs/ICCs, namely:

- The State recognizes and promotes the rights of ICCs within the framework of national unity and development (Section 22, Article II);
- The State, subject to the provisions of this Constitution and national development policies and programs, shall protect the rights of ICCs to their ancestral lands to ensure their economic, social and cultural well-being (Section 5, Article XII);
- The State shall apply the principles of agrarian reform or stewardship, whenever applicable in accordance with law, in the disposition or utilization of other natural resources, including lands of the public domain under lease or concession suitable to agriculture, subject to prior rights, homestead rights of small settlers, and the rights of ICCs to their ancestral lands (Section 6, Article XIII); and
- The State shall recognize, respect and protect the rights of ICCs to preserve and develop their cultures, traditions and institutions. It shall consider these rights in the formulation of national plans and policies (Section 17, Article XIV).

#### **Republic Act No.8371 (1997): Indigenous Peoples Rights Act (IPRA)**

RA No. 8371 or the Indigenous Peoples Right Act (IPRA) enacted in 1997 is the most important legal framework for the protection of the IPs in the Philippines. Under this law, the following basic principals related to the policy of ICCs/IPs are stipulated;

- Rights of ICCs/IPs, Responsibility of the State  
The State shall recognize and promote the rights of ICCs/IPs within the framework of national unity and development and guarantee the following rights;
  - a) Rights to Ancestral Domains/Ancestral Lands
  - b) Rights to Self-Governance and Empowerment
  - c) Social Justice and Human Rights
  - d) Cultural Integrity
- Establishment of the National Commission on Indigenous People (NCIP)  
NCIP shall be established as the primary government agency responsible for the formulation and implementation of policies, plans and programs to promote and protect the rights and well-being of IPs

#### **CADT and CALT**

With the passage of IPRA in 1997, the law recognized the rights of Indigenous peoples over their ancestral domains and provided for a process of titling of lands through the issuance of Certificates of Ancestral Domain Titles (CADT) or Certificate of Ancestral Land Title (CALT). On its 13<sup>th</sup> year of implementing the IPRA, the NCIP lists as a major accomplishment the issuance of 156 CADTs covering 4,259,331hectares and 258 CALTs covering 17,307hectares.<sup>32</sup>. The total rights holders

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<sup>32</sup> NCIP Accomplishments as of December 2010, Office of Policy Planning and Research, NCIP

became around 92 million people but it covered only 6.5% of total Indigenous People.

#### **NCIP Administrative Order No.1, series of 1998 (1998)**

The NCIP AO No.1 (1998) outlines the implementing rules and regulations (IRR) of the IPRA.

#### **NCIP Administrative Order No. 1, series of 2004 (2004)**

The NCIP AO No.1 (2004) outlines the step-by-step procedures in the formulation of Ancestral Domain Sustainable Development and Protection Plans (ADSDPPs), which embodies the goals and objectives as well as policies and strategies of the IPs for the sustainable management and development of their ancestral domain and all resources therein, including the human and cultural resources, such as their indigenous knowledge systems and practices. The ADSDPP also contains the list and schedule of programs and projects toward the sustainable development and protection of ancestral domains as a tool for IP empowerment and as a blueprint of the IPs' total development plan.

#### **NCIP Administrative Order No. 1, series of 2006 (2006)**

The NCIP AO No.1 (2006) is the Free, Prior and Informed Consent (FPIC) Guidelines that spells out the procedure for obtaining FPIC from affected communities. It details the process for conducting Field Based Investigation (FBI) and obtaining the Certification Precondition from the NCIP attesting that the applicant has complied with the requirements for securing the affected IPs' FPIC. It also provides the procedure for validating projects solicited/initiated by the IPs.

### **8.3.2 Relevant Organizations**

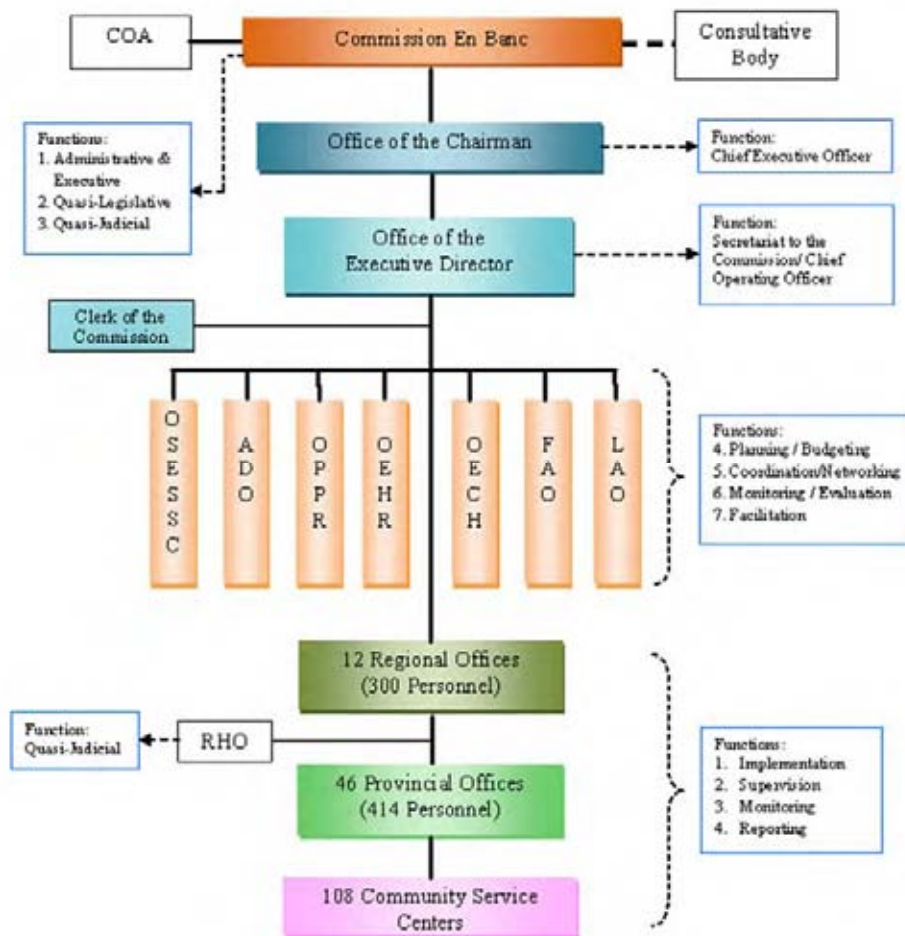
The National Commission on Indigenous Peoples (NCIP) was created in 1997 as the primary government agency responsible for the formulation and implementation of policies, plans and programs to promote and protect the rights and well-being of IPs and the recognition of their ancestral domains. Under the Executive Order No.726 (May 2008), the NCIP was put under the DENR.

Main functions of NCIP are as follows;

- To delineate and recognize of ancestral domains
- To issue Certificate of Ancestral Land/Domain Title (CALT, CADT)
- To sustain development of ancestral land/domain, and to implement the Ancestral Domain Sustainable Development Protection Plan (ADSDPP)
- To resolute conflicts based on customary process

The NCIP is composed of seven (7) Commissioners belonging to ICCs/IPs, one (1) of whom shall be the Chairperson. The Commissioners shall be appointed by the President of the Philippines from a list of recommenders submitted by authentic ICCs/ IPs: At least two (2) of the seven(7) Commissioners shall be women. (IPRA Law, Chapter 7, Section 40).

The organization chart and function of each office in the NCIP is as follows;



Source: NCIP website (Accessed in April 2011)

**Figure 8.3-1 NCIP Organizational Structure**

**Table 8.3-1 Function of each office in the NCIP**

Office	Main Functions/Responsibilities
Ancestral Domains Office (ADO)	<ul style="list-style-type: none"> <li>- To identify, delineate and recognize ancestral lands/domains</li> <li>- To manage ancestral lands/domains in accordance with a master plan and to implement the ancestral domain rights of the ICCs/IPs</li> <li>- To issue lease or permit for the exploitation of natural resources affecting the interests of ICCs/IPs or their ancestral domains and to assist the ICCs/IPs in protecting the territorial integrity of all ancestral domains.</li> </ul>
Office on Policy, Planning and Research (OPPR)	<ul style="list-style-type: none"> <li>- To formulate appropriate policies and programs for ICCs/IPs, such as the development of a Five-Year Master Plan for the ICCs/IPs</li> <li>- To undertake the documentation of customary law</li> <li>- To establish and maintain a research center for monitoring, evaluation and policy formulation</li> </ul>
Office on Education, Culture and Health (OECH)	<ul style="list-style-type: none"> <li>- To implement the education, cultural and rented rights</li> <li>- To promote and support community schools, both formal and non-formal</li> <li>- To assist ICCs/IPs to enroll in schools of medicine, nursing, physical therapy and other allied courses pertaining to the health profession</li> </ul>

Office	Main Functions/Responsibilities
Office on Socio-Economic and Special Concerns (OSESSC)	- To serve as the Office through which the NCIP shall coordinate with pertinent government agencies specially charged with the implementation of various basic socio-economic services, policies, plans and programs
Office of Empowerment and Human Rights (OEHR)	<ul style="list-style-type: none"> <li>- To ensure that indigenous sociopolitical, cultural and economic rights are respected and recognized</li> <li>- To ensure that capacity building mechanisms are instituted and ICCs/IPs are afforded every opportunity</li> <li>- To ensure that the basic human rights , and such other rights as the NCIP may determine, subject to existing laws, rules and regulations, are protected and promoted</li> </ul>
Finance and Administrative Office (FAO)	<ul style="list-style-type: none"> <li>- To provide the NCIP with economical, efficient and effective services pertaining to personnel, finance, records, equipment, security, supplies and related services</li> <li>- To administer the Ancestral Domains Fund</li> </ul>
Legal Affairs Office (LAO)	<ul style="list-style-type: none"> <li>- To advise the NCIP on all legal matters concerning ICCs/IPs</li> <li>- To conduct preliminary investigation on the basis of complaints filed by the ICCs/IPs against a natural or juridical person believed to have violated ICCs/IPs rights, and to initiate the filing of appropriate legal or administrative action to the NCIP.</li> </ul>

Source: IPRA (Chapter VII, Section 46) and NCIP website (Accessed in April 2011)

#### 8.4 Procedure concerning Consideration of Indigenous Groups at Development Projects

Development interventions in the Philippines which overlap with the territories of ICCs/IPs are required by law to obtain consent from the concerned ICCs/IPs through the process of Free and Prior Informed Consent (FPIC) administered by the NCIP. The FPIC process stipulated in the NCIP Administrative Order No.1 series of 2006 (FPIC Guideline) is the main safeguard mechanism for the protection of ICCs/IPs in programs and projects that fall within the Ancestral Lands/Domains.

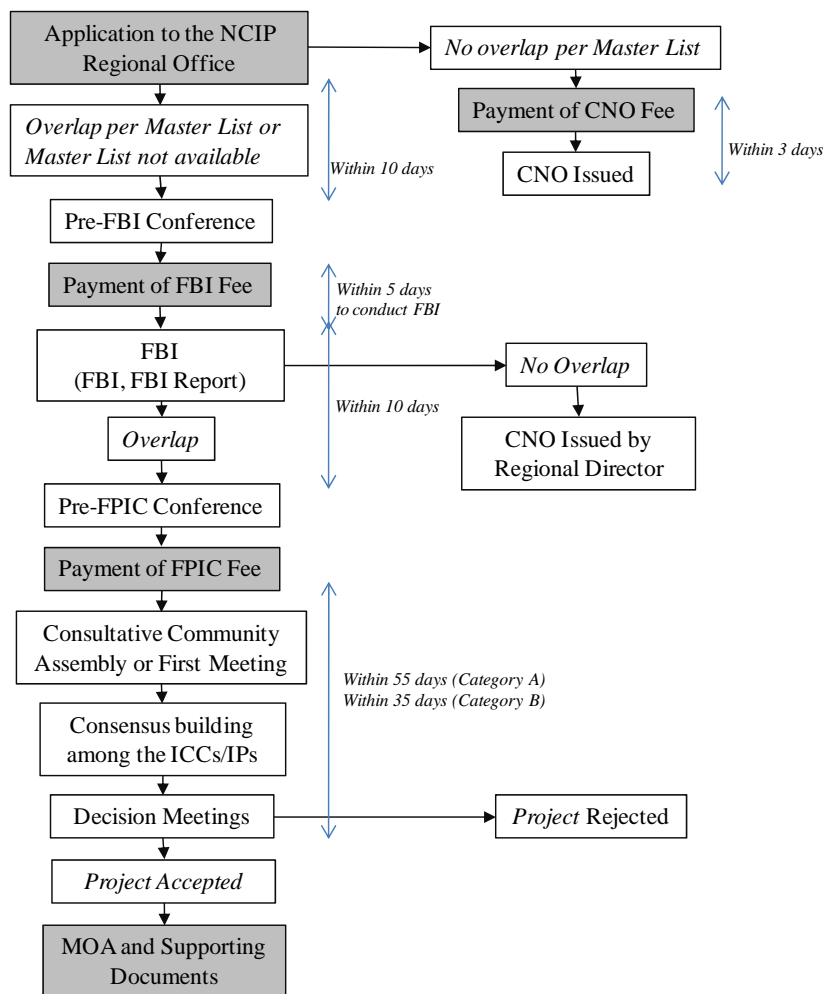
Under the IRPA, the Free and Prior Informed Consent (FPIC) is defined as follows:

“The consensus of all members of the ICCs/IPs to be determined in accordance with their respective customary laws and practices free from any external manipulation, interference coercion, and obtained after fully disclosing the intent and scope of the activity, in a language and process understandable to the community”

The FPIC is given by the concerned ICCs/IPs upon the signing of the Memorandum of Agreement (MOA) containing the conditions/requirements, benefits as well as penalties of agreeing parties as basis for the consent. By law, IP have the right to accept or reject certain development interventions in their particular communities.

##### 8.4.1 Procedure concerning Considerations of Indigenous Groups (Procedure for FPIC)

The following figure shows the procedure for FPIC.



Note: FBI – Field-Based Investigation, CNO – Certificate of non-Overlap issued by Regional Director, MOA – Memorandum of Agreement, Source: NCIP Administrative Order No. 1, series of 2006

**Figure 8.4-1 FPIC Process Flowchart**

## A. Field Based Investigation

### (1) Screening

All development-oriented projects whose project types are included in the Table 8.4-1 (not related to the area) in the Philippines are required to check with the NCIP whether their project site has ICCs or IP present or is covered by an ancestral domain, or land applied for as domain by an ICCs. The Proponent shall submit i) the project profile which include applicant profile, nature and purpose of project, location map and its impact area and the duration of the project, ii) operation plan and project activities, and iii) other relevant data/documents to the NCIP Regional Office. In case the application/ project covers two or more regions, the concerned government agency shall endorse the same to the Director of the Ancestral Domains Office (ADO) who shall decide which Regional Office shall take the lead in facilitating the appropriate and applicable process.

(2) Pre-FBI Conference

In case there is no impact area by determining with the Master List of Ancestral Domain Areas if available, the concerned Regional Director shall issue to the applicant a Certificate of Non-Overlap (CNO). Otherwise, the Regional Director shall immediately cause the Provincial Officer concerned to hold a Pre-FBI Conference. The Regional Director shall forthwith notify: a) the applicant that the Pre-FBI Conference will be conducted at the Provincial Office at a specified date; and b) the Provincial Officer concerned that the Pre-FBI Conference will be conducted at the Provincial Office at a specified date. For Service Centers in Provinces without Provincial Offices, the Pre-FBI conference shall be held at the Service Center concerned. The Pre-FBI Conference shall be held within a period of ten (10) days from receipt of the application or the endorsement. In the Conference, the following matters are to be taken up among the participants: i) Introduction and orientation on the requirements of the FBI process, ii) Introduction of the applicant, proof of legal capacity and the proposed project, iii) Initial determination and approximation of the area affected, and v) agreement on the cost of the FBI.

(3) Payment of FBI Fee

If no overlap is noted based on the duly approved Master list of Ancestral Domain Areas, the applicant shall only pay a Certification Fee of Five Hundred Pesos (Php 500.00). If an FBI is necessary in order to determine whether the plan/program/project/activity affects an ancestral domain, the applicant shall shoulder the agreed cost of the FBI, the amount of which shall be determined during the Pre-FBI Conference, to the trust account that each provincial office and service center shall be established.

(4) Field Based Investigation

The FBI Team shall commence the FBI after five (5) days from payment of the FBI fee in order to determine the impact area applied to plans/programs/projects/activities. The Provincial Officer or Service Center Head shall immediately notify the ancestral domain representatives of the commencement of the FBI. Except when otherwise agreed upon, the FBI period is ten (10) days. The FBI team shall submit the FBI report to the concerned Provincial Officer or Service Center Head, shall then immediately notify the Regional Director.

In case there is no impact area, the concerned Regional Director shall issue to the applicant a Certificate of Non-Overlap (CNO).

(5) Pre-FPIC

The 10<sup>th</sup> day of the FBI is the pre-designated date to hold the Pre-FPIC Conference, where the several issues shall be accomplished, such as:

- Briefing on the project and the results of the FBI
- Briefing on FPIC process, protocols and prohibited acts,
- Subsequent submission by the applicant of an undertaking, written in a language spoken and understood by the community concerned, that it shall commit itself to full disclosure of records and information relevant to the plan, program, project or activity, that would allow

the community full access to records, documents, material information and facilities pertinent to the same;

- Subsequent submission by the applicant of an Environmental and Socio-cultural Impact Statement, detailing all the possible impact of the plan, program, project or activity upon the ecological, economic, social and cultural aspect of the community as a whole. Such document shall clearly indicate how adverse effects may be avoided, mitigated and/or addressed; and

**B. Conduct of FPIC**

The FPIC process will depend on the nature and extent of the proposed plan, project, program or activity sought to be introduced into any ancestral domain area. There are two categories that depend on the size, contents, area of the plan/program/project/activity.as shown in the Table 8.4-1.

**Table 8.4-1 Covered Plan/Program/Project/Activity for FPIC**

<b>Plan/Program/Project/Activity for FPIC</b>	
<b>A</b>	The following plans, projects, programs or activities shall undergo the FPIC process prescribed in Section 26 of this Guidelines
1	Large-Scale development, exploitation and utilization of land, water, air, and other natural resources within ancestral domains/lands
2	Exploration of mineral and energy resources within ancestral domains
3	Programs, projects and activities that may lead to the displacement and/or relocation of indigenous peoples
4	Resettlement programs or projects by the government or any of its instrumentalities that may introduce migrants into ancestral domains whether permanent or temporary;
5	Management of protected and environmentally critical areas, and other related joint undertakings within ancestral domains
6	Bio prospecting activities
7	Industrial land use including the establishment of economic zones
8	Large scale tourism projects
9	Large scale agricultural and forestry management projects
10	Other activities similar or analogous to the foregoing
<b>B</b>	Except those covered in the immediately preceding paragraph, the following shall be governed by the FPIC process prescribed in Section 27 of this Guidelines
1	Small-scale exploitation and utilization of land, water and natural resources within ancestral domains/lands as defined under existing laws, rules and regulations of governing or regulating agencies
2	Commercial research undertaken by government, private persons, or corporations or foreign entities for the purposes intended directly or indirectly for commercial use, such as: publication, documentation, paid lectures, among others
3	Unsolicited government projects for the delivery of socio-economic services and development including projects of charitable institutions, and civic or non-government organizations, the direct and primary beneficiary of which are ICCs/IPs who own the ancestral domain, except when the same are formally coordinated with NCIP or as co-implementor in connection with the latter's programs, projects or activities in which case, no FBI/FPIC is necessary: Provided, That the said programs or projects are validated by the NCIP to be acceptable to the intended ICC/IP beneficiaries, either because the same conform with the community's ADSDPP or shall become part thereof in the future. If the owner-ICCs/IPs are not the primary beneficiaries of the aforementioned programs or projects, compliance with the FBI/FPIC process shall be required

<b>Plan/Program/Project/Activity for FPIC</b>	
4	Activities that would affect their spiritual and religious traditions, customs and ceremonies, including ceremonial objects or access to religious and cultural sites, archaeological explorations, diggings, and excavations unless the council of elders/leaders require the conduct of the FPIC process prescribed under Section 26
5	Programs/projects/activities not requiring permits from government agencies
6	Feasibility studies for any program, project, activity or undertaking relative to any of those enumerated in Section 6 (A)
7	Occupation of military or organizing para-military forces, establishment of temporary or permanent military facilities, or military exercises within the domains, except when requested by concerned elders/leaders in writing. Military operations within ancestral domain areas when made in connection with hot pursuit operations, securing vital government installations, programs and projects against clear and imminent danger, shall not require FPIC. The cessation of hostilities and the presence or absence of clear and imminent danger shall be determined by the elders/leaders who may notify in writing the occupying military/armed force to vacate the ancestral domain
8	Such other activities analogous to the foregoing nature

Source: NCIP Administrative Order No. 1, series of 2006

When the area affected covers one ancestral domain, the consent of the concerned ICCs/IPs within the ancestral domain shall be secured. On the other hand, when the area affected covers two or more ancestral domains, the ICCs/IPs in each domain shall be separately involved in the FPIC process.

(1) Establishment of the FPIC Team

The FPIC Team shall be established by the Regional Director, composed of not more than six (6) members designated by the Regional Director from the Provincial and/or Service Center personnel which must include, whenever feasible, the Provincial Legal Officer, one (1) Engineer from the provincial or regional office, and at least one (1) member of the FBI Team.

(2) Conduct of FPIC

The period for the conduct of the FPIC mandatory activities categorized A shall not exceed fifty-five (55) days. The period for the conduct of the FPIC mandatory activities categorized B shall not exceed thirty-five (35) days. Both periods shall commence on the date that the FPIC fee is paid in cash or deposited by the applicant in the NCIP Provincial Trust Account (PTA) and is made available to the Team.

Mandatory Activities for plan/program/project/activity categorized A

i) Conduct of Consultative Community Assembly (CCA)

The FPIC Team shall cause the posting of notices in conspicuous places in and around the concerned ICCs/IPs community for a Consultative Community Assembly (CCA). The participants to the CCA are the elders or leaders, the representatives of IP households/families within the area affected, the representatives from the applicant, the FPIC Team, the representatives from accredited NGOs by the NCIP if there are any. The applicant will present the operation plan and the scope and extent of the proposal, cost and benefits of the proposal to the ICC/IP and their ancestral domains, perceived disadvantages or adverse effects to the community and the measures adopted by the applicant to mitigate these effects to the elders/leaders for understanding.

During the CCA, NCIP shall facilitate the convening of the elders/leaders coming from the

affected area to validate the authenticity and legitimacy of the elders/leaders as appearing in the list, except in ancestral domain areas where the elders/leaders are already identified and recognized by the NCIP.

ii) Consensus-Building and Freedom Period

After the termination of the CCA, the community, led by their Elders/Leaders, shall proceed to consult among themselves, employing their own traditional consensus-building processes in order to further discern the merits and demerits of the proposal as presented in the CCA and to arrive at a consensus. Except for NCIP representatives who shall document the proceedings, non-members of the IP community are strictly enjoined from interfering with the consensus-building processes of the community.

iii) Decision Meeting

In the Decision Meeting of the applicant and the elders/leaders facilitated by the FPIC Team, the elders/leaders will formally convey to the applicant the decision of the community members affected by the project as a result of the consensus-building process. If the consensus is favorable, the parties shall proceed to finalize the terms and conditions of the Memorandum of Agreement (MOA). If the consensus is against the project, the leaders or elders will be required to submit their written decision in the form of a Resolution. Further, the applicant may ask the elders/leaders to explain the decision. If the reasons for the denial of the consent is something that the applicant can readily address or a counter-proposal or new proposal is made by the applicant, the elders/leaders may require another period, if they so desire, to reconsider their decision within fifteen (15) days beyond the 55-day period.

Mandatory Activities for plan/program/project/activity categorized B

i) First Meeting

The FPIC team shall call for the First Meeting between the IP elders/leaders and the applicant. In the First Meeting facilitated by the FPIC team, the applicant will present the operation plan and the scope and extent of the proposal to the elders/leaders for understanding and give them the needed information supporting their proposal.

ii) Consensus-Building and Freedom Period

After the termination of the First Meeting, the community, led by their Elders/Leaders, shall proceed to consult among themselves, employing their own traditional consensus-building processes in order to further discern the merits and demerits of the proposal as presented in the CCA and to arrive at a consensus. Except for NCIP representatives who shall document the proceedings, non-members of the IP community are strictly enjoined from interfering with the consensus-building processes of the community.

iii) Decision Meeting

On or before the 20th day from the date of the First Meeting, the council of elder/leaders will hold the Decision Meeting with the applicant. The council of elders/leaders will formally convey their decision to the applicant as a result of their consensus-building process. If the consensus is favorable, the parties shall proceed to finalize the terms and conditions of the

MOA. If the consensus is against the project, the leaders or elders will be required to submit their written decision in the form of a Resolution. Further, the applicant may ask the council of elders/leaders to explain the decision. If the reasons for the denial of the consent is something that the applicant can readily address or a counterproposal or new proposal is made by the applicant, the council of elders/leaders may require another period, if they so desire, to re-consider their decision but in no case shall it exceed ten (10) days from the time of the first decision sought to be reconsidered.

(3) Submission of Report

A report of the FPIC process shall be prepared and submitted by the FPIC Team to the Regional Director. Within two (2) days from receipt, the Regional Director shall direct the Regional Review Team (RRT) to evaluate the same within five (5) days after which, he/she shall notify the applicant in writing of the result.

**C. Memorandum of Agreement**

When the consent of the concerned community is obtained, the terms and conditions thereof shall be embodied in a Memorandum of Agreement (MOA) to be executed between and among the ICC/IPs, the applicant and the NCIP and any other party that may be necessarily involved. The MOA shall be prepared by the FPIC Team. The first draft shall immediately be translated into the language or dialect understood by the ICCs/IPs concerned. The Provincial Officer or Service Center Head shall call the elders/leaders as well as the applicant, the Legal Officer and the RRT to a meeting to verify the contents of the MOA. If the contents of the MOA are affirmed, those previously authorized to sign in behalf of the community shall affix their signature/thumb-mark. The MOA shall stipulate among others, the following:

- a) The detailed premises of the agreement;
- b) All parties involved;
- c) Inclusive dates/duration of agreement;
- d) Other than what has already been granted by law, the benefits to be derived by the host ICC/IPs indicating the type of benefits, specific target beneficiaries as to sector and number, the period covered, and other pertinent information that could guide the future monitoring and evaluation of the MOA;
- e) Use of all funds to be received by the host ICC/IP communities, ensuring that a portion of such funds shall be allocated for development projects, social services and/or infrastructures in accordance with their development framework;
- f) Detailed measures to protect IP rights and value systems;
- g) Detailed measures to conserve/protect any affected portion of the ancestral domain critical for watersheds, mangroves, wildlife sanctuaries, forest cover, and the like;
- h) Responsibilities of the applicant as well as the host IP community;
- i) The monitoring and evaluation system of the MOA, to include submission of reports and creation of monitoring teams;
- j) Whether the concerned ICCs/IPs shall require another FPIC to be conducted in case of merger, reorganization, transfer of rights, acquisition by another entity, or joint venture;
- k) Remedies and/or Penalties for non-compliance or violation of the terms and conditions which includes applicability of customary laws and imposition of sanction/s;
- l) Undertaking in writing to answer for damages which the ICCs/IPs may suffer on account of the plan, program, project or activity. If in addition to the undertaking, the community requires the

applicant to deposit a cash bond or post a surety bond to answer for such damages, the amount of the bond shall be equivalent to at least one percent (1%) of the cost investment subject to progressive increase, depending upon the effect of the project. The MOA shall be accompanied by proof of the deposit of a cash bond or surety bond with the NCIP. The surety bond must be secured from a reputable bonding company duly accredited by the Supreme Court and accompanied with an indemnity agreement and acceptable collateral other than a check. The applicant shall certify that the bond shall be in effect until expiration of the plan, project or undertaking

Compared with the Safeguard Policies of the WB, the following two points are missing in the MOA.

- A framework for ensuring free, prior, and informed consultation with the affected Indigenous Peoples' communities during project implementation
- Accessible procedures appropriate to the project to address grievances by the affected Indigenous Peoples' communities arising from project implementation

#### 8.4.2 Actual Situation of Information Disclosure, Public Consultation and Public Participation to Indigenous Groups

##### 8.4.2.1 Information Disclosure, Public Consultation and Public Participation to Indigenous Groups

In the IPRA law, the right to participate in decision-making is regulated as;

ICCs/IPs have the right to participate fully, if they so choose, at all levels of decision making in matters which may affect their rights, lives and destinies through procedures determined by them as well as to maintain and develop their own indigenous political structures. Consequently, the State shall ensure that the ICCs/IPs shall be given mandatory representation in policy-making bodies and other local legislative councils (Chapter IV, Section 16).

The FPIC process is one of the participation process for ICCs/IPs toward decision-making in matters which may affect for their rights. Under the FPIC process, the FPIC applicants are required to present the operation plan and the scope and extent of the proposal, cost and benefits of the proposal to the ICC/IP and their ancestral domains, perceived disadvantages or adverse effects to the community and the measures adopted by the applicant to mitigate these effects to the elders/ leaders and participants from the ICCs/IPs. In addition, the NCIP also requires FPIC applicants to submit an undertaking, written in a language spoken and understood by the community concerned. Based on the information that the applicants are provided, the ICCs/IPs, led by their Elders/Leaders, proceed to consult among themselves, employing their own traditional consensus-building processes. They have right to decide whether the project is going to be conducted or suspended.

##### 8.4.2.2 Actual Situation of Public Participation to Indigenous Groups

In a 2008 survey of FPIC activities in ancestral domains where target respondents are members of council of elders of tribes with the Certificate of Ancestral Lands Title (CALT) and/or the Certificate of Ancestral Domain Title (CADT) in the Philippines, it was revealed that Of the 55 respondents citing extractive activities and intrusion by other sectors in

ancestral domains, almost two-thirds or 69.1% stated that FPICs were not secured prior to the operation of these activities. 14 of mining sites are operating without the IP communities' consent. On the other hand, In cases where FPICs were secured (17 cases), a majority of respondents stated that legitimate tribal leaders participated during the FPIC consultation (94.1%). However, almost one-fourth (23.5%) revealed that the presentations and other related documents were not translated to the local dialect.

Despite the FPIC guideline was revised to make simpler in 2006, there are still many activities/projects that have not obtain any ICCs/IPs' consent in their land, or that FPIC was secured by insufficient process for ICCs/IPs' participation.

**Table 8.4-2 Result of the Survey about the Situation of FPIC**

Activities	Number	Percentage
Activities in the Ancient Domain	55	100%
Activities without the FPIC	38	69%
Mining without FPIC	14	
Logging without FPIC	22	
Activities with FPIC	17	31%
Participation of legitimate tribal leaders	16	
Translation of documents to local dialect	13	
Audio/video documentation	16	
Preliminary consultation by other sectors	7	

Source: Philippine Asset Reform Report Card, PhilDHRRA (May, 2008)

#### 8.4.3 Information Disclosure concerning Consideration of Indigenous Groups

In the IPRA, all official records, documents and papers pertaining to official acts, transactions or decisions, as well as research data used as basis for policy development of the NCIP shall be made accessible to the public by the NCIP. According to the NCIP, anyone who requests to the NCIP can access to these documents.

#### 8.4.4 Relevant Regulations and Procedure of Monitoring, and Disclosure of Monitoring Results

In the FPIC Guideline, relevant agencies including the Provincial Officer, the applicant and the elders/leaders of the ICCs/IPs shall discuss the monitoring and evaluation system of the MOA during consideration and verification of the contents of the MOA, that shall be written in the finalized MOA. However, there are still yet detailed rules for monitoring and disclosure of monitoring results.

NCIP has responsibilities to protect the right of ownership and possession of the ICCs/IPs' ancestral domains, yet the monitoring mechanism in the ancestral domains conducted by the NCIP has not developed.

#### 8.4.5 Mechanisms for Grievance Redress

The FPIC Guideline provides measures for complaints regarding the FPIC process.

- i) Hearing of complaints before application is endorsed to ADO. Prior to the endorsement of the FPIC application to the ADO, or issuance by the Regional Director of the CNO, all complaints involving irregularities in the implementation of the FPIC process, including commission of any of the prohibited acts shall be filed with the concerned Regional Director, copy furnished the FBI/FPIC Team leader. Within ten (10) days from receipt of the complaint, the FBI/FPIC Team shall submit its answer thereto. The complaint shall be resolved by the Regional Director within ten (10) days from receipt of the answer or expiration of the period for filing thereof. The resolution shall address the irregularity or in case of commission of prohibited acts, recommend to the Commission to impose appropriate sanctions.
- ii) Hearing of complaints after application is endorsed to ADO /certification issued. After the FPIC application is endorsed to the ADO, or after the concerned Regional Director issues the CNO, all petitions involving irregularities in the implementation of this Guidelines or those involving the commission of prohibited acts shall be filed with the Commission through the Clerk of the Commission, in nine (9) copies, with the original copy indicated as such, copy furnished the concerned Regional Director. The petition must be verified and accompanied by sworn affidavits of witnesses, other evidence and a certification of non-forum shopping executed in accordance with the requirements of the Rules of Court.
- iii) Any complaint involving the interpretation and implementation of the MOA shall be filed with the appropriate NCIP Regional Hearing Office (RHO) for disposition.

### 8.5 Affirmative Action to Indigenous Groups

IPRA underscores the obligation of the State for “special measures” to guarantee the right of ICCs/IPs to pursue their economic, social and cultural development at their own choice and pace and to ensure that economic opportunities created by the government are extend to them based on freedom of initiative and self-reliance. The Table 8.5-1 shows major affirmative action/special measures to the ICCs/IPs that are stipulated under the IPRA.

**Table 8.5-1 Major Affirmative Action/ Special Measures to the ICCs/IPs**

<b>Field</b>	<b>Major Affirmative Action/Special Measures to the ICCs/IPs</b>
Employment	<ul style="list-style-type: none"> <li>- Government and Private organization shall undertake IPs employment by setting up mechanisms for the recruitment and hiring of IPs in proportion to their population in their areas of operation.</li> <li>- The NCIP shall develop a Jobs and Employment Program for the appropriate training and placement of IPs, whether professionals, skilled or unskilled.</li> </ul>
Basic Social Services	<ul style="list-style-type: none"> <li>- The NCIP shall prepare and conduct a flexible Five Year Master Plan focused on the delivery of basic services in consultation with ICCs/IPs, that includes provision of technical and financial support services for the empowerment of ICCs/IPs.</li> </ul>
IP Women	<ul style="list-style-type: none"> <li>- The NCIP shall prepare and develop programs and projects to ensure that women shall fully participate in community and nation building through;               <ul style="list-style-type: none"> <li>a) Provision of appropriate support for women’s’ groups/ organizations to conduct research and document IP women’s traditional roles</li> </ul> </li> </ul>

Field	Major Affirmative Action/Special Measures to the ICCs/IPs
	b) Development of appropriate programs and projects to respond to gender issues  c) Conduct of women community-based initiated projects aimed at empowering women
Children and Youth	- The NCIP shall ensure to protect the rights of ICC/IP children in collaboration with relevant agencies, such as the Department of Education, Culture and Sports (DECS), the Department of Social Welfare and Development (DSWD) and UNICEF, through; <ul style="list-style-type: none"> <li>a) Production of indigenous education literature about the indigenous culture</li> <li>b) Establishment of appropriate mechanisms in accordance with customary laws, for involving the children and youth in community leadership and decision making and relevant development programs and activities;</li> <li>c) Encourage and support the integration of ICCs/IPs Indigenous knowledge systems and practices (IKSPs) in both formal and non-formal educational systems for the formation of both male and female children and youth;</li> <li>d) Provision of technical training and education and the improvement and strengthening of regional state colleges, universities and technical schools</li> <li>e) Use of IP dialect or language as the medium of instruction in early childhood and primary educational levels.</li> </ul>
Education	- The NCIP shall work with relevant organization such as Department of Education and Culture and Sports (DECS) towards the development of appropriate programs and projects to the following: <ul style="list-style-type: none"> <li>a) The curricula and appropriate teaching materials and resources;</li> <li>b) The equitable distribution, selection and implementation of scholarship programs;</li> <li>c) Appropriate career development;</li> <li>d) Training of teachers for IP communities;</li> <li>e) Construction of school buildings in IP communities;</li> <li>f) Inclusion of IPs resistance to colonization in the academic curricula, in the context of IPs assertion and defense of their freedom, independence and territorial integrity and culture; and</li> <li>g) Establish schools for living traditions and cultural heritage.</li> </ul>

Source: NCIP Administrative Order No1, series of 1998 (1998)

The NCIP on its 13th year of implementing the IPRA of 1997 has reported to have the following accomplishments as IPs development services by December 2010<sup>33</sup>.

- 39,791 total grantees assisted through the NCIP Educational Assistance Program from SY 1998-1999 to SY 2008-2010 1st quarter.; (12,950 graduates; 17,182 on-going grantees);
- 31 grantees assisted for Call Center Training;
- 741 livelihood and Entrepreneurship Project implemented;
- 137 Traditional Craft Production implemented;
- 236 Basic Services Conducted;

<sup>33</sup> NCIP Accomplishments as of December 2010, Office of Policy Planning and Research, NCIP.

- 179 Community Schools Assisted;
- 326 Medical Missions Conducted
- 89,400 IPs nationwide benefited in health programs;
- 450 IPs benefited in Training of IP Community Health Workers in partnership with FOLPMI <sup>34</sup> and DOH;
- 298 Certificate of Compliance to FPIC Process issued;
- 1,365 Certificates without Overlap ( CEB/Certificates on Non-Overlap) issued;
- Deployment of IP Teachers;
- Facilitate in the enrolment of 1,887 IPs in Philhealth

#### 8.6 Policies and a System to Ethnic Minority Groups not designated as Indigenous Groups

At this point, neither statistical data of the ethnic minority groups not designated as IPs nor the policies/regulations for them can be confirmed in the Philippines.

#### 8.7 Other Issues and Problems

In a 2007 World Bank Study of the IPRA and the challenges faced in its implementation, several issues for improvement its implementation are raised as follows<sup>35</sup>;

- a. The NCIP should initiate coordination with other agencies to harmonize the IPRA with other laws such as Mining Act of 1995 and the National Integrated Protected Areas System (NIPAS) Act of 1992.
- b. IP communities' profile, their customary laws and decision-making process should be identified and be made clear at the start to the NCIP and FPIC Applicants.
- c. Organizing IPs and accrediting IP organizations should be prioritized because IPs are the decision-makers themselves.
- d. There is a need to improve and complete the master list of the Ancestral Domain to conform to the requirements of the FPIC.
- e. Enhancing NCIP's organizational and technical capacity is necessary to recognize and analyze social and cultural issues associated with development projects in IP areas and present these for the consideration of the IPs.
- f. The efficiency of the FPIC process should be improved to strengthen its credibility
- g. Assessment of the long-term impacts of the IPRA will require a systematic monitoring of how the IPRA has transformed or failed to transform the lives of its intended beneficiaries.

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<sup>34</sup> Foundation Of Our Lady Of Peace Mission

<sup>35</sup> Indigenous Peoples Rights Act: Legal and Institutional Frameworks, Implementation and Challenges in the Philippines. Discussion papers, East Asia and Pacific Region. Social Development, and Rural Development, Natural Resources and Environment Sectors. World Bank, 2007

## 8.8 Analysis of Gaps between Current Relevant Regulations in the Philippines and JICA Guidelines for Environmental and Social Considerations (April, 2010) as well as Safeguard Policies in the World Bank

Appendix 8-1 shows the gaps between current relevant regulations in the Philippines and JICA Guidelines for Environmental and Social Considerations (April, 2010) as well as Safeguard Policies in the World Bank.

There is no rule to prepare the Indigenous Peoples Plan under the Philippines' regulations. Instead, the Memorandum of Agreement to be executed between and among the ICC/IPs, the applicant and the NCIP and any other party that may be necessarily involved, which should include detailed measures to protect IP rights and value systems, the monitoring and evaluation system and detailed measures to conserve/protect any affected portion of the ancestral domain critical for environment. However, (1) a framework for ensuring free, prior, and informed consultation with the affected Indigenous Peoples' communities during project implementation and (2) accessible procedures appropriate to the project to address grievances by the affected Indigenous Peoples' communities arising from project implementation are missing in the MOA compared with the requirement of IPP under the WB's Safeguard Policies.

## **Chapter 9**

# **Environmental and Social Considerations in Other Donors Projects**



## Chapter 9. Environmental and Social Considerations in Other Donors Project

### 9.1 World Bank

#### 9.1.1 Current Condition and Problems related to Implementation of EIA

According to the WB's safeguard policies related to the EIA, the following points are stipulated:

- The Bank undertakes environmental screening of each proposed project to determine the appropriate extent and type of EA. The Bank classifies the proposed project into one of four categories, depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts: Category A projects that are highly risky or contentious or that involve serious and multidimensional environmental concerns should be conducted the environmental assessment (EA) by the borrower. Category B projects that the impact is less adverse than those of category A required to be conducted narrower EA. Category C projects which it is likely to have minimal or no adverse environmental impacts are not required further EA action beyond screening. Category FI involves investment of Bank funds through a financial intermediary, in subprojects that may result in adverse environmental impacts. (OP 4.01, 8)
- For all Category A and B projects, the borrower provides relevant material in a timely manner prior to consultation and in a form and language that are understandable and accessible to the groups being consulted. (OP 4.01, 14)
- For all Category A and B projects, the borrower provides relevant material in a timely manner prior to consultation and in a form and language that are understandable and accessible to the groups being consulted (OP 4.01, 15). Public availability in the borrowing country and official receipt by the Bank of Category A and B reports for projects are prerequisites to Bank appraisal of these projects (OP 4.01, 17).

There are no significant differences between WB's Safeguard Policies and the Philippines' regulations.

The Table 9.1-1 shows recent WB projects which conducted Environmental Impact Assessment (EIA).

**Table 9.1-1 WB Project with EIA**

Project	Date	Approved Date of the Project	Contents
Judicial Reform Support Project	June, 2010	August, 2003	Environmental Compliance Certificate (ECC) was issued in June 2008 after IEE was conducted. In this report, the copy of the ECC which includes the agreed conditions was disclosed.
Second Women's Health & Safe Motherhood Project Health Sector Reform Project	April, 2010	April, 2005	The project which includes construction, rehabilitation and operation of local health centers was not required to obtain ECC under the Philippine Environmental Impact Statement System (PEISS).

<b>Project</b>	<b>Date</b>	<b>Approved Date of the Project</b>	<b>Contents</b>
Epifanio De Los Santos Avenue (EDSA) Bus Reduction Project	November, 2009	N/A	This project which is to expand the public bus route system in the Metro Manila was categorized Category C under the PEISS. Because of no requirement to obtain ECC, the IEE was conducted.
Ethanol Production and Wastewater Methane Capture Project	October, 2008	January, 2009 (The project was approved as Ethanol Plant Wastewater Biogas Project)	From January to September 2008, the EIA was conducted. This project was categorized Group I under the PEISS that was required to obtain ECC.

Source: WB website (Accessed in May 2011)

### 9.1.2 Current Condition and Problems related to Implementation of Land Acquisition and Involuntary Resettlement

According to the WB's Safeguard Policies related to the land acquisition and involuntary resettlement, the following points are stipulated:

- A resettlement plan or abbreviated resettlement plan is required for all operations that entail involuntary resettlement, and is made available at a place accessible to displaced persons and local NGOs, in a form, manner, and language that are understandable to them (OP 4.12, 17).
- Displaced persons and their communities, and any host communities receiving them, are provided timely and relevant information, consulted on resettlement options, and offered opportunities to participate in planning, implementing, and monitoring resettlement (OP 4.12, 13).
- The borrower should compensate for lost assets which levels should be sufficient to replace the lost land and other assets at full replacement cost in local markets (OP 4.12, 6). In new resettlement sites or host communities, infrastructure and public services are provided as necessary to improve, restore, or maintain accessibility and levels of service for the displaced persons and host communities (OP 4.12, 13).

As mentioned in the Chapter 7, the Philippines has not had a enough legal framework about land acquisition and involuntary resettlement. On the other hand, the DPWH has been developing their rules and policies such as Land Acquisition, Resettlement, Rehabilitation and Indigenous Peoples' Policy (LARRIP Policy) (2007) in cooperation with WB and ADB. Therefore, there are no significant gaps between the policies of DPWH and JICA Guideline as well as Safeguard Policies in the WB.

The Table 9.1-2 shows recent WB projects which formulated the Resettlement Planning Document.

**Table 9.1-2 WB Project with the Resettlement Planning Document**

<b>Project</b>	<b>Date</b>	<b>Approved Date of the Project</b>	<b>Contents</b>
Second National Roads Improvement Project Resettlement action plan for Digos-Cotabate road	December, 2008	May, 2008	This was the road rehabilitation project which lengths was around 161 km. The adverse impact to be identified was that the one PAF would lose their structures and trees.
Manila Third Sewage Project	May, 2005	June, 2005	This is the Resettlement Policy. The Project includes water resource development and construction of the sewage plant which would make 20,000 peoples resettle by 2014.
Nasulo Geothermal Power Project	May, 2003	December, 2005 (The Project was approved as 20 MW Palinpinon II Geothermal Optimization Project)	This project included construction of geothermal power plant, the 62 families were identified to be affected by the project based on the census conducted in 1993.

Source: WB website (Accessed in May 2011)

**Case Study: Second National Roads Improvement Project**

- In July 2007, several Orientation and Coordination Meetings were held among the relevant organizations including DPWH, consultants group, ESSO<sup>36</sup> and LGUs to share the information about the projects and set up of the cut-off date.
- After that, the inventory of affected assets and the census/socio-economic survey of Project Affected Families (PAFs) were conducted. It was identified that the project would adversely affect four PAFs.
- In February 2008, the draft of the Resettlement Action Plan (RAP) was submitted to the WB. The WB made some comments to the RAP in March 2008 as follows.
  - ✓ To complete the Parcellary Survey
  - ✓ Need more details on project affected persons and basis for entitlements.
  - ✓ To plan about disclosure and grievance process.
- In May 2008, the DPWH and consultant group discuss to minimize the adverse impact and revised the plan that was identified only one house as PAF.
- The PAF was informed the project contents, their adverse impact which included loss of their structures and trees as well as the entitlement package. The PAF agreed about that.
- In December 2008, the revised Resettlement Plan was submitted to the WB.

According to the interview to the World Bank conducted in June 2011, the current problems related to implementation of land acquisition and involuntary resettlement are as follows:

<sup>36</sup> Environmental and Social Office under the DPWH

**Table 9.1-3 Current Problems related to Land Acquisition and Involuntary Resettlement**

Contents	Problems
Government Authority	- The basic problem is the lack of a singular government agency to champion the cause of Involuntary Resettlement. There is no specific body or agency tasked by the government to harmonize numerous policies, and preside over or attend to IR concerns.
Project Identification	-There is a lack of skills for planning Resettlement Action Plans (RAP) by preparers.
Project Budgeting	- More focus or allocation is given to environmental requirements than the social obligations.
Project Implementation	- RAP preparation suffers from uncertainty over ownership of the land, imperfect rights documents like tax declarations, and land in the name of deceased parent or grandparent and has not been partitioned among heirs. - Delay in RAP Implementation because of landowner resistance due multiple valuation methods and depreciation of his affected assets. - Resettlement of informal settlers is unsustainable because often resettlement sites are far from places of work and schooling. Economic opportunities and services are also lacking in the resettlement sites. Hence, resettled persons sell their rights and return to the city to squat again.
Project Monitoring and Evaluation	- Weak monitoring of RAP implementation and lack of evaluation of RAP outcomes by the proponent agency.

Source: Interview to WB conducted in June 2011

Countermeasures if there are gaps between current relevant regulations in the Philippines and Safeguard Policies in the WB

Still the development of the regulations related to the land acquisition and involuntary resettlement has been insufficient in the national level, the Department of Public Works and Highways (DPWH) has formulated the Land Acquisition, Resettlement, Rehabilitation and Indigenous Peoples' Policy (LARRIPPP) (3rd edition in 2007), which includes consideration of the IPs during the procedure of land acquisition. This LARRIPPP which is utilized by other authorities, closes gaps with WB' Safeguard Policies or ADB's SPS. However, it tends to come up the policy gap related to the contents of compensation and its pricing. The gap in policies caused by different modes of valuing property and compensating project affected persons are in general resolved by employing an external and independent land or property appraiser to value them.

Confirmation methods of compensation and livelihood rehabilitation

The WB conduct regular monitoring by an External Monitoring Agent to confirm the following issues related to compensation and livelihood rehabilitation:

- Verify results of internal monitoring.
- Verify that the compensation process has been accomplished adhering to procedures communicated to project affected families and indigenous peoples during consultation.
- Ascertain whether the resettlement entitlements were suitable to the objectives; and whether the objectives were suited to the project affected families and indigenous peoples condition.
- Review on how compensation rates were evaluated.
- Verify results of internal monitoring.
- Assess whether resettlement objectives; particularly, whether livelihood and standard of living were restored or enhanced.

- There are indicators external monitoring uses for restoration of livelihood:
- Did income substitution re-establish enterprises?
- Did the affected enterprises receive enough assistance to re-establish themselves?
- Were the vulnerable groups provided with income-earning opportunities that are effective and sustainable?
- Did the jobs provided restore pre-project income levels and living standards?

The World Bank noted based on past projects that participation in the government established microfinance, cooperative, livelihood, and skills training decline over time because the market inside and outside the resettlement location is either small or non-existent for the products and services generated. The livelihood and skills training should address and correspond to the needs of the market.

### 9.1.3 Current Condition and Problems related to Planning for Consideration of Indigenous Peoples

According to the WB's Safeguard Policies related to the indigenous peoples consideration, the following points are stipulated:

- A project proposed for Bank financing that affects Indigenous Peoples requires, screening by the Bank, a social assessment by the borrower, a process of free, prior, and informed consultation with the affected Indigenous Peoples' communities at each stage of the project, the preparation of an Indigenous Peoples Plan (IPP) or an Indigenous Peoples Planning Framework (IPPF), and disclosure of the draft IPP or IPPF (OP 4.10, 6).
- The IPP includes a summary of the social assessment, a summary of results of the free, prior, and informed consultation with the affected Indigenous Peoples' communities, a framework for ensuring consultation with the affected Indigenous Peoples' communities during project implementation, an action plan of measures to ensure that the Indigenous Peoples receive social and economic benefits, appropriate action plan of measures to avoid, minimize, mitigate, or compensate for these adverse effects, the cost estimates and financing plan for the IPP, accessible procedures to address grievances by the affected Indigenous Peoples' communities, mechanisms and benchmarks for monitoring, evaluating, and reporting on the implementation of the IPP (OP4.10 Annex B, 2)
- For all projects that are proposed for Bank financing and affect Indigenous Peoples, the Bank requires the borrower to engage in a process of free, prior, and informed consultation (OP 4.10, 11).

There is no rule to prepare the Indigenous Peoples Plan under the Philippines' regulations. Instead, the Memorandum of Agreement to be executed between and among the ICC/IPs, the applicant and the NCIP and any other party that may be necessarily involved, which should includes detailed measures to protect IP rights and value systems, the monitoring and evaluation system and detailed measures to conserve/protect any affected portion of the ancestral domain critical for environment.

However, (1) a framework for ensuring free, prior, and informed consultation with the affected Indigenous Peoples' communities during project implementation and (2) accessible procedures appropriate to the project to address grievances by the affected Indigenous Peoples' communities arising from project implementation are missing in the MOA compared with the requirement of IPP under the WB's Safeguard Policies.

Currently, 27 of the Indigenous Peoples Plans/ Planning Framework are disclosed on the website of WB. The Table 9.1-4 shows recent WB projects which formulated the Indigenous Peoples Development Planning Document.

**Table 9.1-4 WB Project with the Indigenous Peoples Plan**

<b>Project</b>	<b>Date</b>	<b>Approved Date of the Project</b>	<b>Contents</b>
KALAHI-CIDSS Project	April, 2010	September, 2010	Indigenous Peoples Development Framework. The Project components include provision of the basic social services facilities (e.g., water system, school buildings, health station and day care centers), basic access infrastructure, such as access roads and small bridges, and community enterprise facilities. The Project covers a total of one hundred eighty four (184) municipalities. Of these 184 municipalities, sixty-three (63) municipalities, are wholly or partly occupied by indigenous peoples with diverse ethnicities and tribal affiliations.
Second National Roads Improvement Project	May, 2007	May, 2008	The installation of landslide prevention piles and drainage pipes would affect one IP family to relocate. Therefore, the IP family was discussed with the project proponents as well as barangay chief and agreed the compensation package that included replacement cost, allowance and inconvenient allowance.
Second Mindanao Rural Development Project	August, 2006	March, 2007	Indigenous Peoples Development Framework. The project is a poverty reduction program for the rural poor and indigenous communities of Mindanao. The program would target constraints to increasing agricultural productivity. Social assessment and focus group discussions was undertaken.

Source: WB website (Accessed in May 2011)

According to the interview to the World Bank conducted in June 2011 and the relevant document<sup>37</sup>, the current problems related to consideration of Indigenous Peoples are as follows:

- 1) Inequitable distribution of NCIP' s limited resources among its various offices and mandates, with more going to personnel services and scholarships and less to implementing programs and projects, including activities related to CP/FPIC and delineation of ancestral domain.
- 2) The screening system for the presence of IPs is quite inefficient, resulting in a great number of projects being subjected to field-based investigation even though they are far away from or

<sup>37</sup> The Indigenous Peoples Rights Act: Legal and Institutional Frameworks, Implementation and Challenges, World Bank, June 2007.

outside of IP areas.

- 3) The processing and approval of the CP/FPIC even for projects outside of the ancestral domain is too long. Records of the CP/FPIC application and approval of the subprojects financed under the WB financed Second Agrarian Reform Communities Development Project shows that the processing and approval of CP/FPIC applications even for projects that are outside of ancestral domain areas took much longer (123-557 working days) than what is required under the guidelines of 42 working days.

#### 9.1.4 Confirmation System for Monitoring

WB has developed monitoring and evaluation system during the project implementation as well as after completion of the project. At first, the WB task team will conduct mid-term monitoring review. Under the review, team included the environmental and social consideration specialist periodically (at least twice in a year) visits the field to monitor. The team verifies compliance of the condition agreed between WB and the borrower, and monitoring result done by the borrowers.

#### 9.1.5 Implementation of Information Disclosure during project formulation, project screening and project implementation

According to the WB's Safeguard Policies, the following issues related to information disclosure are stipulated. There are no specific difference between the WB's policy and the rules of the Philippines.

- For all Category A and B projects, the borrower provides relevant material in a timely manner prior to consultation and in a form and language that are understandable and accessible to the groups being consulted (OP4.01, 15).
- For a Category A project, the borrower provides for the initial consultation a summary of the proposed project's objectives, description, and potential impacts; for consultation after the draft EA report is prepared, the borrower provides a summary of the EA's conclusions. In addition, for a Category A project, the borrower makes the draft EA report available at a public place accessible to project-affected groups and local NGOs (OP4.01, 16).
- Any separate Category B report is made available to project-affected groups and local NGOs (OP4.01, 17).
- EA reports as well as resettlement plan/policy framework and Indigenous Peoples Plan/Planning Framework are to be opened to the public at a place accessible to displaced persons and local NGOs, in a form, manner, and language that are understandable to them (OP4.01, 18, OP4.10, 15, OP4.12, 22).

The WB formulated the Policy on Access to Information in July 2010 making more information available to the public than ever before, particularly on Board actions and projects under implementation. The new policy also introduces the request system and the right of appeal.

Compared with the relevant regulations of the Philippines, there is no significant gap about EIA. However as for the resettlement plan, there is no rule in the Philippines except the rules of the IROW

procedural manual by DPWH. Moreover, there is no rule for disclosure about the MOA of the Indigenous Peoples under the Philippines' regulation.

## 9.2 Asia Development Bank

### 9.2.1 Current Condition and Problems related to Implementation of EIA

According to the ADB's Safeguard Policies Statement (SPS), the following issues related to EIA are stipulated. There are no specific difference between the ADB's policy and the rules of the Philippines.

- Based on the significance of a project's potential environmental impacts, a project is categorized to Category A which likely have significant adverse environmental impacts and is required EIA, Category B which potentially have adverse environmental impact less than those of category A and is required IEE, Category C which is not required EIA or Category FI which involves investment of ADB funds to or through a FI (SPS Section 50).
- Draft EIA including Environmental Management Plan should be opened reports at least 120 days before board consideration. Final or updated EIA/ IEE, monitoring results are also opened (SPS Appendix 1, Section 17).
- The borrower/client will carry out meaningful consultation with affected peoples and other concerned stakeholders (SPS Appendix 1, Section 19).
- The borrower/client will establish a mechanism to receive and facilitate resolution of affected peoples' concerns, complaints, and grievances about the project's environmental performance (SPS Appendix 1, Section 20).
- The borrower/client will monitor the compliance with safeguard measures and their progress based on the EMP and/or environmental monitoring plan, and submit periodic monitoring reports (SPS Appendix 1, Section 12, 21).

Table 9.2-1 shows the EIA reports of the ADB projects publicized via the ADB's website recently.

**Table 9.2-1 Recent EIA Reports of the ADB Projects**

<b>Project</b>	<b>Date</b>	<b>Notes</b>
Visayas Base Load Power Project	September, 2010	Category A, EIA
Agrarian Reform Communities II	January, 2008	Category B, IEE
Acquisition and Rehabilitation of the Masinloc Coal-Fired Thermal Power Plant	November, 2007	Category B, IEE
GNPower 2X600MW LNG-Fired Combined-Cycle Power Plant Project	April, 2004	Category A, EIA
Manila North Tollways Corporation	June, 2000	Summary of the five subproject, one of which is Category A.
Ninoy Aquino International Airport International Passenger Terminal 3	January, 2000	Category A, EIA
Masinloc Coal Fired Thermal Power Plant Project	May, 1995	Category A, EIA

Source: ADB website (Accessed in May 2011)

### **Case Study 1 : GNPowerr 2X600MW LNG-Fired Combined-Cycle Power Plant Project**

This project is installation of the 1,200-megawatt (MW) liquefied natural gas (LNG)-fired combined-cycle power plant and high-voltage direct current (HVDC) transmission system of GNPowerr Ltd. Co. (GNPowerr), which will be located in a 55-hectare (ha) coastal area in the town (barangay) of Alas-asin, Mariveles, Bataan. This is Category A project by ADB and Group I by the Philippines EIA system. The following is the process of EIA:

- Consultation with various local stakeholders started early, during prefeasibility in July 2000. Early meetings with government agencies were to ensure dissemination of advance information about the project.
- Intensive information dissemination started in early January 2001 to prepare the local community for a formal scoping meeting on 10 February 2001. Meetings were also undertaken with key stakeholders and various concerned agencies to give an initial overview of the project.
- The formal scoping with the stakeholders was held on 10 February 2001, also at the barangay hall of Barangay Alas-asin. A total of 56 stakeholders participated in the scoping process.
- The EMB conducted a public hearing on 8 September 2001. Newspaper announcements were published in two local newspaper for 1 to 2 weeks. More than 50 people attended.
- The stakeholders' consultation influenced the project planning through the following design changes: (i) use of the full containment for LNG storage, (ii) redesigning of the seawater discharged pipes with the six diffuser nozzles to reduce the area of the mixing zone to 60 m in diameter, and (iii) the use of LNG as the sole fuel
- Social acceptability for the project was manifested through (i) written endorsements by local governments, from the barangay to the Office of the House of Representatives, (ii) the passage of subsequent resolutions by all local governments, and (iii) the results of the EIA social perception survey showing an overwhelming support (80%) for the project and its siting.
- As the conclusion of the EIA, The impact on the social environment is positive given the job and business opportunities created for local residents and the substantial taxes and revenues from the project. The project was designed to comply with the country's environmental controls and regulations, especially on air emissions, ambient air quality, wastewater effluent, ambient water quality, and noise. The most critical issue for the project is safety. This will be adequately addressed through several mitigation measures.
- EIA report was submitted to the EMB in July 2001 which included Environmental Management Plan.
- The DENR granted an Environmental Compliance Certificate (ECC) for the project on 24 April 2002.

### **Case Study 2 : Visayas Base Load Power Project**

The Project construct a coal-fired power plant utilizing circulating fluidized bed combustion (CFBC) technology in Naga, in the province of Cebu. First Project Information Document was formulated in March 2009. The following is the procedure of EIA.

- The first level scoping meeting was conducted on 15 October 2004 in Quezon City, and

attended by the DENR representative, EIA review committee members, EIA consultant, and KSPC proponent.

- The second level scoping was conducted on 6 November 2004 in Naga, Cebu. It was attended by 95 participants from the local government unit, representatives of civic organizations, nongovernment agencies, some concerned residents, and KSPC. The major issue discussed was plant emissions—including air, water, noise, and hazardous materials, which were thoroughly addressed by the KSPC.
- A public hearing was held in Naga on 6 August 2005. It was well attended by more than 200 people from different sectors of the community, including representatives of the DENR Environmental Management Bureau from the national and regional office.
- Local government officials from city and barangay levels have already shown their
- support to the Project through issuance of official endorsements from February to May 2005.
- The Project has helped the resettlement of informal dwellers who were utilizing the area of the previously utilized ash pond. This has been done in close coordination with the local government and the rightful owner of the land (National Power Corporation : NPC).
- In December 2005, the DENR gave the ECC for the Project

#### 9.2.2 Current Condition and Problems related to Implementation of Land Acquisition and Involuntary Resettlement

According to the ADB's SPS, the following issues related to land acquisition and involuntary resettlement are stipulated.

- The project proponent has to avoid involuntary resettlement wherever possible, to minimize involuntary resettlement by exploring and design alternative (SPS Appendix 2, Section 3).
- The borrower/client will conduct Social Impact Assessment and set the cut-off date to indentify the affected persons as well as structures to be affected. Based on the results, the Resettlement Plan are formulated (SPS Appendix 2, Section 15 and 17).
- Toward the affected persons, the borrower/client will provide (i) compensation at full replacement cost, (ii) assistance for relocation, (iii) a comprehensive income and livelihood rehabilitation program, and (iv) information about their options and entitlements and choices (SPS Appendix 2, Section 14).
- The persons who lost the land they occupy who have neither formal legal rights nor recognized or recognizable claims to such land shall be applied for the involuntary resettlement requirements (SPS Appendix 2, Section 7).

As same as WB, there are no significant gap between ADB'S SPS and the policies of DPWH.

Table 9.2-2 shows the Resettlement Planning Documents of the ADB projects publicized via the ADB's website recently.

**Table 9.2-2 Recent Resettlement Planning Document of the ADB Projects**

Project	Date	Notes
Visayas Base Load Power Project	February, 2010	All relocated families were non-titled/informal settler. Out of 22 families, 17 families have voluntarily evacuated and relocated. The remaining 5 families claimed to have legal titles. Therefore National Power Corporation filed a case against these families in the court. Entitlement package included not only compensation for land and structure, but also compensation for crops, plants and trees, and compensation for income loss and disturbance.
Road Sector Institutional Development and Investment Program	September, 2009	Resettlement Planning Framework Land acquisition and involuntary resettlement will be depended on the detailed design of roads.
Angat Water Utilization and Aqueduct Improvement Project	January, 2006	Alternative measure was considered in order to mitigate the affected families from 1800 to 377.

Source: ADB website (Accessed in May 2011)

(1) Countermeasures if there are gaps between current relevant regulations in the Philippines and Safeguard Policies in the ADB

One significant countermeasure in bridging the gaps between the country's regulations and ADB's safeguard policy in involuntary resettlement is the Philippine Department of Justice (DOJ) Opinion 008 series of 1997 that legally supports the adoption of ADB policies for ADB funded projects. Projects like the Infrastructure for Rural Productivity Enhancement Sector (InfRES) Project cite this. Many other projects state that they use and conform to ADB's guidelines such as the Agrarian Reform Communities Project II, and Angat Water Utilization and Aqueduct Improvement Project.

Comprehensive and detailed entitlement matrix based census / surveys and participation of project affected person narrows the policy gaps. For example, the project Road Sector Institutional Development and Investment Program reconciled the country's and ADB policies on non-titled land users, caretakers/ unregistered tenants of land, subleased space not covered by contracts between and among the government and the owners of commercial spaces, and informal settlers of government property by specifically stating that while they are not entitled compensation for land, affected persons under this category are entitled to payment for non-land assets at replacement cost and assistance in cash or in kind to restore their living condition before the project. Another affected group, displaced vendors, small or unregistered shop owners will be provided rehabilitation assistance by creating of new income opportunities to improve their socio-economic status and cover the loss of their income generating assets and physical displacement. The project's entitlement matrix also contains detailed compensation and/or assistance for affected persons regardless of tenure.

Confirmation methods of compensation and livelihood rehabilitation

The confirmation methods of compensation of ADB are basically similar to that of the World Bank. The independent or external monitoring agents employed by project proponents are tasked with the same assignments and submission of compliance monitoring reports. An independent land appraiser

or a specialist in property appraisal is employed particularly to confirm means of compensation and property valuation or land pricing.

### 9.2.3 Current Condition and Problems related to Planning for Consideration of Indigenous Peoples

According to the ADB's SPS, the following issues related to consideration of Indigenous Peoples are stipulated.

- The borrower/client will carry out a full social impact assessment (SIA) and formulate the IPP in the context of the SIA (SPS Appendix3, Section 13).
- The borrower/client will undertake meaningful consultation with affected Indigenous Peoples to ensure their informed participation. The borrower/client will provide relevant information from the documents such as a draft Indigenous Peoples Planning (IPP), the final IPP and the monitoring reports (SPS Appendix3, Section 10).
- The borrower/client will establish a mechanism to receive and facilitate resolution of the affected Indigenous Peoples communities concerns, complaints and grievances (SPS Appendix3, Section 22).
- The borrower/client will monitor and measures the progress of implementation of the IPP (SPS Appendix3, Section 23).

Though there are no difference between the ADB's policy and the Philippines's policy. Main difference of its procedure is that the project proponent is not required to formulate the Indigenous Peoples Plan under the Philippine's rule.

Table 9.2-3 shows recent ADB projects which formulated the Indigenous Peoples Development Planning Document.

**Table 9.2-3 ADB Project with Indigenous Peoples Development Planning Document**

<b>Project</b>	<b>Date</b>	<b>Contents</b>
Integrated Natural Resources and Environmental Management Program	April , 2010	Indigenous Peoples Development Framework Target watershed area includes 12 provinces where 73.6% is IPs. After the contents of the project are finalized, detailed social impact assessment, IPP formulation and FPIC process will be conducted.
Road Sector Institutional Development and Investment Program	August, 2009	The Project includes maintenance and improvement of about 1,900 km national roads, improved governance and strengthened institutional capacity in the transport sector, and preparation of detailed engineering design for about 1,680 km of national roads to be maintained or improved. The IPs living in Ibalois, Manobo Arumen and Subanen might be affected.
Agrarian Reform Communities Project II	October, 2008	Indigenous Peoples Development Framework for Agrarian Reform projects. Target areas are 6 provinces which includes 21 of Ancestral Domains and 5,000-20,000 IPs. FPIC to IPs is required.
Support for the Sustainable Health Care Project	August, 2008	It may bring small impact to the IPs.

Source: Website of ADB (Accessed in May 2011)

### **Case Study: Agrarian Reform Communities Project II (1999-2009)**

This project targeted approximately 152 agrarian reform communities in Southern Philippines, which includes 21 of Ancestral Domains and 5,000- 20,000 IPs. The Indigenous Peoples Development Framework (IPDF) was prepared in a fully participatory manner and in keeping with the ADB's Policy on Indigenous Peoples and the Indigenous Peoples Rights Act, 1997 (IPRA,) of the Philippines as following steps:

- An Initial Social Assessment (ISA) was undertaken in June 2004 as part of the technical assistance (TA) fact finding.
- Consultations with IPs were held by the Project Preparatory Technical Assistance (PPTA) teams between August and September 2005 in all regions except region IV, where none of the proposed Agrarian Reform Communities cover IP populations.
- The ADB loan fact finding mission held consultations with the IP groups in two areas in May and September, 2007. The barangay officials, the IP leaders of their barangays, IP ARBs, IP women, representatives of traditional councils, and LGU representatives participated in the meetings. At the barangay level meetings, the Project outputs were discussed by the mission, with the community groups, through participatory focus groups. The mission provided information regarding the project and expected outcomes. In all instances, the IP communities appreciated the opportunity being provided for their informed participation and agreed to join the Project.
- Further consultations were held with the National Commission on Indigenous Peoples (NCIP) during the Loan Fact finding and Pre Appraisal missions, both at regional and national levels.
- Following the field visits by the pre appraisal mission, discussions were held with the Mayor of the target Municipality.
- Based on the above activities, IDPF was formulated in October 2008.

#### **9.2.4 Confirmation System for Monitoring**

According to the ADB's SPS, both the borrower/client have their own separate monitoring responsibilities. The ADB requires borrowers/clients to (SPS Section57):

- Establish and maintain procedures to monitor the progress of implementation of safeguard plans.
- Verify the compliance with safeguard measures and their progress toward intended outcomes.
- Document and disclose monitoring results and identify necessary corrective and preventive actions in the periodic monitoring reports.
- Follow up on these actions to ensure progress toward the desired outcomes
- Retain qualified and experienced external experts or qualified NGOs to verify monitoring information for projects with significant impacts and risks.
- Use independent advisory panels to monitor project implementation for highly complex and sensitive projects

- Submit periodic monitoring reports on safeguard measures as agreed with ADB

Compared with the relevant regulations of the Philippines, there is no significant gap about EIA.

As for the resettlement plan, there is no rule of monitoring in the Philippines except the rules of the IROW procedural manual by DPWH. As for the Indigenous People consideration, the MOA shall include monitoring and evaluation measures but detailed contents are not regulated.

As for ADB, each division of ADB has responsibilities for overall contents of the project. On the other hand, Environment and Social Safeguard Division (RSES) under the Regional and Sustainable Development Department (RSDD) has responsibilities to confirm whether the each project complies ADB safeguards.

In general the ADB carries out the following monitoring actions to supervise project implementation.

- Conduct periodic site visits for projects with adverse environmental or social impacts;
- Conduct supervision missions with detailed review by ADB's safeguard specialists/officers or consultants for projects with significant adverse social or environmental impacts;
- Review the periodic monitoring reports submitted by borrowers/clients to ensure that adverse impacts and risks are mitigated as planned and as agreed with ADB;
- Work with borrowers/clients to rectify to the extent possible any failures to comply with their safeguard commitments, as covenanted in the legal agreements, and exercise remedies to re-establish compliance as appropriate; and
- Prepare a project completion report that assesses whether the objective and desired outcomes of the safeguard plans have been achieved, taking into account the baseline conditions and the results of monitoring.

#### 9.2.5 Implementation of Information Disclosure during project formulation, project screening and project implementation

According to the ADB's SPS, the following issues related to information disclosure are stipulated (SPS Section53):

- ADB is committed to working with the borrower/client to ensure that relevant information (whether positive or negative) about social and environmental safeguard issues is made available in a timely manner, in an accessible place, and in a form and language(s) understandable to affected people and to other stakeholders.
- For environment category A projects, draft environmental impact assessment reports at least 120 days before Board consideration;
- Draft environmental assessment and review framework, draft resettlement frameworks and/or plans, and draft Indigenous Peoples planning frameworks and/or plans before project appraisal;
- Final or updated environmental impact assessments and/or initial environmental examinations, resettlement plans, and Indigenous Peoples plans upon receipt;
- Environmental, involuntary resettlement, and Indigenous Peoples monitoring reports submitted

by borrowers/clients during project implementation upon receipt.

Compared with the relevant regulations of the Philippines, there is no significant gap about EIA.

As for the resettlement plan, there is no rule in the Philippines except the rules of the IROW procedural manual by DPWH. Moreover, there is no rule for disclosure about the MOA of the Indigenous Peoples under the Philippines' regulation.

In the website of ADB (as of May 2011), various documents including EIA report, IRR, RP as well as monitoring reports can be accessible. However the documents written in languages other than English cannot be found.

**Gaps between Relevant Regulations in the Philippines and JICA Guidelines  
as well as Safeguard Policies in the World Bank – Natural Habitat**



Gaps between Relevant Regulations in the Philippines and JICA Guidelines as well as Safeguard Polices in the World Bank – Natural Habitat

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.04/4.36	Harmonized Policy	Government Laws	Gaps between Harmonized Policy and Government laws	The mechanisms to bridge gaps
Definition						
Definition of critical natural habitat and critical forest area		(i) existing protected areas and areas officially proposed by governments as protected areas, areas initially recognized as protected by traditional local communities, and sites that maintain conditions vital for the viability of these protected areas; or (ii) sites identified on supplementary lists prepared by the Bank or an authoritative source determined by the Regional environment sector unit. Such sites may include areas recognized by traditional local communities; areas with known high suitability for bio-diversity conservation; and sites that are critical for rare, vulnerable, migratory, or endangered species. (OP4.04) Critical forest areas are the forest areas that qualify as critical natural habitats under OP 4.04, Natural Habitats. (OP4.36)	(i) existing protected areas and areas officially proposed by governments as protected areas, areas initially recognized as protected by traditional local communities, and sites that maintain conditions vital for the viability of these protected areas; or (ii) sites identified on supplementary lists prepared by JICA or an authoritative source determined by the Regional environment sector unit. Such sites may include areas recognized by traditional local communities; areas with known high suitability for bio-diversity conservation; and sites that are critical for rare, vulnerable, migratory, or endangered species. Critical forest areas are the forest areas that qualify as critical natural habitats under OP 4.04, Natural Habitats.	The critical habitats are designated outside protected areas under the NIPAS Act, where threatened species are found. Such designation shall be made on the basis of the best scientific data taking into consideration species endemism and/or richness, presence of man-made pressures/threats to the survival of wildlife living in the area, among others. (RA 9147)  Critical watershed is a drainage area of a river system supporting existing and proposed hydro-electric power, irrigation works or domestic water facilities needing immediate protection or rehabilitation. (PD 705)	No gaps between Harmonized Policy and Government Laws	Not applicable
Definition of significant conversion		Significant conversion is the elimination or severe diminution of the integrity of a critical or other natural habitat caused by a major, long-term change in land or water use. Significant conversion may include, for example, land clearing; replacement of natural vegetation; permanent flooding; drainage, dredging, filling, or channelization of wetlands; or surface mining. In both terrestrial and aquatic ecosystems, conversion of natural habitats can occur as the result of severe pollution. (OP4.04)	Significant conversion is the elimination or severe diminution of the integrity of a critical or other natural habitat caused by a major, long-term change in land or water use. Significant conversion may include, for example, land clearing; replacement of natural vegetation; permanent flooding; drainage, dredging, filling, or channelization of wetlands; or surface mining. In both terrestrial and aquatic ecosystems, conversion of natural habitats can occur as the result of severe pollution. (OP4.04)	No specification	No specification under the Philippines' law	Not applicable
Definition of degradation		Degradation is modification of a critical or other natural habitat that substantially reduces the habitat's ability to maintain viable populations of its native species. (OP4.04)	Degradation is modification of a critical or other natural habitat that substantially reduces the habitat's ability to maintain viable populations of its native species.	No specification.	No specification under the Philippines' law	Not applicable
Definition of appropriate conservation and mitigation measures		Appropriate conservation and mitigation measures remove or reduce adverse impacts on natural habitats or their functions, keeping such impacts within socially defined limits of acceptable environmental change. Specific measures depend on the ecological characteristics of the given site. Such measures should always include provision for monitoring and evaluation to provide feedback on conservation outcomes and to provide guidance for developing or refining appropriate corrective actions. (OP4.04)	Appropriate conservation and mitigation measures remove or reduce adverse impacts on natural habitats or their functions, keeping such impacts within socially defined limits of acceptable environmental change. Specific measures depend on the ecological characteristics of the given site. Such measures should always include provision for monitoring and evaluation to provide feedback on conservation outcomes and to provide guidance for developing or refining appropriate corrective actions.	“Conservation” means preservation and sustainable utilization of wildlife, and/or maintenance, restoration and enhancement of the habitat; (RA 9147)	No gaps between Harmonized Policy and Government Laws	Not applicable

Core principle						
Impacts to be Assessed	JICA supports and examines appropriate environmental and social considerations undertaken by project proponents etc. to avoid or minimize development projects' impacts on the environment and local communities, and to prevent the occurrence of unacceptable adverse impacts. The impacts to be assessed with regard to environmental and social considerations include impacts on the natural environment, ecosystems, fauna and flora, including trans-boundary or global scale impacts.	In accordance with OP/BP 4.01, Environmental Assessment, the environmental assessment (EA) for an investment project addresses the potential impact of the project on forests and/or the rights and welfare of local communities. (OP4.04) In accordance with OP/BP 4.01, Environmental Assessment, the environmental assessment (EA) for an investment project addresses the potential impact of the project on forests and/or the rights and welfare of local communities. (OP4.36)	Impacts on the natural environment, ecosystems, fauna and flora, including trans-boundary or global scale impacts and on forests and/or the rights and welfare of local communities will be assessed.	The country's statutory framework requiring Environmental Impact Assessment (EIA) for all projects that will affect environmental quality is embodied in Presidential Decree (PD) 1151 of 1977. Under the EIA process, the proponent shall assess the direct and indirect impacts of a project on the biophysical and human environment and ensuring that these impacts are addressed by appropriate environmental protection and enhancement measures. (DAO 2003-30)	Assessment of impacts up to trans-boundary or global scale are not emphasized in the regulations.	Impacts on the natural environment, ecosystems, fauna and flora, including trans-boundary or global scale impacts will be assessed.
Compliance with relevant Laws, Standards, and Plans	Projects must comply with the laws, ordinances, and standards related to environmental and social considerations established by the governments that have jurisdiction over project sites (including both national and local governments).  Illegal logging of forests must be avoided. Project proponents etc. are encouraged to obtain certification by forest certification systems as a way to ensure the prevention of illegal logging.	The Bank does not finance projects that contravene applicable international environmental agreements. (OP4.36)	JICA does not support projects that contravene the laws, ordinances, standards related to environmental and social considerations established by the governments, and applicable international environmental agreements.	Proposal for activities which are outside the scope of the management plan for protected areas shall be subject to an environmental impact assessment as required by law before they are adopted, and the results thereof shall be taken into consideration in the decision-making process. No actual implementation of such activities shall be allowed without the required Environment Compliance Certificate (ECC) under the Philippine Environment Impact Assessment (EIA) System. In instances where such activities are allowed to be undertaken, the proponent shall plan and carry them out in such manner as to minimize any adverse effects and take preventive and remedial action when appropriate. The proponent shall be liable for any damage due to lack of caution, on indiscretion. (NIPAS Act)	Gap is insignificant	Not applicable
Projects involving significant conversion or significant degradation of critical natural habitats and critical forests	Projects must not involve significant conversion or significant degradation of critical natural habitats and critical forests.	The Bank does not support projects that, in Bank's opinion, involve the significant conversion or degradation of critical natural habitats.(OP4.04) The Bank does not finance projects that, in its opinion, would involve significant conversion or degradation of critical forest areas or related critical natural habitats. (OP4.36)	Projects must not involve significant conversion or degradation of critical natural habitats and critical forests.	(see Compliance with relevant Laws, Standards, and Plans) Prohibited acts inside the protected area includes Mutilating, defacing or destroying objects of natural beauty, or burial grounds, religious sites, artifacts or other objects belonging to cultural communities, Squatting, mineral exploration, or otherwise illegally occupying any land, and Hunting, destroying, disturbing, or mere possession of any plant or animal or products derived therefrom without a permit, specifically such activity, from the Board or in the case of indigenous cultural communities without a mutually agreed policy. (NIPAS Act) All designated, critical habitats shall be protected, in coordination with the local government units and other concerned groups, from any form of exploitation or destruction which may be detrimental to the survival of the threatened species dependent therein. For such purpose, the Secretary may acquire, by purchase, donation or expropriation, lands, or interests therein, including the acquisition of usufruct, establishment of easements or other undertakings appropriate in protecting the critical habitat. (RA 9147) Critical watersheds, national parks and established experimental forests shall not be subject to commercial logging or grazing operations, and game refuges, bird sanctuaries, marine and	Under the Philippines laws, all activities are not prohibited. But no actual implementation of such activities shall be allowed without the required Environment Compliance Certificate (ECC) under the Philippine Environment Impact Assessment (EIA) System. In instances where such activities are allowed to be undertaken, the proponent shall plan and carry them out in such manner as to minimize any adverse effects and take preventive and remedial action when appropriate.	At first, the proponents should determine feasible alternatives. Appropriate implementation of EIA process must be required.

				seashore parks shall not be subject to hunting or fishing and other activities of commercial nature. (PD 705)		
Projects involving significant conversion or significant degradation of natural habitats and forests (not critical)		<p>The Bank does not support projects involving the significant conversion of natural habitats unless there are no feasible alternatives for the project and its siting, and comprehensive analysis demonstrates that overall benefits from the project substantially outweigh the environmental costs. If the environmental assessment indicates that a project would significantly convert or degrade natural habitats, the project includes mitigation measures acceptable to the Bank. Such mitigation measures include, as appropriate, minimizing habitat loss (e.g., strategic habitat retention and post-development restoration) and establishing and maintaining an ecologically similar protected area. The Bank accepts other forms of mitigation measures only when they are technically justified. (OP4.04)</p> <p>If a project involves the significant conversion or degradation of natural forests or related natural habitats that the Bank determines are not critical, and the Bank determines that there are no feasible alternatives to the project and its siting, and comprehensive analysis demonstrates that overall benefits from the project substantially outweigh the environmental costs, the Bank may finance the project provided that it incorporates appropriate mitigation measures. (OP4.36)</p>	<p>If a project involves the significant conversion or degradation of natural forests or related natural habitats that JICA determines are not critical, and JICA determines that there are no feasible alternatives to the project and its siting, and comprehensive analysis demonstrates that overall benefits from the project substantially outweigh the environmental costs, JICA may support the project provided that it incorporates appropriate mitigation measures. Such mitigation measures include, as appropriate, minimizing habitat loss and establishing and maintaining an ecologically similar protected area. JICA accepts other forms of mitigation measures only when they are technically justified.</p>	<p>(see Compliance with relevant Laws, Standards, and Plans)</p> <p>The numerous beneficial uses of the timber, land, soil, water, wildlife, grass and recreation or aesthetic value of forest lands and grazing lands shall be evaluated and weighted before allowing their utilization, exploitation, occupation or possession thereof, or the conduct of any activity therein. Only the utilization, exploitation, occupation or possession of any forest lands and grazing lands, or any activity therein, involving one or more of its resources, which will produce the optimum benefits to the development and progress of the country, and the public welfare, without impairment or with the least injury to its resources, shall be allowed. (PD 705)</p>	Gap is insignificant	Not applicable
Site selection	Projects must, in principle, be undertaken outside of protected areas that are specifically designated by laws or ordinances for the conservation of nature or cultural heritage (excluding projects whose primary objectives are to promote the protection or restoration of such areas). Projects are also not to impose significant adverse impacts on designated conservation areas. (Appendix 1. 4-2)	Wherever feasible, Bank-financed projects are sited on lands already converted (excluding any lands that in the Bank's opinion were converted in anticipation of the project). The Bank does not support projects involving the significant conversion of natural habitats unless there are no feasible alternatives for the project and its siting, and comprehensive analysis demonstrates that overall benefits from the project substantially outweigh the environmental costs. (OP4.04)	<p>Projects must, in principle, be undertaken outside of protected areas that are specifically designated by laws or ordinances for the conservation of nature. Projects are also not to impose significant adverse impacts on designated conservation areas.</p> <p>Wherever feasible, JICA-supported projects are sited on lands already converted (excluding any lands that in the JICA's opinion were converted in anticipation of the project).</p>	All designated, critical habitats shall be protected, in coordination with the local government units and other concerned groups, from any form of exploitation or destruction which may be detrimental to the survival of the threatened species dependent therein. For such purpose, the Secretary may acquire, by purchase, donation or expropriation, lands, or interests therein, including the acquisition of usufruct, establishment of easements or other undertakings appropriate in protecting the critical habitat. (RA 9147)	Gap is insignificant.	Not applicable
Expertise		In projects with natural habitat components, project preparation, appraisal, and supervision arrangements include appropriate environmental expertise to ensure adequate design and implementation of mitigation measures. (OP4.04)	In projects with natural habitat components, project preparation, appraisal, and supervision arrangements include appropriate environmental expertise to ensure adequate design and implementation of mitigation measures.	No specification	No specification under the Philippines' law	Projects with natural habitat components, project preparation, appraisal, and supervision arrangements should include appropriate environmental expertise to ensure adequate design and implementation of mitigation measures.
Project Environmental Review						
Plantation		The Bank does not finance plantations that involve any conversion or degradation of critical natural habitats, including adjacent or downstream critical natural habitats. When the Bank finances plantations, it gives	JICA does not support plantations that involve any conversion or degradation of critical natural habitats, including adjacent or downstream critical natural habitats. When JICA supports plantations, it gives preference to siting such	Lands to be reforested and/or afforested are as follows: a. Public forest lands, b. Bare or grass-covered tracts of forest lands, c. Brushlands or tracts of forest lands generally covered with brush, which need to be developed	No specification about threat of invasive species and change of biodiversity.	In view of the potential for plantation projects to introduce invasive species and threaten biodiversity, such projects must be designed to prevent and mitigate these potential threats to natural habitats.

		preference to siting such projects on unforested sites or lands already converted (excluding any lands that have been converted in anticipation of the project). In view of the potential for plantation projects to introduce invasive species and threaten biodiversity, such projects must be designed to prevent and mitigate these potential threats to natural habitats. (OP4.36)	projects on unforested sites or lands already converted (excluding any lands that have been converted in anticipation of the project). In view of the potential for plantation projects to introduce invasive species and threaten biodiversity, such projects must be designed to prevent and mitigate these potential threats to natural habitats.	to increase their productivity, d. Open tracts of forest lands interspersed with patches of forest, e. Denuded or inadequately timbered areas proclaimed by, the President as forest reserves and reservations as critical watersheds, national parks, game refuge, bird sanctuaries, national shrines, national historic sites, f. Inadequately-stock forest lands within forest concessions, g. Portions of areas covered by pasture leases or permits needing immediate reforestation, h. River banks, easements, road right-of-ways, deltas, swamps, former river beds, and beaches, i. Private Lands, j. Portions of private lands required to be reforested or planted to trees pursuant to Presidential Decree Nos. 953 and 1153 and other existing laws.		
Commercial harvesting		The Bank may finance commercial harvesting operations only when the Bank has determined, on the basis of the applicable environmental assessment or other relevant information, that the areas affected by the harvesting are not critical forests or related critical natural habitats To be eligible for Bank financing, industrial-scale commercial harvesting operations must also a) be certified under an independent forest certification system acceptable to the Bank as meeting standards of responsible forest management and use; or b) where a pre-assessment under such an independent forest certification system determines that the operation does not yet meet the requirements of subparagraph a), adhere to a time-bound phased action plan acceptable to the Bank for achieving certification to such standards.(OP4.36)	JICA may support commercial harvesting operations only when JICA has determined, on the basis of the applicable environmental assessment or other relevant information, that the areas affected by the harvesting are not critical forests or related critical natural habitats To be eligible for JICA's support, industrial-scale commercial harvesting operations must also a) be certified under an independent forest certification system acceptable to JICA as meeting standards of responsible forest management and use; or b) where a pre-assessment under such an independent forest certification system determines that the operation does not yet meet the requirements of subparagraph a), adhere to a time-bound phased action plan acceptable to JICA for achieving certification to such standards.	In any logging operations in production forests within forest lands, the proper silvicultural and harvesting system that will promote optimum sustained yield shall be practiced, to wit: a. For dipterocarp forest, selective logging with enrichment or supplemental planting when necessary. b. For pine or mangrove forest, the seed tree system with planting when necessary: Provided, That subject to the approval of the Department Head, upon recommendation of the Director, any silvicultural and harvesting system that may be found suitable as a result of research may be adopted: Provided, further, That no authorized person shall cut, harvest or gather any timber, pulp-wood, or other products of logging unless he plants three times of the same variety for every tree cut or destroyed by such logging or removal of logs. Any violation of this provision shall be sufficient ground for the immediate cancellation of the license, agreement, lease or permit. (PD 705)	Basically there are no gaps between the armonized policy and the Philippines' law..	Not Applicable
Requirements for forest certificate	Illegal logging of forests must be avoided. Project proponents etc. are encouraged to obtain certification by forest certification systems as a way to ensure the prevention of illegal logging. (Appendix 1. 6-2)	To be acceptable to the Bank, a forest certification system must require: a) compliance with relevant laws; b) recognition of and respect for any legally documented or customary land tenure and use rights as well as the rights of indigenous peoples and workers; c) measures to maintain or enhance sound and effective community relations; d) conservation of biological diversity and ecological functions; e) measures to maintain or enhance environmentally sound multiple benefits accruing from the forest; f) prevention or minimization of the adverse environmental impacts from forest use; g) effective forest management planning; h) active monitoring and assessment of relevant forest management areas; and i) the maintenance of critical forest areas and other critical natural habitats affected by the operation.	Project proponents etc. are encouraged to obtain certification by forest certification systems as a way to ensure the prevention of illegal logging. To be acceptable to JICA, a forest certification system must require: a) compliance with relevant laws; b) recognition of and respect for any legally documented or customary land tenure and use rights as well as the rights of indigenous peoples and workers; c) measures to maintain or enhance sound and effective community relations; d) conservation of biological diversity and ecological functions; e) measures to maintain or enhance environmentally sound multiple benefits accruing from the forest; f) prevention or minimization of the adverse environmental impacts from forest use; g) effective forest management planning; h) active monitoring and assessment of relevant forest management areas; and i) the maintenance of critical forest areas and	In order to achieve the effective protection of the forest lands and the resources thereof from illegal entry, unlawful occupation, kaingin, fire, insect infestation, theft, and other forms of forest destruction, the utilization of timber therein shall not be allowed except through license agreements under which the holders thereof shall have the exclusive privilege to cut all the allowable harvestable timber in their respective concessions, and the additional right of occupation, possession, and control over the same, to the exclusive of all others, except the government, but with the corresponding obligation to adopt all the protection and conservation measures to ensure the continuity of the productive condition of said areas, conformably with multiple use and sustained yield management..		

		<p>In addition to the requirements in paragraph above, a forest certification system must be independent, cost-effective, and based on objective and measurable performance standards that are defined at the national level and are compatible with internationally accepted principles and criteria of sustainable forest management. The system must require independent, third-party assessment of forest management performance. In addition, the system's standards must be developed with the meaningful participation of local people and communities; indigenous peoples; non-governmental organizations representing consumer, producer, and conservation interests; and other members of civil society, including the private sector. The decision-making procedures of the certification system must be fair, transparent, independent, and designed to avoid conflicts of interest. (OP4.36)</p>	<p>other critical natural habitats affected by the operation.</p> <p>In addition to the requirements in paragraph above, a forest certification system must be independent, cost-effective, and based on objective and measurable performance standards that are defined at the national level and are compatible with internationally accepted principles and criteria of sustainable forest management. The system must require independent, third-party assessment of forest management performance. In addition, the system's standards must be developed with the meaningful participation of local people and communities; indigenous peoples; non-governmental organizations representing consumer, producer, and conservation interests; and other members of civil society, including the private sector. The decision-making procedures of the certification system must be fair, transparent, independent, and designed to avoid conflicts of interest.</p>			
Harvesting by small-scale landholders		<p>The Bank may finance harvesting operations conducted by small-scale landholders, by local communities under community forest management, or by such entities under joint forest management arrangements, if these operations:</p> <p>(a) have achieved a standard of forest management developed with the meaningful participation of locally affected communities, consistent with the principles and criteria of responsible forest management outlined in paragraph 10; or</p> <p>(b) adhere to a time-bound phased action plan to achieve such a standard. The action plan must be developed with the meaningful participation of locally-affected communities and be acceptable to the Bank.</p> <p>The borrower monitors all such operations with the meaningful participation of locally-affected communities.</p>	<p>JICA may support harvesting operations conducted by small-scale landholders, by local communities under community forest management, or by such entities under joint forest management arrangements, if these operations:</p> <p>(a) have achieved a standard of forest management developed with the meaningful participation of locally affected communities, consistent with the principles and criteria of responsible forest management outlined in paragraph 10; or</p> <p>(b) adhere to a time-bound phased action plan to achieve such a standard. The action plan must be developed with the meaningful participation of locally-affected communities and be acceptable to JICA.</p> <p>The recipient country monitors all such operations with the meaningful participation of locally-affected communities.</p>	No specification	There is no specification under the Philippines' law.	No applicable.



**Gaps between Relevant Regulations in the Philippines and JICA Guidelines  
as well as Safeguard Policies in the World Bank – Physical Cultural Resources**



Gaps between Relevant Regulations in the Philippines and JICA Guidelines as well as Safeguard Policies in the World Bank – Physical Cultural Resources

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.11	Harmonized Policy	Government laws on physical cultural resources	Gaps between Harmonized Policy and Government laws	The mechanisms to bridge gaps
<b>Objective</b>						
<b>Avoid or mitigate adverse impact on physical cultural resources</b>	Projects must, in principle, be undertaken outside of protected areas that are specifically designated by laws or ordinances for the conservation of nature or cultural heritage (excluding projects whose primary objectives are to promote the protection or restoration of such areas). Projects are also not to impose significant adverse impacts on designated conservation areas. (Appendix 1. 4-2)	The Bank assists countries to avoid or mitigate adverse impacts on physical cultural resources from development projects. (3)	Projects must, in principle, be undertaken outside of protected areas that are specifically designated by laws or ordinances for the conservation of nature or cultural heritage (excluding projects whose primary objectives are to promote the protection or restoration of such areas). Projects are also not to impose significant adverse impacts on designated conservation areas.	<p>1. As declared by Proclamation No. 2146 (1981): all areas declared by law as national parks, watershed reserves, wildlife preserves, sanctuaries; all areas set aside as aesthetic potential tourist spots; all areas which constitute the habitat of any endangered or threatened species of Philippine wildlife (flora and fauna); and all areas of unique historic, archaeological, or scientific interests fall under Environmentally Critical Area (ECA) Categories. As such, any project would have to obtain an Environmental Compliance Certificate (ECC) from the DENR, before the proceeding with operations.</p> <p>2. Section 30, Article 7 of Republic Act 10066 (Philippine Cultural Heritage Law) also states that any infrastructure project or architectural site development (whether government or nongovernment) shall include anthropological, archaeological and historical and heritage site conservation concerns in their Environmental Impact Assessment System.</p> <p>3. Republic Act 7586, NIPAS (National Integrated Protected Areas System) Act also prohibits the “Mutilating, defacing or destroying objects of natural beauty, or objects of interest to cultural communities (of scenic value” in declared protected areas.</p>	No gaps between Harmonized Policy and Government Laws on avoiding or mitigating adverse impact on physical cultural resources.	Not Applicable
<b>Compliance with national legislations and international treaties</b>	JICA confirms that projects comply with the laws or standards related to the environment and local communities in the central and local governments of host countries; it also confirms that projects conform to those governments’ policies and plans on the environment and local communities. JICA confirms that projects do not deviate significantly from the World Bank’s Safeguard Policies, and refers as a benchmark to the standards of international financial organizations; to internationally recognized standards, or international standards, treaties, and declarations, etc.; and to the good practices etc. of developed nations including Japan, when appropriate. (Sec.2/2.6/2, 3)	<p>The impacts on physical cultural resources resulting from project activity, not contravene either the borrower’s national legislation, or its obligations under relevant international environmental treaties and agreements, such as the Convention concerning the Protection of the World Cultural and Natural Heritage, 1972 (UNESCO World Heritage Convention). (3)</p> <p>The physical cultural resources management plan is consistent with the country’s overall policy framework and national legislation and takes into account institutional capabilities with regard to physical cultural resources. (9)</p>	The impacts on physical cultural resources resulting from project activity, not contravene either the borrower’s national legislation, or its obligations under relevant international environmental treaties and agreements, such as the Convention concerning the Protection of the World Cultural and Natural Heritage, 1972 (UNESCO World Heritage Convention)	<p>The 1987 Philippine Constitution declares that “<i>the State shall foster the preservation, enrichment and dynamic evolution of a Filipino culture based on the principle of unity in diversity in a climate of free artistic and intellectual expression. The Constitution likewise mandates the State to Conserve, develop, promote and popularize the nation’s historical and cultural heritage and resources, as well as artistic creations. It further provides that all the country’s artistic and historic wealth constitutes the cultural treasure of the nation and shall be under the protection of the State, which may regulate its disposition.</i>”</p> <p>The appropriate cultural agency shall closely collaborate with United Nations Educational Scientific and Cultural organization (UNESCO) National Commission of the Philippines in ensuring the conservation and management of world heritage sites of cultural and mixed sites category, in the Philippines. (RA 10066)</p>	No gaps between Harmonized Policy and Government Laws on compliance with national and international legislation/treaties.	Not Applicable
<b>Definition of physical cultural resources</b>	-	Also known as ‘cultural heritage’, ‘cultural patrimony’, ‘cultural assets’ or ‘cultural property’ and defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. (1)	Physical cultural resources, which are also known as ‘cultural heritage’, ‘cultural patrimony’, ‘cultural assets’ or ‘cultural property’, are defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance.	"Cultural property" refer to all products of human creativity by which a people and a nation reveal their identity, including churches, mosques and other places of religious worship, schools and natural history specimens and sites, whether public or privately-owned, movable or immovable, and tangible or intangible. (RA 10066)	No gaps between Harmonized Policy and Government Laws on definition of physical cultural resources.	Not Applicable

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.11	Harmonized Policy	Government laws on physical cultural resources	Gaps between Harmonized Policy and Government laws	The mechanisms to bridge gaps
<b>Core Principles</b>						
<b>Categorization</b>	<p>Projects that are likely to have a significant adverse impact on the environment and society, and the projects with complicated or unprecedented impacts that are difficult to assess, or projects with a wide range of impacts or irreversible impacts, are classified as Category A. Category A includes projects in sensitive sectors, projects that have characteristics that are liable to cause adverse environmental impacts, and projects located in or near sensitive areas.</p> <p><u>Sensitive Characteristics</u>  (1) Large-scale involuntary resettlement  (2) Large-scale groundwater pumping  (3) Large-scale land reclamation, land development, and land clearing  (4) Large-scale logging</p> <p><u>Sensitive Areas</u>  Projects in the following areas or their vicinity:  (1) National parks, nationally-designated protected areas (coastal areas, wetlands, areas for ethnic minorities or indigenous peoples and cultural heritage, etc. designated by national governments)  (2) Areas that are thought to require careful consideration by the country or locality</p> <p><u>Social Environment</u>  a) Areas with unique archeological, historical, or cultural value  b) Areas inhabited by ethnic minorities, indigenous peoples, or nomadic peoples with traditional ways of life, and other areas with special social value</p> <p>Projects are classified as Category B if their potential adverse impacts on the environment and society are less adverse than those of Category A projects. Generally, they are site-specific; few if any are irreversible; and in most cases, normal mitigation measures can be designed more readily.  (Sec.2/2.2/2, Sec.2/2.2/3, Appendix 3)</p>	<p>Following projects are classified as Category A or B, and are subject to the provisions of this policy:  (a) any project involving significant excavations, demolition, movement of earth, flooding, or other environmental changes; and  (b) any project located in, or in the vicinity of, a physical cultural resources site recognized by the borrower.  Projects specifically designed to support the management or conservation of physical cultural resources are individually reviewed, and are normally classified as Category A or B. (5)</p>	<p>Projects that are likely to have a significant adverse impact on the environment and society, and the projects with complicated or unprecedented impacts that are difficult to assess, or projects with a wide range of impacts or irreversible impacts, are classified as Category A. Category A includes projects in sensitive sectors, projects that have characteristics that are liable to cause adverse environmental impacts, and projects located in or near sensitive areas.</p> <p><u>Sensitive Characteristics</u>  (1) Large-scale involuntary resettlement  (2) Large-scale groundwater pumping  (3) Large-scale land reclamation, land development, and land clearing  (4) Large-scale logging</p> <p><u>Sensitive Areas</u>  Projects in the following areas or their vicinity:  (1) National parks, nationally-designated protected areas (coastal areas, wetlands, areas for ethnic minorities or indigenous peoples and cultural heritage, etc. designated by national governments)  (2) Areas that are thought to require careful consideration by the country or locality</p> <p><u>Social Environment</u>  a) Areas with unique archeological, historical, or cultural value  b) Areas inhabited by ethnic minorities, indigenous peoples, or nomadic peoples with traditional ways of life, and other areas with special social value</p> <p>Projects are classified as Category B if their potential adverse impacts on the environment and society are less adverse than those of Category A projects. Generally, they are site-specific; few if any are irreversible; and in most cases, normal mitigation measures can be designed more readily.</p>	<p>The Philippines' EIA System is the main instrument for ensuring that projects do not result in adverse impact to cultural properties in all stages of the EIA system beginning from screening, to categorization, assessment, review and eventual implementation. The system covers projects which have been declared as Environmentally Critical Projects (ECPs) or projects in Environmentally Critical Areas (ECAs).<sup>38</sup> Additionally, heavy industries, resource extractive industries, large-scale infrastructure projects and golf courses, are classified as Environmentally Critical Projects (ECP). (PP No.2146, PP No.803)</p> <p>The Philippine system classifies projects into four main categories in accordance with their potential environmental impact. The categories include:  Group I: ECPs under this category are required to secure an environmental compliance certificate (ECC) and to submit an EIS  Group II: Non-ECPs in ECAs under this category are required to secure an environmental compliance certificate (ECC) and to submit an EIS or IEE (depends on the project size)  Group III: Non-ECPs in Non-ECAs under this category are required to secure a CNC and to submit a project description  Group IV: Co-located Projects in either ECA or Non-ECA under this category are required to secure an environmental compliance certificate (ECC) and to submit an EIS  Group V: Unclassified Projects under this category are required to secure a CNC and to submit a project description</p>	<p>No gaps between Harmonized Policy and Government Laws on categorization</p>	<p>Not Applicable</p>
<b>Environmental Assessment</b>	<p>The impacts to be assessed with regard to environmental and social considerations include social impacts, such as cultural heritage. (Sec. 2. 2.3-1, Appendix 1. 3-1)</p>	<p>The borrower addresses impacts on physical cultural resources in projects as an integral part of the environmental assessment (EA) process. (4)</p> <p>To develop the TORs for the EA, the</p>	<p>The impacts to be assessed with regard to environmental and social considerations include social impacts, such as cultural heritage.</p> <p>To develop the TORs for the environmental and social considerations, the borrower, in consultation</p>	<p>Any infrastructure project or architectural site development (whether government or nongovernment) shall include anthropological, archaeological and historical and heritage site conservation concerns in their Environmental Impact Assessment System. (RA 10066)</p>	<p>No gaps between Harmonized Policy and Government Laws on Environmental Assessment</p>	<p>Not Applicable</p>

<sup>38</sup> PD 1586 (1978), Section 4.

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		<p>borrower, in consultation with the Bank, relevant experts, and relevant project-affected groups, identifies the likely physical cultural resources issues, if any, to be taken into account by the EA. The TORs normally specify that physical cultural resources be included in the baseline data collection phase of the EA. (6)</p> <p>The borrower assesses the project's potential impacts on likely affected physical cultural resources as an integral part of the EA process, in accordance with the Bank's EA requirements. (7)</p> <p>The borrower identifies appropriate measures for avoiding or mitigating these impacts as part of the EA process. These measures may range from full site protection to selective mitigation, including salvage and documentation, in cases where a portion or all of the physical cultural resources may be lost. (8)</p> <p>The Bank reviews, and discusses with the borrower, the findings and recommendations related to the physical cultural resources aspects of the EA, and determines whether they provide an adequate basis for processing the project. (10)</p>	<p>with JICA, relevant experts, and relevant project-affected groups, identifies the likely physical cultural resources issues, if any, to be taken into account by the environmental and social considerations. The TORs normally specify that physical cultural resources be included in the baseline data collection phase of the environmental and social considerations.</p> <p>The project proponents etc. assess the project's potential impacts on likely affected physical cultural resources as an integral part of the EA process, in accordance with the Bank's EA requirements. (7)</p> <p>The project proponents etc. identify appropriate measures for avoiding or mitigating these impacts as part of the environmental and social considerations process. These measures may range from full site protection to selective mitigation, including salvage and documentation, in cases where a portion or all of the physical cultural resources may be lost.</p> <p>The JICA reviews, and discusses with the project proponents etc., the findings and recommendations related to the physical cultural resources aspects of the EA, and determines whether they provide an adequate basis for processing the project. (10)</p>	<p>Environmentally critical projects (ECPs) with significant potential to cause negative environmental impacts are required to secure an environmental compliance certificate (ECC) and to submit an EIS.</p> <p>Projects that are not recognized as ECPs but that may cause negative environmental impacts because they are located in an environmentally critical area – like heritage zones - are required to secure an ECC and to submit an IEE.</p> <p>Adverse impacts on cultural properties are site-specific, as reflected in the Philippine EIA system which considers all areas declared by law as national parks, watershed reserves, wildlife preserves, sanctuaries; all areas set aside as aesthetic potential tourist spots; all areas which constitute the habitat of any endangered or threatened species of Philippine wildlife (flora and fauna); and all areas of unique historic, archaeological, or scientific interests fall under Environmentally Critical Area (ECA) Categories. As such, any project would have to obtain an Environmental Compliance Certificate (ECC) from the DENR, before the proceeding with operations.</p>		
<b>physical cultural resources management plan</b>	<p><u>Illustrative Environmental Impact Assessment Report for Category A Projects</u> The EIA report should include the following items</p> <p>- Environmental Management Plan (EMP): This describes mitigation, monitoring, and institutional measures to be taken during construction and operation in order to eliminate adverse impacts, offset them, or reduce them to acceptable levels. (Appendix 2)</p>	<p>The borrower develops a physical cultural resources management plan that includes measures for avoiding or mitigating any adverse impacts on physical cultural resources, provisions for managing chance finds, any necessary measures for strengthening institutional capacity, and a monitoring system to track the progress of these activities. (9) It may be incorporated in an Environmental Management Plan.</p>	<p>The EIA report for category A project should include Environmental Management Plan (EMP) which describes measures for avoiding or mitigating any adverse impacts on physical cultural resources, provisions for managing chance finds, any necessary measures for strengthening institutional capacity, and a monitoring system to track the progress of these activities.</p>	<p>Any infrastructure project or architectural site development (whether government or nongovernment) shall include anthropological, archaeological and historical and heritage site conservation concerns in their Environmental Impact Assessment System.(RA 10066) The EIA process acts as a safeguard mechanism to ensure all projects through the EMP required from project proponents. The EMP discusses the impacts of the project, as well as the mitigation measures and monitoring arrangements.</p>	<p>No gaps between Harmonized Policy and Government Laws on Environmental Assessment</p>	<p>Not Applicable</p>
<b>Involvement of stakeholders (Consultations)</b>	<p>Project proponents etc. consult with local stakeholders through means that induce broad public participation to a reasonable extent, in order to take into consideration the environmental and social factors in a way that is most suitable to local situations, and in order to reach an appropriate consensus.</p> <p>JICA encourages project proponents etc. to publicize in advance that they plan to consult with local stakeholders, with particular attention to directly affected people, in order to have meaningful meetings.</p> <p>In the case of Category A projects, JICA</p>	<p>The consultative process for the physical cultural resources component normally includes relevant project-affected groups, concerned government authorities, and relevant nongovernmental organizations in documenting the presence and significance of physical cultural resources, assessing potential impacts, and exploring avoidance and mitigation options. (11)</p>	<p>Project proponents etc. consult with local stakeholders through means that induce broad public participation to a reasonable extent, in order to take into consideration the environmental and social factors in a way that is most suitable to local situations, and in order to reach an appropriate consensus.</p> <p>JICA encourages project proponents etc. to publicize in advance that they plan to consult with local stakeholders, with particular attention to directly affected people, in order to have meaningful meetings.</p> <p>In the case of Category A projects, JICA encourages project proponents etc. to consult with local stakeholders about their understanding of</p>	<p>One of operating principles of the PEISS is that the EIA process shall be based on a timely, well-informed public participation of potentially affected communities, stakeholders in both direct and indirect impact areas need to be informed of, and consulted on, the project proposal at earliest EIA stage as possible.</p> <p>The projects which are required to submit EIS shall conduct the Public Scoping and the Public Hearing. If needed Public Consultation shall be conducted.</p> <p>The projects which are required to submit IEE shall conduct Public Hearing and/or Public Consultation If it is required.</p>	<p>No gaps between Harmonized Policy and Government Laws on Public Consultation</p>	<p>Not Applicable</p>

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.11	Harmonized Policy	Government laws on physical cultural resources	Gaps between Harmonized Policy and Government laws	The mechanisms to bridge gaps
	<p>encourages project proponents etc. to consult with local stakeholders about their understanding of development needs, the likely adverse impacts on the environment and society, and the analysis of alternatives at an early stage of the project, and assists project proponents as needed.</p> <p>In the case of Category B projects, JICA encourages project proponents etc. to consult with local stakeholders when necessary.</p> <p>JICA encourages project proponents etc. to prepare minutes of their meetings after such consultations occur.</p> <p>(Sec.2/2.4/1, 4, 5, 6)</p>		<p>development needs, the likely adverse impacts on the environment and society, and the analysis of alternatives at an early stage of the project, and assists project proponents as needed.</p> <p>In the case of Category B projects, JICA encourages project proponents etc. to consult with local stakeholders when necessary.</p> <p>JICA encourages project proponents etc. to prepare minutes of their meetings after such consultations occur.</p>			
<b>Capacity Building</b>	<p>JICA provides support for and examinations of the environmental and social considerations that project proponents etc. implement in accordance with Sections 2 and 3 of the guidelines, depending on the nature of cooperation projects. (Sec.1/1.5)</p>	<p>When the borrower's capacity is inadequate to manage physical cultural resources that may be affected by a Bank-financed project, the project may include components to strengthen that capacity. (16)</p> <p>Given that the borrower's responsibility for physical cultural resources management extends beyond individual projects, the Bank may consider broader capacity building activities as part of its overall country assistance program. (17)</p>	<p>JICA provides support for and examinations of the environmental and social considerations that project proponents etc. implement in accordance with Sections 2 and 3 of the JICA guidelines, depending on the nature of cooperation projects.</p>	<p>Not specification</p>	<p>No specification under the Philippines' law</p>	<p>Not Applicable</p>
<b>Information Disclosure</b>	<p>For Category A project, JICA publishes the status of host countries' submission of major documents on environmental and social considerations on its website. Prior to its environmental review, JICA also discloses EIA reports and environmental permit certifications 120 days prior to concluding agreement documents. JICA discloses a translated version of EIA reports, subject to approval by project proponents etc.</p> <p>For Category B project, JICA discloses EIA reports and environmental permit certifications, when these documents are submitted by project proponents etc.</p> <p>(Sec.3/3.2/3.2.1/(1), (2))</p> <p>In principle, project proponents etc. disclose information about the environmental and social considerations of their projects. JICA encourages project proponents etc. to disclose and present information about environmental and social considerations to local stakeholders. (Sec.2/2.1/1, 6)</p>	<p>The findings of the physical cultural resources component of the EA are disclosed as part of, and in the same manner as, the EA report. (12)</p> <p>(For a Category A project, the borrower provides for the initial consultation a summary of the proposed project's objectives, description, and potential impacts; for consultation after the draft EA report is prepared, the borrower provides a summary of the EA's conclusions. The borrower makes the draft EA report available at a public place accessible to project-affected groups and local NGOs. Any separate Category B report for a project is made available to project-affected groups and local NGOs. Public availability in the borrowing country and official receipt by the Bank of Category A reports and of any Category B EA report are prerequisites to Bank appraisal of these projects. (OP4.01 16, 17)</p>	<p>For Category A project, JICA publishes the status of host countries' submission of major documents on environmental and social considerations on its website. Prior to its environmental review, JICA also discloses EIA reports and environmental permit certifications 120 days prior to concluding agreement documents. JICA discloses a translated version of EIA reports, subject to approval by project proponents etc.</p> <p>For Category B project, JICA discloses EIA reports and environmental permit certifications, when these documents are submitted by project proponents etc.</p> <p>In principle, project proponents etc. disclose information about the environmental and social considerations of their projects. JICA encourages project proponents etc. to disclose and present information about environmental and social considerations to local stakeholders.</p>	<p>As a form of disclosure of the EIA findings, Public Hearing (PH) is required for all new ECPs for which public scoping was undertaken and for PEIS-based applications. Before the PH, relevant documents have to be opened to the public.</p> <p>Full copies of the EIA Report are made accessible at the concerned EMB Offices, libraries/development council offices of the host municipalities. Concerned Barangays are also provided with the Executive Summary of the EIA Report. Copy of ECC is also submitted to other permitting agencies including funding institutions.</p>	<p>No gaps between harmonized policy and government laws on information disclosure.</p>	<p>Not Applicable.</p>
<b>Monitoring</b>	<p>JICA confirms with project proponents etc. the results of monitoring the items that have significant environmental impacts. This is done in order to confirm that project proponents etc. are undertaking environmental and social considerations for projects that fall under Categories A, B, and</p>	<p>-</p>	<p>JICA confirms with project proponents etc. the results of monitoring the items that have significant environmental impacts. This is done in order to confirm that project proponents etc. are undertaking environmental and social considerations for projects that fall under Categories A, B, and FI.</p>	<p>The Proponents issued ECCs are primarily responsible for monitoring their projects. They are required to submit two kinds of monitoring reports, the ECC Compliance Monitoring Report (CMR) on semi-annual frequency and the Self-Monitoring Report (SMR) on a quarterly basis to the concerned EMB RO.</p> <p>During project implementation, LGUs are represented in</p>	<p>No gaps between harmonized policy and government laws on monitoring.</p>	<p>Not Applicable.</p>

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.11	Harmonized Policy	Government laws on physical cultural resources	Gaps between Harmonized Policy and Government laws	The mechanisms to bridge gaps
	FI. JICA discloses the results of monitoring conducted by project proponents etc. on its website to the extent that they are made public in project proponents etc. (Sec.3/3.2/3.2.2/1, 7)		JICA discloses the results of monitoring conducted by project proponents etc. on its website to the extent that they are made public in project proponents etc.	the Multi-partite Monitoring Teams (MMTs), teams which are composed of various stakeholders which generally form the pillar for local vigilance to project performance. Major features of the MMT are: 1. Provides appropriate checks and balances in monitoring of project implementation. 2. Validates the proponent's performance. 3. Recommends courses of action to EMB through the Compliance Monitoring and Validation Report (CMVR). The EMB-DENR remains to be the primary actor for the overall evaluation of the proponents monitoring and the MMTs validation.		



**Gaps between Relevant Regulations in the Philippines and  
JICA Guidelines as well as Safeguard Policies in the World Bank – EIA**



Gaps between Relevant Regulations in the Philippines and JICA Guidelines as well as Safeguard Policies in the World Bank – EIA

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.01	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws	The mechanisms to bridge gaps
<b>Objective and Basic Approach</b>						
<b>Objectives</b>	To ensure transparency, predictability, and accountability in its support for and examination of environmental and social considerations.	Environmental Assessment (EA) of projects proposed is required for Bank financing to help ensure that they are environmentally sound and sustainable, and thus to improve decision making.	To ensure transparency, predictability, and accountability in its support for and examination of environmental and social considerations.	To incorporate environmental considerations in planning a project as well as in determining the environment's impact on the project. (DAO 2003-30, Section1 b)	Basically, there is no gap between harmonized policy and the Philippines law	Not Applicable
<b>Procedure of EA</b>	JICA supports and examines appropriate environmental and social considerations undertaken by project proponents etc. to avoid or minimize development projects' impacts on the environment and local communities, and to prevent the occurrence of unacceptable adverse impacts.(1.4)	EA evaluates a project's potential environmental risks and impacts for preventive measures over mitigatory or compensatory measures, whenever feasible.	JICA supports and examines appropriate environmental and social considerations undertaken by project proponents etc. to avoid or minimize development projects' impacts on the environment and local communities, and to prevent the occurrence of unacceptable adverse impacts	EIA is a process that involves predicting and evaluating the likely impacts of a project (including cumulative impacts) on the environment during construction, commissioning, operation and abandonment. It also include designing appropriate preventive, mitigating, and enhancement measures addressing these consequences to protect the environment and the community's welfare". (Revised Procedural Manual for DAO 2003-30, 1.0.2))	Basically, there is no gap between harmonized policy and the Philippines law	Not Applicable
<b>Criteria of EA</b>	"Environmental and social considerations" means considering environmental impacts including air, water, soil, ecosystem, flora, and fauna, as well as social impacts including involuntary resettlement, respect for the human rights of indigenous people, and so on.(1.3.1) JICA confirms that projects comply with the laws or standards related to the environment and local communities in the central and local governments of host countries; it also confirms that projects conform to those governments' policies and plans on the environment and local communities. (2.6.2) JICA confirms that projects do not deviate significantly from the World Bank's Safeguard Policies, and refers as a benchmark to the standards of international financial organizations; to internationally recognized standards, or international standards, treaties, and declarations, etc.; and to the good practices etc. of developed nations including Japan, when appropriate. (2.6.3)	EA takes into account the natural environment (air, water, and land); human health and safety; social aspects (involuntary resettlement, indigenous peoples, and physical cultural resources); and transboundary and global environmental aspects. EA considers natural and social aspects in an integrated way. It also takes into account environmental action plans; the country's overall policy framework, national legislation, and institutional capabilities related to the environment and social aspects; and obligations of the country, pertaining to project activities, under relevant international environmental treaties and agreements.	"Environmental and social considerations" means considering environmental impacts including air, water, soil, ecosystem nm, flora, and fauna, as well as social impacts including involuntary resettlement, respect for the human rights of indigenous people, and so on. JICA confirms that projects comply with the laws or standards related to the environment and local communities in the central and local governments of host countries; it also confirms that projects conform to those governments' policies and plans on the environment and local communities. (2.6.2) JICA confirms that projects do not deviate significantly from the World Bank's Safeguard Policies, and refers as a benchmark to the standards of international financial organizations; to internationally recognized standards, or international standards, treaties, and declarations, etc.; and to the good practices etc. of developed nations including Japan, when appropriate.	The EIS System is concerned primarily with assessing the direct and indirect impacts of a project on the biophysical and human environment and ensuring that these impacts are addressed by appropriate environmental protection and enhancement measures. (DAO 2003-30, Section1 a) The specific criteria under the EIS systems are; a. Characteristics of the project or undertaking (Size of the project, Cumulative nature of impacts vis-à-vis other projects, Use of natural resources, Generation of waste and environment-related nuisance, Environment-related hazards and risk of accidents) b. Location of the project (Vulnerability of the project area to disturbance due to its ecological importance, endangered or protected status, Conformity of the proposed project to existing land use, based on approved zoning or on national laws and regulations, Relative abundance quality and regenerative capacity of natural resources in the area, including the impact absorptive capacity of the environment) c. Nature of the potential impact (Geographic extent to the impact and size of affected population, Magnitude and complexity of the impact, Likelihood, duration, frequency and reversibility of the impact.)	Under the EIS System in the Philippines, there are no specific rules relative to accounting of the transboundary and global environmental aspects.	EA should take into account the transboundary and global environmental aspect in consideration with international conventions and treaties.
<b>Core Principles</b>						
<b>EA Instruments</b>	JICA conducts an environmental review in accordance with the project category, and refers to the corresponding environmental checklists for each sector when conducting that review as appropriate.	A range of instruments can be environmental impact assessment (EIA), regional or sectoral EA, environmental audit, hazard or risk assessment, and environmental management plan (EMP).	JICA conducts an environmental review in accordance with the project category, and refers to the corresponding environmental checklists for each sector when conducting that review as appropriate.	The EIA Process has Screening, Scoping, EIA Study and Report Preparation, EIA Review and Evaluation, Decision Making, and Post-ECC Monitoring, Validation and Evaluation/Audit Stage. The EIA Coverage and Requirements Screening Checklist is the master checklist used in determining coverage of the assessment to be done. The Project Grouping Matrix is used to determine the grouping of a project.	No legislation and/or official guidelines exist regarding donor's responsibility	Not Applicable
<b>Environmental Screening</b>	Category A: Project proponents etc. must submit EIA reports. JICA publishes the status	Category A: A proposed project is classified as Category A if it is likely to	Category A: Project proponents etc. must submit EIA reports. JICA publishes the status of host	Covered projects: Group I or ECPs in either ECAs or NECAs;	Categorization of the project is different.	The project that requires full EIA in the Philippines could be adopted

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.01	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws	The mechanisms to bridge gaps
	<p>of host countries' submission of major documents on environmental and social considerations on its website. Prior to its environmental review, JICA also discloses the following: (1) EIA reports and environmental permit certifications, (2) RAPs for projects that will result in large-scale involuntary resettlement, and (3) IPPs for projects that address issues of indigenous people. Specifically, JICA discloses EIA reports 120 days prior to concluding agreement documents. JICA undertakes its environmental reviews based on the EIA and other documents submitted by project proponents etc.</p> <p>CategoryB: The scope of environmental reviews for Category B projects may vary from project to project, but it is narrower than that of Category A projects. JICA discloses the following: (1) EIA reports and environmental permit certifications, (2) RAPs for projects, and (3) IPPs for projects that will require measures for indigenous people, when these documents are submitted by project proponents etc.</p> <p>CategoryC: For projects in this category, environmental review will not proceed after categorization.</p> <p>Category FI: JICA examines the related financial intermediary or executing agency to see whether appropriate environmental and social considerations as stated in the guidelines are ensured for projects in this category.</p>	<p>have significant adverse environmental impacts that are sensitive, diverse, or unprecedented. For a Category A project, the borrower is responsible for preparing a report, normally an EIA (or suitably comprehensive regional or sectoral EA).</p> <p>Category B: A proposed project is classified as Category B if its potential adverse environmental impacts on human populations or environmentally important areas – including wetlands, forests, grasslands, and other national habitats – are less adverse than those of Category A projects. The findings and results of Category B EA are described in the project documentation (Project Appraisal Document and Project Information Document).</p> <p>Category C: A proposed project is classified as Category C if it is likely to have minimal or no adverse environmental impacts. Beyond screening, no further EA action is required for a Category C project.</p> <p>Category FI: A proposed is classified as Category FI if it involves investment of Bank funds through a financial intermediary, in subprojects that may result in adverse environmental impacts.</p>	<p>countries' submission of major documents on environmental and social considerations on its website. Prior to its environmental review, JICA also discloses the following: (1) EIA reports and environmental permit certifications, (2) RAPs for projects that will result in large-scale involuntary resettlement, and (3) IPPs for projects that address issues of indigenous people. Specifically, JICA discloses EIA reports 120 days prior to concluding agreement documents. JICA undertakes its environmental reviews based on the EIA and other documents submitted by project proponents etc.</p> <p>Category B: The scope of environmental reviews for Category B projects may vary from project to project, but it is narrower than that of Category A projects. JICA discloses the following: (1) EIA reports and environmental permit certifications, (2) RAPs for projects, and (3) IPPs for projects that will require measures for indigenous people, when these documents are submitted by project proponents etc.</p> <p>Category C: For projects in this category, environmental review will not proceed after categorization.</p> <p>Category FI: JICA examines the related financial intermediary or executing agency to see whether appropriate environmental and social considerations as stated in the guidelines are ensured for projects in this category.</p>	<p>Group II or NECPs in ECAs; Group III or NECPs in NECA) Group IV (Co-located projects in either ECA or NECA) Group V (Unclassified projects) <b>ECP (Environmentally Critical Projects):</b> Project or program that has high potential for significant negative environmental impact. <b>ECA (Environmentally Critical Areas):</b> Area delineated as environmentally sensitive such that significant environmental impacts are expected if certain types of proposed projects or programs are located, developed or implemented in it.</p> <p>EIA Report Types (For new projects): Groups I, II and IV are required either an (1) <u>Environmental Impact Statement (EIS)</u>, (2) <u>Programmatic EIS (PEIS)</u>, (3) <u>Initial Environmental Examination Report (IEER)</u> or (4) <u>IEE Checklist (IEEC)</u>, depending on project type, location, magnitude of potential impacts and project threshold. For NECA projects in Groups II and III are required (5) <u>Project Description Report (PDR)</u></p>	<p>There is no Category F1 under the Philippines EIS Systems.</p>	<p>Category A project of JICA. In the case that JICA classify the project as Category A while the PEISS doesn't require full EIA, the JICA and the EMB should discuss to harmonize the policy.</p>
<b>EA for Special Project Types</b>	<p>Category FI projects JICA examines the related financial intermediary or executing agency to see whether appropriate environmental and social considerations as stated in the guidelines are ensured for projects in this category. JICA also examines institutional capacity in order to confirm environmental and social considerations of the financial intermediary or executing agency, and, if necessary, requires that adequate measures be taken to strengthen capacity. The financial intermediary or executing agency examines the potential positive and negative environmental impacts of sub-projects and takes the necessary measures to avoid, minimize, mitigate, or compensate for potential negative impacts, as well as measures to promote positive impacts if any such measures are available. (3.2.1(4)) Measures Taken in an Emergency</p>	<p><i>Sector Investment Lending (SIL)</i> During the preparation of each proposed subproject, the project coordinating entity or implementing institution carries out appropriate EA according to country requirements and the requirements of this policy. The Bank's judging criteria are as follows: (a) screen subprojects (b) obtain the necessary expertise to carry out EA (c) review all findings and results of EA for individual subprojects (d) ensure implementation of mitigation measures (including, where applicable, an EMP) (e) monitor environmental conditions during project implementation  <i>Financial Intermediary Lending (FI)</i> The Bank requires that each FI screen proposed subprojects and ensure that subborrowers carry out appropriate EA</p>	<p><u>Category FI projects</u> JICA examines the related financial intermediary or executing agency to see whether appropriate environmental and social considerations as stated in the guidelines are ensured for projects in this category. JICA also examines institutional capacity in order to confirm environmental and social considerations of the financial intermediary or executing agency, and, if necessary, requires that adequate measures be taken to strengthen capacity. The financial intermediary or executing agency examines the potential positive and negative environmental impacts of sub-projects and takes the necessary measures to avoid, minimize, mitigate, or compensate for potential negative impacts, as well as measures to promote positive impacts if any such measures are available.  Measures Taken in an Emergency In an emergency—which means a case that must be dealt with immediately, such as restoration after natural disasters or post-conflict restoration—when it is clear that there is no time to follow the</p>	<p>No specification</p>	<p>No specification under the Philippines' law</p>	<p>Not Applicable</p>

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.01	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws	The mechanisms to bridge gaps
	<p>In an emergency—which means a case that must be dealt with immediately, such as restoration after natural disasters or post-conflict restoration—when it is clear that there is no time to follow the procedures of environmental and social considerations mentioned in the guidelines, JICA reports at an early stage to the Advisory Committee for Environmental and Social Considerations on categorization, judgment of emergency, and procedures to follow, and discloses a result. JICA asks advice from the Advisory Committee when it is necessary.</p>	<p>for each subproject. In appraising a proposed FI operation, the Bank reviews the adequacy of country environmental requirements relevant to the project and the proposed EA arrangements for subprojects, including the mechanisms and responsibilities for environmental screening and review of EA results.</p> <p><i>Emergency Operations under OP8.00</i> The policy set out in OP 4.01 normally applies to emergency operations processed under OP/BP 8.00, <i>Rapid Response to Crises and Emergencies</i>. The Bank requires at a minimum that</p> <p>(a) the extent to which the emergency was precipitated or exacerbated by inappropriate environmental practices be determined as part of the preparation of such projects</p> <p>(b) any necessary corrective measures be built into either the emergency operation or a future lending</p>	<p>procedures of environmental and social considerations mentioned in the guidelines, JICA reports at an early stage to the Advisory Committee for Environmental and Social Considerations on categorization, judgment of emergency, and procedures to follow, and discloses a result. JICA asks advice from the Advisory Committee when it is necessary.</p>			
<b>Institutional Capacity</b>	<p>JICA provides support for and examinations of the environmental and social considerations that project proponents etc. implement in accordance with Sections 2 and 3 of the guidelines, depending on the nature of cooperation projects. (1.5)</p>	<p>When the borrower has inadequate legal or technical capacity to carry out key EA related functions (such as review of EA, environmental monitoring, inspections, or management of mitigatory measures) for a proposed project, the project includes components to strengthen that capacity.</p>	<p>JICA provides support for and examinations of the environmental and social considerations that project proponents etc. implement in accordance with Sections 2 and 3 of the JICA guidelines, depending on the nature of cooperation projects.</p>	<p>The EIA process is undertaken by, among others, the project proponent and/or EIA consultant, EMB, a review committee, affected communities and other stakeholders. The EMB shall conduct regular consultations with DTI and other pertinent government agencies, affected industry groups and other stakeholders on continually streamlining the processing of ECC applications and post ECC implementation to fulfill the policy and objectives of the EIA systems. (DAO 2003-30)</p>	<p>Basically there are no gaps between Harmonized Policy and the Philippines' laws.</p>	<p>Not Applicable</p>
<b>Public Consultation</b>	<p>Project proponents etc. consult with local stakeholders through means that induce broad public participation to a reasonable extent, in order to take into consideration the environmental and social factors in a way that is most suitable to local situations, and in order to reach an appropriate consensus. JICA encourages project proponents etc. to publicize in advance that they plan to consult with local stakeholders, with particular attention to directly affected people, in order to have meaningful meetings. In the case of Category A projects, JICA encourages project proponents etc. to consult with local stakeholders about their understanding of development needs, the likely adverse impacts on the environment and society, and the analysis of alternatives at an early stage of the project, and assists project proponents as needed. (2.4) Consultations with relevant stakeholders, such as local residents, should take place if necessary</p>	<p>For all Category A and B projects proposed for IBRD or IDA financing, during the EA process, the borrower consults project-affected groups and local nongovernmental organizations (NGOs) about the project's environmental aspects and takes their views into account. The borrower initiates such consultations as early as possible. For Category A projects, the borrower consults these groups at least twice: (a) shortly after environmental screening and before the terms of reference for the EA are finalized; and (b) once a draft EA report is prepared. In addition, the borrower consults with such groups throughout project implementation as necessary to address EA-related issues that affect them</p>	<p>Project proponents etc. consult with local stakeholders through means that induce broad public participation to a reasonable extent, in order to take into consideration the environmental and social factors in a way that is most suitable to local situations, and in order to reach an appropriate consensus. JICA encourages project proponents etc. to publicize in advance that they plan to consult with local stakeholders, with particular attention to directly affected people, in order to have meaningful meetings. In the case of Category A projects, JICA encourages project proponents etc. to consult with local stakeholders about their understanding of development needs, the likely adverse impacts on the environment and society, and the analysis of alternatives at an early stage of the project, and assists project proponents as needed. Consultations with relevant stakeholders, such as local residents, should take place if necessary throughout the preparation and implementation stages of a project.</p>	<p>As part of the social preparation process at pre-Scoping, Information, Education and Communication (IEC) is now explicitly required at the minimum of PEIS/EIS-based applications for which Public Scoping is a requirement. The IEC serves as a basis for preliminary identification of stakeholders and related issues in preparation for the Scoping proper. The conduct of the EIA Study shall include local stakeholders, who may serve as local expert sources, aides/guides and resource persons in primary data collection to optimize access to indigenous knowledge of the environment. As a form of disclosure of the EIA findings, Public Hearing is required for all new ECPs for which Public Scoping was undertaken and for PEIS-based applications. If necessary EMB should conduct Public Consultations. For IEE-Based ECC Applications, no public hearing/consultation is required unless requested by EMB or the funding agency.</p>	<p>Basically there are no gaps between Harmonized Policy and the Philippines' laws.</p>	<p>Not Applicable</p>

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	<p>throughout the preparation and implementation stages of a project. Holding consultations is highly desirable, especially when the items to be considered in the EIA are being selected, and when the draft report is being prepared. (Appendix 2)</p> <p>In the case of Category B projects, JICA encourages project proponents etc. to consult with local stakeholders when necessary. (2.4)</p>		<p>Holding consultations is highly desirable, especially when the items to be considered in the EIA are being selected, and when the draft report is being prepared.</p> <p>In the case of Category B projects, JICA encourages project proponents etc. to consult with local stakeholders when necessary.</p>			
<b>Disclosure</b>	<p>In principle, project proponents etc. disclose information about the environmental and social considerations of their projects.</p> <p>JICA encourages project proponents etc. to disclose and present information about environmental and social considerations to local stakeholders.</p> <p>Project proponents etc. disclose information well in advance when they have meetings with local stakeholders in cooperation with JICA. On these occasions, JICA supports project proponents etc. in the preparation of documents in an official or widely used language and in a form understandable by local people. (2.1/1, 6,7)</p> <p>For Category A project, JICA publishes the status of host countries' submission of major documents on environmental and social considerations on its website. Prior to its environmental review, JICA also discloses EIA reports and environmental permit certifications 120 days prior to concluding agreement documents. JICA discloses a translated version of EIA reports, subject to approval by project proponents etc.</p> <p>For Category B project, JICA discloses EIA reports and environmental permit certifications, when these documents are submitted by project proponents etc. (Sec.3/3.2/3.2.1/(1), (2))</p>	<p>For meaningful consultations between the borrower and project-affected groups and local NGOs on all Category A and B projects proposed for IBRD or IDA financing, the borrower provides relevant material in a timely manner prior to consultation and in a form and language that are understandable and accessible to the groups being consulted.</p> <p>For a Category A project, the borrower provides for the initial consultation a summary of the proposed project's objectives, description, and potential impacts. In addition, for a Category A project, the borrower makes the draft EA report available at a public place accessible to project-affected groups and local NGOs.</p> <p>Any separate Category B report for a project proposed for IDA financing is made available to project-affected groups and local NGOs.</p>	<p>In principle, project proponents etc. disclose information about the environmental and social considerations of their projects.</p> <p>JICA encourages project proponents etc. to disclose and present information about environmental and social considerations to local stakeholders.</p> <p>Project proponents etc. disclose information well in advance when they have meetings with local stakeholders in cooperation with JICA. On these occasions, JICA supports project proponents etc. in the preparation of documents in an official or widely used language and in a form understandable by local people.</p> <p>For Category A project, JICA publishes the status of host countries' submission of major documents on environmental and social considerations on its website. Prior to its environmental review, JICA also discloses EIA reports and environmental permit certifications 120 days prior to concluding agreement documents. JICA discloses a translated version of EIA reports, subject to approval by project proponents etc.</p> <p>For Category B project, JICA discloses EIA reports and environmental permit certifications, when these documents are submitted by project proponents etc.</p>	<p>As a form of disclosure of the EIA findings, Public Hearing (PH) is required for all new ECPs for which public scoping was undertaken and for PEIS-based applications. Before the PH, relevant documents have to be opened to the public.</p> <p>Full copies of the EIA Report are made accessible at the concerned EMB Offices, libraries/development council offices of the host municipalities. Concerned Barangays are also provided with the Executive Summary of the EIA Report. Copy of ECC is also submitted to other permitting agencies including funding institutions.</p>	<p>Basically there are no gaps between Harmonized Policy and the Philippines' laws.</p>	<p>Not Applicable</p>
<b>Monitoring Implementation</b>	<p>JICA confirms with project proponents etc. the results of monitoring the items that have significant environmental impacts. This is done in order to confirm that project proponents etc. are undertaking environmental and social considerations for projects that fall under Categories A, B, and FI.</p> <p>The information necessary for monitoring confirmation by JICA must be supplied by project proponents etc. by appropriate means, including in writing. When necessary, JICA may also conduct its own investigations.</p> <p>JICA discloses the results of monitoring conducted by project proponents etc. on its website to the extent that they are made public in project proponents etc. (3.2.2/1,2, 7)</p>	<p>The borrower reports on</p> <p>(a) compliance with measures agreed with the Bank on the basis of the findings and results of the EA, including implementation of any EMP</p> <p>(b) the status of mitigatory measures</p> <p>(c) the findings of monitoring programs</p> <p>The Bank bases measures set out in the legal agreements, any EMP, and other project documents.</p>	<p>JICA confirms with project proponents etc. the results of monitoring the items that have significant environmental impacts. This is done in order to confirm that project proponents etc. are undertaking environmental and social considerations for projects that fall under Categories A, B, and FI.</p> <p>The information necessary for monitoring confirmation by JICA must be supplied by project proponents etc. by appropriate means, including in writing. When necessary, JICA may also conduct its own investigations.</p> <p>JICA discloses the results of monitoring conducted by project proponents etc. on its website to the extent that they are made public in project proponents etc.</p>	<p>The Proponents issued ECCs are primarily responsible for monitoring their projects. They are required to submit two kinds of monitoring reports, the ECC Compliance Monitoring Report (CMR) on semi-annual frequency and the Self-Monitoring Report (SMR) on a quarterly basis to the concerned EMB RO.</p> <p>MMT also should submit the generic Compliance Monitoring and Validation Report (CMVR) semi-annually to the concerned EMB RO.</p> <p>All monitoring reports, that is SMR, CMR and CMVR by MMT are to be disclosed.</p>	<p>Basically there are no gaps between Harmonized Policy and the Philippines' laws.</p>	<p>Not Applicable</p>

**Gaps between Relevant Regulations in the Philippines and  
JICA Guidelines as well as Safeguard Policies in the World Bank – Involuntary Resettlement**



Gaps between Relevant Regulations in the Philippines and JICA Guidelines as well as Safeguard Policies in the World Bank – Involuntary Resettlement

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.12	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws	The mechanisms to bridge gaps
<b>Objective</b>						
<b>Avoid involuntary resettlement</b>	Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives.	Involuntary resettlement should be avoided where feasible	Avoid involuntary resettlement and adverse impacts on people and communities, wherever feasible.	Private property shall not be taken for public use without just compensation. (1987 the Philippine Constitution) By policy, involuntary resettlement and relocation of ICC/IPs should be avoided where feasible. (LARRIP Policy, 2007)	Basically there are no gaps between Harmonized Policy and the Philippines' laws.	Not Applicable
<b>Minimize involuntary resettlement</b>	When, after such an examination, avoidance is proved unfeasible, effective measures to minimize impact and to compensate for losses must be agreed upon with the people who will be affected.	Minimize involuntary resettlement by exploring all viable alternative project designs	If displacement is unavoidable, minimize involuntary resettlement by: (i) exploring alternative project designs; (ii) Effective measures to minimize impact in consultation with the people who are affected.	The proponent shall consider measures to minimize adverse environmental impacts on human health and safety. (based on DAO 2003-30)	Basically no gaps between Harmonized Policy and Government Laws.	Not Applicable
<b>Mitigate adverse social impacts</b>	People who must be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported by project proponents etc. in a timely manner.	Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits.	Where IR is unavoidable, effective measures to mitigate adverse social and economic impacts on affected persons by: (a) providing compensation for loss of assets at replacement cost; (b) ensuring that resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of those affected (c) improve or at least restore the livelihoods and standards of living of displaced persons, and (d) improve living conditions among displaced persons through provision of adequate housing with security of tenure at resettlement sites.	ibid	Basically no gaps between Harmonized Policy and Government Laws.	Not Applicable
<b>Core principle</b>						
<b>Screening</b>	JICA classifies projects into four categories according to the extent of environmental and social impacts, taking into account an outline of project, scale, site condition, etc. JICA requests that Project proponents etc.. fill in the screening form found in Appendix 4; the information in this form will be a reference for the categorization of proposed projects.	-	Every development intervention will be screened, as early as possible in the project cycle, to identify the people who may be beneficially and adversely affected, and to determine the scope of a social assessment to assess those affects and impacts.	Under the Philippines' EIA System, the project is classified into five categories according to the extent of environmental and social impacts, taking into account an outline of project, scale, site condition, etc.	Basically no gaps between Harmonized Policy and Government Laws.	Not Applicable
<b>Categorization</b>	Projects that are likely to have a significant adverse impact on the environment and society are categorized as "Category A" even if they are not included in the sectors, characteristic, or areas on the list. Sensitive Characteristics (1) Large-scale involuntary resettlement	Project displaces fewer than 200 people & entails Minor Resettlement impacts namely – a) all the DPs lose less than 10% of their land, regardless of the number of APs b) the remainder of their land is economically viable; c) they have no need for physical relocation  Project that displace more than 200 people and entail major impacts	Categorize impacts by "significance" and define the scale of impacts – both direct and indirect – with particular attention to economic and livelihood impacts Plan mitigations for all types of losses in the RP	The project is categorized by the contents of the projects and the project site into five groups.	Basically no gaps between Harmonized Policy and Government Laws.	Not Applicable
<b>Resettlement Plan</b>	For projects that will result in large-scale involuntary resettlement, resettlement action	To cover the direct social and economic impacts that that are caused by the	For all interventions that involve resettlement or physical or economic displacement, a resettlement	A Land Acquisition Plan and Resettlement Action Plan (LAPRAP)	There is no specification under the Pihlippines' national law.	All agency shall follow the DPWH IROW Procedural Manual. In addition to that, the

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.12	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws	The mechanisms to bridge gaps
	plans must be prepared and made available to the public. In preparing a resettlement action plan, consultations must be held with the affected people and their communities based on sufficient information made available to them in advance.	involuntary taking of land and/or the involuntary restriction of access to legally designated parks and protected areas, the borrower will prepare a Resettlement plan or resettlement policy framework . The RP or framework will include measures to ensure that the displaced persons are provided assistance during relocation; provided with residential housing, or housing sites, or as required agricultural sites; offered transitional support; provided with development assistance in addition to compensation.	plan will be prepared which will establish the entitlements of all categories of affected persons (including host communities), with particular attention paid to the needs of the poor and the vulnerable. The RP will lay down appropriate time-bound actions and budgets, and the full costs of resettlement, compensation, and rehabilitation will be included in the presentation of the costs and benefits of the development intervention.	shall be prepared for all projects using a standardized compensation package. (DPWH DO No.5 and 327, Series of 2003)	As for the project by the DPWH, there is legislation to prepare the resettlement plan. However there are no specifications to includes public participation, grievance mechanism and monitoring imethods nto the Resettlement Plan.	Resettlement Plan should include public participation, grievence mechanism and monitoring.methods.
<b>Alternatives</b>	Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives.	Assess all viable alternative project designs to avoid, where feasible, or minimize involuntary resettlement.	Multiple alternative proposals must be examined to avoid or minimize involuntary resettlement and physical, or economic displacement and to choose a better project option while balancing environmental social and financial costs and benefits.	Not Specificaion	No Specification under the Pihlippines' law	Not Applicable
<b>Social Assessment</b>	The impacts to be assessed with regard to environmental and social considerations. These also include social impacts, including migration of population and involuntary resettlement, local economy such as employment and livelihood, utilization of land and local resources, social institutions such as social capital and local decision-making institutions, existing social infrastructures and services, vulnerable social groups such as poor and indigenous peoples, equality of benefits and losses and equality in the development process, gender, children's rights, cultural heritage, local conflicts of interest, infectious diseases such as HIV/AIDS, and working conditions including occupational safety.	Through census and socio-economic surveys of the affected population, identify, assess, and address the potential economic and social impacts of the project that are caused by involuntary taking of land (e.g. relocation or loss of shelter, loss of assets or access to assets, loss of income sources or means of livelihood, whether or not the affected person must move to another location) or involuntary restriction of access to legally designated parks and protected areas.	Assess at an early stage of the project cycle the potential social and economic impacts caused by involuntary taking of land (e.g. relocation or loss of shelter, loss of assets or access to assets, loss of income sources or means of livelihood, whether or not the affected person must move to another location) or involuntary restriction of access to legally designated parks and protected areas and to determine who will be eligible for compensation and assistance.	Not Specificaion	No Specification under the Pihlippines' law	Social impact should be assessed causing by involuntary resettlement.
<b>Involvement of stakeholders</b>	Appropriate participation by affected people and their communities must be promoted in the planning, implementation, and monitoring of resettlement action plans and measures to prevent the loss of their means of livelihood.	Consult project-affected persons, host communities and local nongovernmental organizations, as appropriate. Provide them opportunities to participate in the planning, implementation, and monitoring of the resettlement program, especially in the process of developing and implementing the procedures for determining eligibility for compensation benefits and development assistance (as documented in a resettlement plan), and for establishing appropriate and accessible grievance mechanisms. Pay particular attention to the needs of vulnerable groups among those displaces, especially those below the poverty line, the landless, the elderly, women and children, Indigenous Peoples, ethnic minorities, or other displaced persons who may not be protected through national land compensation legislation.	Consult project-affected persons, host communities and local nongovernmental organizations, as appropriate. Provide them opportunities to participate in the planning, implementation, and monitoring of the resettlement program, especially in the process of developing and implementing the procedures for determining eligibility for compensation benefits and development assistance (as documented in a resettlement plan), and for establishing appropriate and accessible grievance mechanisms. Pay particular attention to the needs of vulnerable groups among those displaces, especially those below the poverty line, the landless, the elderly, women and children, Indigenous Peoples, ethnic minorities, or other displaced persons who may not be protected through national land compensation legislation.	The project proponent should conduct barangay-level Public Consultation Meeting (PCMs) during formulation of LAPRAP (IROW Procedural Manual, 2003)  Women, elderly who are among the PAPs shall likewise be consulted and mobilized to participate in the consultation meeting, and discussed with them the socio-cultural implication of the Resettlement Action Plan. (LARRIP Policy, 2007)	There is no specification under the Pihlippines' national law. There are no significant gaps between harmonized policy and the DPWH regulations.	All projects in the Philippines should conduct public involuvement activities during formation of the resettlement plans.

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.12	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws	The mechanisms to bridge gaps
<b>Existing social and cultural institutions</b>	The impacts to be assessed with regard to environmental and social considerations. These also include social impacts, including social institutions such as social capital and local decision-making institutions, existing social infrastructures and services, vulnerable social groups such as poor and indigenous peoples.	To the extent possible, the existing social and cultural institutions of resettlers and any host communities are preserved and resettlers' preferences with respect to relocating in pre-existing communities and groups are honoured.	Ensure that the existing social and cultural institutions of the resettlers and any host communities are supported and used to the extent possible, including legal, policy and institutional framework of the country to the extent that the intent and spirit of the IR policy is maintained.  Projects must be adequately coordinated so that they are accepted in manner that is socially appropriate to the country and locality in which the Project is planned.	No specification	There is no specification under the Philippines' laws	Not Applicable
<b>Definition of displaced persons</b>	People who must be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported by project proponents etc. in a timely manner.	1) those who have formal legal rights to land (including customary and traditional rights recognized under the laws of the country); 2) those who do not have formal legal rights to land at the time the census begins but have a claim to such land or assets—provided that such claims are recognized under the laws of the country or become recognized through a process identified in the resettlement plan 3) those who have no recognizable legal right or claim to the land they are occupying.	1) those who have formal legal rights to land (including customary and traditional rights recognized under the laws of the country); 2) those who do not have formal legal rights to land at the time the census begins but have a claim to such land or assets—provided that such claims are recognized under the laws of the country or become recognized through a process identified in the resettlement plan 3) those who have no recognizable legal right or claim to the land they are occupying.	'Displaced Persons' refers to persons who are affected due to (a) the taking of land and other assets resulting in (i) involuntary relocation or loss of shelter; (ii) loss of productive assets or access to productive assets; or (iii) loss of income source or means of livelihood, whether or not the affected persons must move to another location. (DPWH, Policy Framework for Land Acquisition, Resettlement, and Rehabilitation)	There is no specification under the Philippines' national laws. Basically no gaps between Harmonized Policy and the DPWH regulation.	Not Applicable
<b>Vulnerable group</b>	Appropriate consideration must be given to vulnerable social groups, such as women, children, the elderly, the poor, and ethnic minorities, all members of which are susceptible to environmental and social impacts and may have little access to decision-making processes within society.	Particular attention must be paid to the needs of the vulnerable groups among those displaced, especially those below the poverty line, landless, elderly, women and children, ethnic minorities etc.	Particular attention must be paid to the needs of the vulnerable groups among those displaced, especially those below the poverty line, landless, elderly, women and children, ethnic minorities etc.	By policy, involuntary resettlement and relocation of ICC/IPs should be avoided where feasible. (LARRIP Policy, 2007)	There is no specification under the Philippines' national laws. Basically no gaps between Harmonized Policy and the DPWH regulation.	Not Applicable
<b>Replacement Cost</b>	Prior compensation, at full replacement cost, must be provided as much as possible.	The methodology to be used in valuing losses to determine their replacement cost	The methodology to be used in valuing losses to determine their replacement cost	The implementation agency shall pay the property owner the amount equivalent to the sum of the value of the property based on the current zonal valuation of the Bureau of Internal Revenue (BIR). In case the owner disagrees with the price based on the BIR zonal valuation, the Implementing Agency shall negotiate with the owners the purchase price which shall not be higher than the fair market value to be determined by using the following relevant standards; The implementation agency shall determine the valuation of the improvements and/or structures on the land to be acquired using the replacement cost method. (RA8974)	The zonal valuation of the BIR is different from the replacement cost. The valuation of the improvement and/or structures on the land shall be determined using the replacement cost method.	The value of the land should be considered the replacement cost.
<b>Capacity Building</b>	JICA makes efforts to enhance the comprehensive capacity of organizations and operations in order for project proponents etc., to have consideration for	Financing of technical assistance to strengthen the capacities of agencies responsible for resettlement, or of affected people to participate more effectively in	Assist in building capacity of DMCs on best practice on involuntary resettlement planning and implementation	No specification	There is no specification under the Philippines' law	Not Applicable

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.12	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws	The mechanisms to bridge gaps
	environmental and social factors, appropriately and effectively, at all times	resettlement operations.	Financing of technical assistance to strengthen the capacities of agencies responsible for resettlement, or of affected people to participate more effectively in resettlement operations.			
<b>Grievance procedures</b>	Appropriate and accessible grievance mechanisms must be established for the affected people and their communities.	A grievance redress mechanisms for simplicity, accessibility, affordability, and accountability	A grievance redress mechanisms for simplicity, accessibility, affordability, and accountability	There is no established grievance mechanism for land acquisition. The people who opposes have to tell their grievance to the project proponent or the Court. LARRIP Policy (2007) stipulates to establish a grievance mechanism.	In the Philippines, there are no regulations about establishment of the grievance mechanisms. DPWH policy basically follows WB's policy.	All project proponent shall establish a grievance redress mechanisms for simplicity, accessibility, affordability, and accountability
<b>Information Disclosure</b>	For projects that will result in large-scale involuntary resettlement, resettlement action plans must be prepared and made available to the public. In preparing a resettlement action plan, consultations must be held with the affected people and their communities based on sufficient information made available to them in advance.	Disclose draft resettlement plans, including documentation of the consultation process, in a timely manner, before appraisal formally begin, in an accessible place and in a form and language that are understandable to key stakeholders.	Disclose the resettlement plan including documentation of the consultation process, in a form and language(s) accessible to key stakeholders, civil society, particularly affected groups and the general public in an accessible place for a reasonable minimum period.	No regulations Under the IROW Procedural Manual, barangay-level Public Consultation Meetings to open the project description during the formulation of LAPRAP.	In the Philippines, there are no regulations to make rule about information disclosure. DPWH policy basically follows WB's policy.	The project proponent shall disclose resettlement plan in a form and languages accessible to key stakeholders, civil society, particularly affected groups and the general public in an accessible place for a reasonable minimum period.
<b>Monitoring</b>	After projects begin, project proponents etc. monitor whether any unforeseeable situations occur and whether the performance and effectiveness of mitigation measures are consistent with the assessment's prediction. They then take appropriate measures based on the results of such monitoring.	The borrower is responsible for adequate monitoring & evaluation of the activities set forth in the resettlement instrument.	The borrower is responsible for adequate monitoring & evaluation of the activities set forth in the resettlement instrument. It is desirable that the project proponents monitor: (i) whether any situations that were unforeseeable before the project began have arisen; (ii) the implementation situation and the effectiveness of the mitigation measures prepared in advance, and that they then take appropriate measures based on the results of such monitoring (iii) involve independent external experts for resettlement monitoring (iv) monitoring reports must be made public and additional steps to be taken, if required.	No regulation LARRIP Policy (2007) states that both internal monitoring and external monitoring should be conducted periodically in order to verify the implementation of land acquisition and resettlement based on the resettlement plan.	In the Philippines, there are no regulations to make rule about monitoring.	The project proponent shall conduct adequate monitoring and evaluation in accordance to the WB safeguard policy.

**Gaps between Relevant Regulations in the Philippines and  
JICA Guidelines as well as Safeguard Policies in the World Bank – Indigenous Peoples**



Appendix 8-1 Gaps between Relevant Regulations in the Philippines and JICA Guidelines as well as Safeguard Policies in the World Bank – Indigenous Peoples

Aspect	JICA Guidelines for Environmental and Social Consideration (April 2010)	World Bank OP4.10	Harmonized Policy	Government Laws	Gaps between Harmonized Policy and Government Laws	The Mechanisms to bridge gaps
Objective						
Term		Indigenous Peoples may be referred to in different countries by such terms as "indigenous ethnic minorities," "aboriginals," "hill tribes," "minority nationalities," "scheduled tribes," or "tribal groups."	Indigenous Peoples may be referred to in different countries by such terms as "indigenous ethnic minorities," "aboriginals," "hill tribes," "minority nationalities," "scheduled tribes," or "tribal groups."	In the Philippines, it is called "Indigenous Peoples" or "Indigenous Cultural Communities". (IPRA)	There are no significant gap between the harmonized policy and the Philippines' law	Not Applicable
Characteristics of Indigenous Peoples		"Indigenous Peoples" is used in a generic sense to refer to a distinct, vulnerable, social and cultural group possessing the following characteristics in varying degrees: (a) self-identification as members of a distinct indigenous cultural group and recognition of this identity by others; (b) collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories (c) customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and (d) an indigenous language, often different from the official language of the country or region.	"Indigenous Peoples" is used in a generic sense to refer to a distinct, vulnerable, social and cultural group possessing the following characteristics in varying degrees: (a) self-identification as members of a distinct indigenous cultural group and recognition of this identity by others; (b) collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories (c) customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and (d) an indigenous language, often different from the official language of the country or region.	Indigenous Cultural Communities/Indigenous Peoples refer to a group of people or homogenous societies identified by self-ascription and ascription by other, who have continuously lived as organized community on communally bounded and defined territory, and who have, under claims of ownership since time immemorial, occupied, possessed customs, tradition and other distinctive cultural traits, or who have, through resistance to political, social and cultural inroads of colonization, non-indigenous religions and culture, became historically differentiated from the majority of Filipinos. (IPRA)	There are no significant gap between the harmonized policy and the Philippines' law	Not Applicable
Objective	Any adverse impacts that a project may have on indigenous peoples are to be avoided when feasible by exploring all viable alternatives. When, after such an examination, avoidance is provided unfeasible, effective measures must be taken to minimize impacts and to compensate indigenous peoples for their losses.	To include measures to (a) avoid potentially adverse effects on the Indigenous Peoples' communities; or (b) when avoidance is not feasible, minimize, or compensate for such effects.	Any adverse impacts that a project may have on indigenous peoples are to be avoided when feasible by exploring all viable alternatives. When, after such an examination, avoidance is provided unfeasible, effective measures must be taken to minimize impacts and to compensate indigenous peoples for their losses.	a. Ensure genuine participation of Indigenous Cultural Communities/Indigenous Peoples (ICCs/IPs) in decision-making through the exercise of their right to Free and Prior Informed Consent (FPIC), whenever applicable; b. Protect the rights of ICCs/IPs in the introduction and implementation of plans, programs, projects, activities and other undertakings that will impact upon their ancestral domains to ensure their economic, social and cultural well-being; c. Provide the procedure and the standards in the conduct of field-based investigation (FBI) and FPIC process, charging of fees, compensation for damages, and imposition of administrative sanctions for intentional commission of prohibited acts and omissions as hereinafter provided; and d. Ensure just and equitable partnership in environmental management, land use, development, utilization and exploitation of resources within ancestral domains as well as benefit sharing, between and among the concerned ICC/IP community and the prospective investor, government agency, local government unit (LGU), non-government organization (NGO) and other entities desiring to collaborate in such undertaking, when FPIC is given. (NCIP AO No.1 series of 2006)	There are no significant gap between the harmonized policy and the Philippines' law	Not Applicable
Project Preparation						
Screening		Early in project preparation, the Bank undertakes a screening to determine whether Indigenous Peoples are present in, or have collective attachment to, the project area. The Bank may follow the borrower's framework for identification of Indigenous Peoples during project screening, when that framework is consistent with this policy.	Early in project preparation, JICA undertakes a screening to determine whether Indigenous Peoples are present in, or have collective attachment to, the project area. JICA may follow the borrower's framework for identification of Indigenous Peoples during project screening, when that framework is consistent with this policy.	All proponents of project that will be conducted in ancestral domains or effect any impact to the IPs should apply the FPIC process. In the event that the Commission officially approves a Master List of Ancestral Domain Areas, the immediate action to be taken is for the officer duly designated at the regional office to immediately determine whether the project site falls within, or overlaps with, a known ancestral domain area as appearing in the Master List of Ancestral		

Aspect	JICA Guidelines for Environmental and Social Consideration (April 2010)	World Bank OP4.10	Harmonized Policy	Government Laws	Gaps between Harmonized Policy and Government Laws	The Mechanisms to bridge gaps
				Domains. If there hasn't been the list, the FBIC team will determine the areas affected and the ICCs/IPs whose consent is to be obtained. (NCIP AO No.1 series of 2006)		
Categorization	<p>Projects that are likely to have a significant adverse impact on the environment and society are categorized as "Category A" even if they are not included in the sectors, characteristic, or areas on the list.</p> <p>Sensitive Areas b) Areas inhabited by ethnic minorities, indigenous peoples, or nomadic peoples with traditional ways of life, and other areas with special social value</p> <p>Projects are classified as Category B if their potential adverse impacts on the environment and society are less adverse than those of Category A projects. Generally, they are site-specific; few if any are irreversible; and in most cases, normal mitigation measures can be designed more readily.</p>	No categorization system	<p>Projects that are likely to have a significant adverse impact on the environment and society are categorized as "Category A" even if they are not included in the sectors, characteristic, or areas on the list.</p> <p>Sensitive Areas b) Areas inhabited by ethnic minorities, indigenous peoples, or nomadic peoples with traditional ways of life, and other areas with special social value</p> <p>Projects are classified as Category B if their potential adverse impacts on the environment and society are less adverse than those of Category A projects. Generally, they are site-specific; few if any are irreversible; and in most cases, normal mitigation measures can be designed more readily.</p>	Projects are categorized two groups depended on the nature and extent of the proposed plan, project, program or activity sought to be introduced into any ancestral domain area. (NCIP AO No.1 series of 2006)	There are no significant gap between the harmonized policy and the Philippines' law	Not Applicable
Indigenous Peoples Plan	<p>For some Category A projects that will require the measures for indigenous people, an IPP must be submitted.</p> <p>It is desirable that the IPP include the elements laid out in the World Bank Safeguard Policy, OP4.10, Annex B. JICA's funding of projects is provided to a financial intermediary or executing agency; the selection and appraisal of the sub-projects is substantially undertaken by such an institution only after JICA's approval of the funding. In such cases, JICA examines the related financial intermediary to see whether appropriate environmental and social considerations as stated in the guidelines are ensured for projects in this category. JICA also examines institutional capacity in order to confirm environmental and social considerations of the financial intermediary.</p>	<p>The borrower prepares an Indigenous Peoples Plan (IPP) that sets out the measures through which the borrower will ensure (a) Indigenous Peoples affected by the project receive culturally appropriate social and economic benefits; and (b) where potential adverse effects on Indigenous Peoples are identified, those adverse effects are avoided, minimized, mitigated, or compensated for.</p> <p>Some projects involve the preparation and implementation of annual investment programs or multiple subprojects. In such cases, the borrower prepares an Indigenous Peoples Planning Framework (IPPF). The IPPF provides for the screening and review of these programs or subprojects in a manner consistent with this policy.</p>	<p>For all interventions which may have potential adverse effects on Indigenous Peoples, an IPP will be prepared which will identify the potential adverse effects and avoid, minimize, mitigate, or compensate for the effects.</p> <p>IPP should include the elements laid out in the World Bank Safeguard Policy, OP4.10, Annex B. Some projects involve the preparation and implementation of annual investment programs or multiple subprojects. In such cases, the borrower prepares an IPPF. The IPPF provides for the screening and review of these programs or subprojects in a manner consistent with this policy.</p>	<p>No specification to prepare an Indigenous Peoples Plan. The proponent has to explain perceived disadvantages or adverse effects to the community and the measures adopted by the applicant to mitigate these during public meetings (Consultative Community Assembly or First meeting). In addition to that, MOA should include IP's consideration plan such as detailed measures to protect IP rights and value systems, detailed measures to conserve/protect any affected portion of the ancestral domain critical for watersheds, mangroves, wildlife sanctuaries, forest cover. (NCIP AO No.1 series of 2006)</p>	Under the Philippines regulations, the project proponents are not required to prepare an Indigenous Peoples Plan. However relevant plan should be included in the MOA.	The contents of IP's consideration plan under the MOA could be separately formulated.
Social Assessment		<p>The borrower undertakes a social assessment to evaluate the project's potential positive and adverse effect on the Indigenous Peoples, and to examine project alternatives where adverse effects may be significant.</p> <p>To carry out the social assessment and prepare the IPP/IPPF, the borrower pays particular attention to:</p> <p>(a) the customary rights of the Indigenous Peoples, both individual and collective;</p> <p>(b) the need to protect such lands and resources against illegal intrusion or encroachment;</p> <p>(c) the cultural and spiritual values; and</p> <p>(d) Indigenous Peoples' natural resources management practices and the long-term sustainability if such practices.</p>	<p>The borrower undertakes a social assessment to evaluate the project's potential positive and adverse effect on the Indigenous Peoples, and to examine project alternatives where adverse effects may be significant.</p> <p>To carry out the social assessment and prepare the IPP/IPPF, the borrower pays particular attention to:</p> <p>(a) the customary rights of the Indigenous Peoples, both individual and collective;</p> <p>(b) the need to protect such lands and resources against illegal intrusion or encroachment;</p> <p>(c) the cultural and spiritual values; and</p> <p>(d) Indigenous Peoples' natural resources management practices and the long-term sustainability if such practices.</p>	<p>The proponents should explain perceived disadvantages or adverse effects to the community and the measures adopted by the applicant to mitigate these during public meetings (Consultative Community Assembly or First meeting). (NCIP AO No.1 series of 2006)</p> <p>Under the EIA process, the proponents should undertake social assessment that includes the impact toward the Indigenous Peoples..</p>	There are no significant gap between the harmonized policy and the Philippines' law	Not Applicable

Aspect	JICA Guidelines for Environmental and Social Consideration (April 2010)	World Bank OP4.10	Harmonized Policy	Government Laws	Gaps between Harmonized Policy and Government Laws	The Mechanisms to bridge gaps
Free, prior, and informed consultation.	When the projects may have adverse impacts on indigenous peoples, efforts must be made to obtain the consent of indigenous peoples in a process of free, prior, and informed consultation.	Where the project affects Indigenous People, the borrower engages in free, prior, and informed consultation with them. To ensure such consultation, the borrower: (a) establishes an appropriate gender and intergenerationally inclusive framework; (b) uses consultation methods appropriate to the social and cultural values of the affected Indigenous Peoples' communities and their local conditions; and (c) provides the affected Indigenous Peoples' communities with all relevant information about the project in a culturally appropriate manner at each stage of project preparation and implementation.  Where the affected Indigenous Peoples' communities provide their broad support to the project, the borrower prepares a detailed report.	When the projects may have adverse impacts on indigenous peoples, efforts must be made to obtain the consent of indigenous peoples in a process of free, prior, and informed consultation. To ensure such consultation, the borrower: (a) establishes an appropriate gender and intergenerationally inclusive framework; (b) uses consultation methods appropriate to the social and cultural values of the affected Indigenous Peoples' communities and their local conditions; and (c) provides the affected Indigenous Peoples' communities with all relevant information about the project in a culturally appropriate manner at each stage of project preparation and implementation.  Where the affected Indigenous Peoples' communities provide their broad support to the project, the borrower prepares a detailed report.	Free and Prior Informed Consent is the consensus of all members of the ICC/IPs which is determined in accordance with their respective customary laws and practices that is free from any external manipulation, interference and coercion and obtained after fully disclosing the intent and scope of the plan/program/project/activity, in a language and process understandable to the community. The FPIC is given by the concerned ICCs/IPs upon the signing of the Memorandum of Agreement (MOA) containing the conditions/requirements, benefits as well as penalties of agreeing parties as basis for the consent. (NCIP AO No.1 series of 2006)	There are no significant gap between the harmonized policy and the Philippines' law	Not Applicable
Preparation of Program and Subproject IPPs	In principle, JICA undertakes environmental reviews for the sub-projects prior to their implementation in a same manner as specified for Category A projects, if those sub-projects are likely to be under the cooperation projects.	The borrower ensures that, before the individual program or subproject is implemented, a social assessment is carried out and IPP is prepared in accordance with the requirement of this policy.	For Category A sub-projects, end-users shall carry out a social assessment and prepare IPP prior to their implementation	In the MOA , plan to use all funds to be received by the host ICC/IP communities, ensuring that a portion of such funds shall be allocated for development projects, social services and/or infrastructures in accordance with their development framework, as well as detailed measures to protect IP rights and value systems should be included. (NCIP AO No.1 series of 2006)	MOA may include subprojects. However they are not required implementation of social assessment prior their implementation.	
Disclosure	Prior to its environmental review, JICA disclose IPPs for projects that address issues of indigenous people. Measures for the affected indigenous peoples must be prepared as an IPP and must be made public in compliance with the relevant laws and ordinances of the host country.	The borrower makes the social assessment report and draft IPP/IPPF available to the affected Indigenous Peoples' communities in an appropriate form, manner, and language.	Disclose the IPPs including documentation of the consultation process, in a form and language(s) accessible to key stakeholders, civil society, particularly affected groups and the general public in an accessible place for a reasonable minimum period.	All official records, documents and papers pertaining to official acts, transactions or decisions, as well as research data used as basis for policy development of the NCIP shall be made accessible to the public by the NCIP. According to the NCIP, anyone who requests to the NCIP can access to these documents. (IPRA)	There are no significant gap between the harmonized policy and the Philippines' law	Not Applicable
Grievance procedures	Appropriate and accessible grievance mechanisms must be established for the affected people and their communities.	Accessible procedures appropriate to the project to address grievances by the affected Indigenous Peoples' communities arising from project implementation. When designing the grievance procedures, the borrower takes into account the availability of judicial recourse and customary dispute settlement mechanisms among the Indigenous Peoples.	Appropriate and accessible grievance mechanisms must be established for the affected people and their communities. When designing the grievance procedures, the borrower takes into account the availability of judicial recourse and customary dispute settlement mechanisms among the Indigenous Peoples.	Prior to the endorsement of the FPIC application to the ADO, or issuance by the Regional Director of the CNO, all complaints involving irregularities shall be filed with the concerned Regional Director, copy furnished the FBI/FPIC Team leader. The complaint shall be resolved by the Regional Director within ten (10) days from receipt of the answer or expiration of the period for filing thereof. After the FPIC application is endorsed to the ADO, or after the concerned Regional Director issues the CNO, all petitions involving irregularities shall be filed with the Commission through the Clerk of the Commission. The petition must be verified and accompanied by sworn affidavits of witnesses, other evidence and a certification of non-forum shopping executed in accordance with the requirements of the Rules of Court. (NCIP AO No.1 series of 2006)	There are no significant gap between the harmonized policy and the Philippines' law	Not Applicable
Monitoring	After projects begin, project proponents etc. monitor whether any unforeseeable situations occur and whether the performance and effectiveness of mitigation measures are consistent with the assessment's prediction. They then take appropriate measures based on the results of such monitoring.	Free, prior, and informed consultation with and participation by Indigenous Peoples' communities during monitoring is recommended.	After projects begin, project proponents etc. monitor whether any unforeseeable situations occur and whether the performance and effectiveness of mitigation measures are consistent with the assessment's prediction. They then take appropriate measures based on the results of such monitoring. Free, prior, and informed consultation with and	The relevant organizations should follow monitoring and evaluation system of the MOA, to include submission of reports and creation of monitoring teams. (NCIP AO No.1 series of 2006) Under the EIA systems, the Proponents issued ECCs are primarily responsible for monitoring their projects. They are required to submit two kinds of monitoring reports, the ECC Compliance Monitoring Report (CMR) on	There are no significant gap between the harmonized policy and the Philippines' law	Not Applicable

Aspect	JICA Guidelines for Environmental and Social Consideration (April 2010)	World Bank OP4.10	Harmonized Policy	Government Laws	Gaps between Harmonized Policy and Government Laws	The Mechanisms to bridge gaps
			participation by Indigenous Peoples' communities during monitoring is recommended.	semi-annual frequency and the Self-Monitoring Report (SMR) on a quarterly basis to the concerned EMB RO.		
Special Considerations						
Commercial Development of Natural and Cultural Resources		<p>If the project involves the commercial development of natural resources, the borrower includes in the IPP arrangements to enable the Indigenous Peoples to share equitably in the benefits to be derived from such commercial development.</p> <p>The project of the commercial development of Indigenous Peoples' cultural resources and knowledge is conditional upon their prior agreement to such development.</p>	<p>If the project involves the commercial development of natural resources, the borrower includes in the IPP arrangements to enable the Indigenous Peoples to share equitably in the benefits to be derived from such commercial development.</p> <p>The project of the commercial development of Indigenous Peoples' cultural resources and knowledge is conditional upon their prior agreement to such development.</p>	The ICCs/IPs shall have the priority rights in the harvesting, extraction, development or exploitation of any natural resources within the ancestral domains. A non-member of the ICCs/IPs concerned may be allowed to take part in the development and utilization of the natural resources for a period of not exceeding twenty-five (25) years renewable for not more than twenty-five (25) years: Provided, That a formal and written agreement is entered into with the ICCs/IPs concerned or that the community, pursuant to its own decision making process, has agreed to allow such operation: Provided, finally, That the all extractions shall be used to facilitate the development and improvement of the ancestral domains. (IPRA)	There are no significant gap between the harmonized policy and the Philippines' law	Not Applicable
Physical Relocation of Indigenous Peoples	Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives. When, after such an examination, avoidance is proved unfeasible, affected people must be sufficiently compensated and supported by project proponents etc. in a timely manner. Prior compensation, at full replacement cost, must be provided as much as possible.	<p>When it is not feasible to avoid relocation, the borrower prepares a resettlement plan in accordance with the requirement of OP 4.12, Involuntary Resettlement.</p> <p>Involuntary restrictions on Indigenous Peoples' access to legally designated parks and protected areas, in particular access to their sacred sites, should be avoided. Where it is not feasible to avoid restricting access, the borrower prepares a process framework in accordance with the provisions of OP 4.12.</p>	<p>When it is not feasible to avoid relocation, the borrower prepares a resettlement plan in accordance with the requirement of OP 4.12, Involuntary Resettlement.</p> <p>Involuntary restrictions on Indigenous Peoples' access to legally designated parks and protected areas, in particular access to their sacred sites, should be avoided. Where it is not feasible to avoid restricting access, the borrower prepares a process framework in accordance with the provisions of OP 4.12.</p>	In the case the project requires relocation of IPs, FPIC is necessary prior to its implementation. (IRR of IPRA).	There are no significant gap between the harmonized policy and the Philippines' law	Not Applicable
Indigenous Peoples and Development	JICA makes efforts to enhance the comprehensive capacity of organizations and operations in order for project proponents etc., to have consideration for environmental and social factors, appropriately and effectively, at all times	In furtherance if the project of this policy, the Bank may, at a member country's request, support the country in its development planning and poverty reduction strategies by providing financial assistance for a variety if initiatives.	Assist in building capacity of the borrowers on best practice on consideration on indigenous peoples during both planning and implementation Financing of technical assistance to strengthen the capacities of agencies responsible for consideration on indigenous peoples, or of affected people to participate more effectively in project operations.	The NCIP shall take special measures to guarantee the right of ICCs/IPs to pursue their economic, social and cultural development at their own choice and pace and to ensure that economic opportunities created by the government are extend to them based on freedom of initiative and self-reliance. (IRR of IPRA)	There are no significant gap between the harmonized policy and the Philippines' law	Not Applicable