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ON CORAL REEFS, FISHERIES AND FOOD SECURITY

PHILIPPINES

Review of National Laws and Legislations in the Philippines in Relation to

ECOSYSTEM APPROACH TO FISHERIES MANAGEMENT (EAFM)



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Review of National Laws and Legislations in the Philippines in Relation to Ecosystem Approach to Fisheries Management (EAFM)

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LIST OF ACRONYMS AND ABBREVIATIONS

ADB	Asian Development Bank
AFMA	Agriculture and Fisheries Modernization Act of 1997
APEC	Asia-Pacific Economic Cooperation
APFIC	Asia-Pacific Fishery Commission
ASEAN	Association of Southeast Asian Nations
BAR	Bureau of Agricultural Research
BFAR	Bureau of Fisheries and Aquatic Resources
BIMP-EAGA	Brunei Darussalam, Indonesia, Malaysia, Philippines' East ASEAN Growth Area
CBD	Convention on Biological Diversity
CBFM	Community-Based Forest Management
CCRF	Code of Conduct for Responsible Fisheries (FAO)
CFC	Chlorofluorocarbons
CFGL	Commercial Fishing Gear License
CFVGL	Commercial Fishing Vessel and Gear License
CHED	Commission on Higher Education
CITES	Convention on International Trade in Endangered Species
CLWUP	Comprehensive Land and Water Use Plan
CPR	Conservation, Protection and Restoration
CRM	Coastal Resources Management
CRMF	Coastal Resources Management Framework
CTI	Coral Triangle Initiative
CTSP	Coral Triangle Support Project
DA	Department of Agriculture
DA-BFAR	Department of Agriculture-Bureau of Fisheries and Aquatic Resources
DECS	Department of Education Culture and Sports
DENR	Department of Environment and Natural Resources

DENR-PAWB	Department of Environment and Natural Resources–Protected Areas and Wildlife Bureau
DepEd	Department of Education
DFA	Department of Foreign Affairs
DOE	Department of Energy
DOST	Department of Science and Technology
DOT	Department of Tourism
DOTC	Department of Transportation and Communications
DSWD	Department of Social Welfare and Development
EAF	Ecosystem Approach to Fisheries
EAFM	Ecosystem Approach to Fisheries Management
EBFM	Ecosystem Based Fisheries Management
ECA	Environmentally Critical Areas
ECAN	Environmentally Critical Areas Network
ECP	Environmentally Critical Projects
EEC	Environmental Enforcement Center
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
ELAC	Environmental Legal Assistance Center, Inc.
FAO	Food and Agriculture Organization
FARMC	Fisheries and Aquatic Resource Management Council
FISH	Fisheries Improved for Sustainable Harvest (USAID-funded Project)
FRMP	Fisheries Resources Management Project
FSP	Fisheries Sector Program
HUC	Highly Urbanized Cities
ICM	Integrated Coastal Management
ICRMP	Integrated Coastal Resources Management Project
IEC	Information and Education Campaign
ICC	Indigenous Cultural Communities
IFMU	Integrated Fisheries Management Unit
IP	Indigenous People

IPAF	Integrated Protected Areas Fund
IPFC	Indo-Pacific Fisheries Council
IPOA	International Plan of Action
IPOA-CAPACITY	International Plan of Action for the Management of Fishing Capacity
IPOA-IUU	International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing
KSK	Kilusan Sagip Kalikasan
KRA	Key Result Area
LLDA	Laguna Lake Development Authority
LGU/s	Local Government Unit/s
LGC	Local Government Code
LRFT	Live Reef Fish Trade
MDG	Millennium Development Goals
MFARMC	Municipal Fisheries and Aquatic Resource Management Council
MSPL/S	Malampaya Sound Protected Landscape/Seascape
MSY	Maximum Sustainable Yield
NAWC	National Aquatic Wildlife Committee
NDRRMC	National Disaster Risk Reduction and Management Council
NEDA	National Economic and Development Authority (Philippines)
NIPAS	National Integrated Protected Areas System
NFARMC	National Fisheries and Aquatic Resource Management Council
NGO	Non Government Organization
NPAAAD	Network of Protected Areas for Agricultural and Agro-Industrial Development
NPOA-IUU	National Plan of Action to Prevent, Deter and Eliminate Illegal, Unregulated and Unreported Fishing
NWRB	National Water Resources Board
NWRC	National Water Resources Council
PANLIPI	Tanggapang PanLigal ng Katutubong Pilipino
PAMB	Protected Areas Management Board
PAWB	Protected Areas and Wildlife Bureau
PB	Punong Barangay
PCSD	Palawan Council for Sustainable Development
PCSDS	Palawan Council for Sustainable Development Staff

PCG	Philippine Coast Guard
PD	Presidential Decree
PDP	Philippine Development Plan
PhCSD	Philippine Council for Sustainable Development
PIC	Prior Informed Consent
PSU	Palawan State University
PNP	Philippine National Police
PNP-MARIG	Philippine National Police Maritime Group
PWRCC	Palawan Wildlife Rescue and Conservation Center
RA	Republic Act
RAWC	Regional Aquatic Wildlife Committee
RFMO	Regional Fisheries Management Organizations
SEP	Strategic Environmental Plan
SGP-GEF	Small Grants Program – Global Environment Facility
SAFDZ	Strategic Agriculture and Fisheries Development Zone
SEAFDEC	Southeast Asian Fisheries Development Center
SSME	Sulu-Sulawesi Marine Ecoregion
TESDA	Technical Education and Skills Development Authority
TRNP	Tubbataha Reefs Natural Park
TRNMP	Tubbataha Reef National Marine Park
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCLOS	UN Convention on the Law of the Sea
UNDP	United Nations Development Program
UNFSA	United Nations Fish Stocks Agreement
UNESCO	United Nations Educational, Scientific and Cultural Organization
USAID	United States Agency for International Development
WEO	Wildlife Enforcement Officers
WSSD	World Summit on Sustainable Development
WWF	World Wildlife Fund

EXPANDED SUMMARY

Despite the Philippines' abundant fisheries resources, its marine ecosystems are showing signs of overfishing (FAO 2011). The country is experiencing rapid depletion of its aquatic resources, with 75 percent of its coral reefs degraded, and with its mangrove forest and its other fisheries ecosystems steadily decreasing in the past years (Green, et. al, 2003). This problem is not exclusive to the Philippines, with the world's marine resources facing similar depletion over the years due to overexploitation, destructive fishing methods that devastate the aquatic ecosystem, and poor fisheries management.

The concept of Ecosystem Approach to Fisheries (EAF)—which is also used interchangeably with the Ecosystem Approach to Fisheries Management (EAFM)—emanated from the realization that the world's largest food basket is not infinite. Therefore, proper management of the fisheries should be undertaken to ensure that the future generations will continue to benefit from these resources. The “ecosystem approach to fisheries strives to balance diverse societal objectives, by taking into account the knowledge and uncertainties about biotic, abiotic and human components of ecosystems and their interactions and applying an integrated approach to fisheries within ecologically meaningful boundaries” (FAO, 2003).

While several international agreements have adopted the EAFM concept, only the United Nations Food and Agriculture Organization (FAO) attempted to come out with specific guidelines to implement EAFM. In 2003, the FAO issued a Technical Guideline for Responsible Fishing, which sets the standard for fisheries management in implementing EAFM (FAO 2003). However, adherence to the guideline is voluntary.

This policy study is undertaken to review international, national, and area-specific laws and policies in relation to EAFM in the Philippines. This review assesses the policy issues and gaps and likewise recommends areas of intervention, including policy proposals.

The Philippines has had several foreign-funded projects on fisheries management and/or coastal resources management (CRM) that have adopted some of the EAFM principles and concepts in both project design and project implementation. The Philippines also has a relatively broad and comprehensive legal framework on fisheries and coastal-resources management.

The Philippines is a signatory to several international agreements that relate to general environmental conservation, protection of the marine environment, and fisheries management. In keeping with its international commitments, the Philippine government has passed special laws to implement some of these international covenants. These include the 1992 National Integrated Protected Areas System Act (NIPAS; Republic Act No. 7586) that concretizes its commitment to the 1992 Convention on Biological Diversity, and the Philippine Wildlife and Resources Conservation Law (Wildlife Act; RA 9147) that implements our commitments to the Convention on International Trade of Endangered Species of Fauna and Flora (CITES). Certain provisions of the Philippine 1998 Fisheries Code (RA 8550) also implement CITES.

Through Executive Order No. 533 (2006), the Philippine government has adopted the Integrated Coastal Management (ICM) as a national strategy “to ensure the sustainable development of the country's coastal and marine resources in order to achieve food security, sustainable livelihood, poverty alleviation and reduction of vulnerability to natural hazards.” The current Philippine Development Plan (2011 to 2016) of the Aquino Administration explicitly states that it will “apply the ecosystem approach to the management of fisheries and other marine resources, addressing transboundary policy and regulatory concerns” to implement its strategy of enhancing coastal and marine resources management.

The 1987 Philippine Constitution, Fisheries Code, NIPAS, and several other special laws have provided platforms for developing integrated fisheries management and CRM approaches, which has facilitated the adoption and implementation of EAFM concepts. NIPAS is primarily concerned with the establishment and management of protected areas. The Fisheries Code encourages the adoption of a holistic approach to fisheries management and contains provisions that address EAFM concepts and embody EAFM principles. Among others, it provides for the establishment of marine and fish sanctuaries within municipal waters.

This is complemented by the Local Government Code of 1991 (RA 7160), which devolved a number of the environment and natural resources functions from the national agencies to the local government units (LGUs). Municipal governments now have the primary mandate to manage municipal waters (defined by law to extend 15 kilometers from the shoreline). Marine waters beyond the municipal waters are managed by the Bureau of Fisheries and Aquatic Resources (BFAR) under the Department of Agriculture (DA). The decentralization focus of RA 7160 and the integrated approaches provided in NIPAS and Fisheries Code serve as facilitative factors that have enabled the LGUs to pass ordinances to establish marine sanctuaries, reserves, and marine habitat zones.

This study used the province of Palawan as an illustrative case, given the existence of various CRM and fisheries management initiatives in the province; its unique biodiversity; and its distinct legal framework on sustainable development. Palawan's special character is highlighted by its special law, the 1992 Strategic Environmental Plan for Palawan (SEP law, Republic Act No. 7611) that provides for a specific management scheme and governance mechanism. CRM and fisheries-related initiatives undertaken by LGUs, the Palawan Council for Sustainable Development (PCSD), and national government agencies such as the DA-BFAR, in partnership with civil society groups, showed the impetus given by the aforementioned laws to enable the local governments to pass local legislation and implement their mandates.

In more specific terms, the study looked into Live Reef Fish Trade (LRFT) project of the World Wildlife Fund (WWF), which is a more deliberate attempt to actualize EAFM. WWF took a comprehensive approach by engaging the LGUs and other agencies, such as the PCSD and DA-BFAR, in various collaborative efforts. These include undertaking research and surveys of fishery areas, zoning of specific water bodies and fishery areas, establishing marine protected areas, capacitating LGUs and community stakeholders, as well as developing local ordinances and programs and supporting livelihood efforts.

The study shows that while there is yet no EAFM-specific legislation, there are policies and programs that have pursued specific management strategies and designated conservation areas in the coastal zone where the EAFM approach can and has been operationalized. However, weak enforcement problems and policy gaps have hampered the application of these laws.

The study has noted that policy issues, gaps, and related problems have stalled efforts towards integrated fisheries management and EAFM. One issue is on conflicting thrusts and priorities, as illustrated by varying resource use priorities between the 1998 Fisheries Code and the 1997 Agriculture and Fisheries Modernization Act (AFMA, RA 8485) as well as between the Fisheries Code and the local ordinances on live fish gathering. There are also sectoral conflicts in the coastal marine areas, such between the Fisheries Code that espouses conservation of fishery resources and the Mining Act, which promotes mineral resources exploitation that has negative impacts on the fishery resources and associated habitats. The government's policy, as expressed by DA-BFAR, is still largely production-oriented fisheries management.

Another gap is on the unclear and limited strategy on EAFM under existing laws and policies. RA 8550 can be considered relatively comprehensive, but its management strategies remain to be generally unimplemented. Provisions on maximum sustainable yield and total allowable catch remain to be theoretical and in the level of research, and have not yet been translated into local ordinances and concrete guidelines. There is still no guideline on how to implement integrated coastal management provided under RA 8550. The law does not provide for a clear strategy on how sustainability will be achieved.

Another issue is overlapping mandates of the various institutions involved in fisheries management. This concern has been repeatedly pointed out in previous policy studies and currently in the government's Philippine Development Plan for 2011 to 2016. Ideally, EAFM must work within a simpler and streamlined institutional arrangement. However, with the variety of laws concerning fisheries management, a range of management bodies have been established, resulting in the overlapping of mandates of different bodies tasked to manage the fishery resources and the enforcement of the associated laws.

The study recommends the following intervention areas in order to move towards EAFM:

1. Enhance information and education activities on EAFM among national and local agencies, as well as concerned civil society groups and community stakeholders;
2. Provide policy support to municipalities or areas that are critical habitats to marine fishery resources and those that can be considered as hotspots in fishery crimes;
3. Initiate legislative proposals to include specific provisions on EAFM in the ongoing review of the Philippine Fisheries Code, as well as in pending bills on CRM and coastal fisheries resource management as well as marine protected management;
4. Develop appropriate institutional arrangements for up-scaling of fisheries management as an organizational modality towards achieving EAFM as reflected in the earlier proposals of Pomeroy et al. (2010);
5. Establish linkages with environmental and conservation projects of the leagues of municipalities in order to identify possible partnerships to develop local legislation and programs (IEC, research, surveys, etc.) applying EAFM;
6. Enhance multi-agency engagements so that institutions (e.g. DENR, PCSDS, LGU leagues, NGOs, etc.) or bodies working on CRM and fisheries management will collectively develop strategies to address current policy gaps;
7. Provide technical assistance to LGUs and executive agencies to enable them to fill in policy gaps within their areas of jurisdiction; and
8. Engage key national government agencies—especially with the National Convergence Initiative of DENR, DA and DAR—towards implementation of the provisions of the Philippine Development Plan on EAFM.

Prospects towards fostering EAFM point to a great need to find solutions for the policy inconsistencies. Moreover, there is a need to build institutional capacities, especially among the primary actors. Existing initiatives on MPAs, fishery reserves, and sanctuaries can serve as the foundation for EAFM approaches and strategies. We need to engage management bodies governing these protected areas in order to revisit or review their management plans from the perspective of EAFM. The pursuit of legislative proposals entails the development of an advocacy agenda and the engagement of champions among CRM practitioners, legislators (both national and local), and civic-minded leaders who are involved in CRM and fisheries management activities.

I BACKGROUND AND CONTEXT

I.1 THE POLICY QUESTION AND STUDY OBJECTIVES

Since the issuance of the FAO guideline on fisheries in 2003, the EAFM concepts and principles have become more explicit and specific. While there have been various international instruments, agreements, and programs that contain the EAFM concepts and principles, the challenge is in the operationalization of these concepts and principles.

The Philippines has various laws, policies, and programs relating to fisheries and the marine environment. In this regard, this policy study seeks to address the following questions:

1. Do any of these laws, policies and programs embody EAFM concepts and principles? Have such laws and policies been implemented?
2. Are there any policy gaps that could hamper the implementation of EAFM?
3. What can be done to address these policy gaps, taking into account the various fisheries and coastal resource management initiatives that have been undertaken?

In light of the global thrust towards EAFM and the previous initiatives towards its implementation, this policy study is being undertaken to:

1. Review the Philippines' national and local legislation in relation to EAFM;
2. Identify policy issues in relation to current laws and policies as well as policy options and other interventions needed to address these gaps and issues; and
3. Review existing major fisheries programs as well as pending bills in congress.

I.2 LIMITATIONS OF THE STUDY

Although national in scope, the study team focused on Palawan province as a case study area. The province has a distinct advantage in terms of its having a province-wide, specific legal framework on sustainable development, its distinctive biodiversity status, and the range of initiatives on coastal resources management and fisheries management.

I.3 FRAMEWORK AND METHODOLOGY OF THE POLICY REVIEW

This policy study mainly involved a review of existing legislations and literature for relevant information. Peer reviewers from government were sought to enhance the study. The study team reviewed laws and policies (which include programs) relevant to EAFM. They also held some discussions with environmental lawyers and policy analysts. International instruments and agreements, national government laws, policies, and programs were evaluated. Local legislation was mainly focused on Palawan.

2

EAFM AND SUSTAINABLE DEVELOPMENT

2.1 EVOLUTION AND BEGINNINGS OF EAFM

The Philippines was recognized for being eleventh among the top fish-producing countries in the world in 2003, with production of 2.63 million tonnes of fish, crustaceans, mollusks, and aquatic plants (FAO, 2011). Although the fisheries resources remain abundant, the country's marine ecosystems are showing signs of over-fishing. The Philippines is experiencing rapid depletion of its aquatic resources, with 75 percent of its coral reefs degraded, and with its mangrove forest and other fisheries ecosystems steadily decreasing in the past years (Green et. al, 2003).

This problem is not exclusive to the Philippines, with the world's marine resources facing similar depletion over the years. This problem is due to overexploitation, destructive fishing methods that devastate the aquatic ecosystem, and poor fisheries management. The realization that the world's largest food basket is not infinite, and that proper management should be undertaken to ensure that future generations will continue to benefit from these resources, brought about the concept of Ecosystem Approach to Fisheries (EAF) or Ecosystem Approach to Fisheries Management (EAFM). The "ecosystem approach to fisheries strives to balance diverse societal objectives, by taking into account the knowledge and uncertainties about biotic, abiotic and human components of ecosystems and their interactions and applying an integrated approach to fisheries within ecologically meaningful boundaries" (FAO 2003).

The EAFM concept is for sustainable fisheries development and seeks to address the multiple needs and desires of societies without jeopardizing the options for future generations to benefit from the full range of goods and services provided by marine ecosystems (FAO 2003). It takes into consideration the marine environment, which includes the coral reefs and mangroves, alongside human activities, including coastal development and tourism in fisheries management (USAID, 2011).

EAFM was formally applied to fisheries management through the Reykjavik Conference on Sustainable Fisheries in the Marine Ecosystem in 2001. Equally noteworthy is the World Summit on Sustainable Development (WSSD) in 2002, where countries made commitments to introduce an ecosystems approach to marine resource assessment and management by 2010 (FAO Mombasa, 2008).

The concepts embodied in EAFM are not new and have been contained in previous international agreements. The United Nations Convention on the Law of the Sea (UNCLOS) provides for the protection and conservation of marine habitats. This was followed by the United Nations Fish Stocks Agreement (UNFSA). A parallel initiative in the development of the EAFM concept was made by the 1972 United Nations Conference on the Human Environment and later, the 1992 United Nations Conference on Environment and Development (UNCED). UNCED was significant as it paved the way for the Rio Declaration, the Convention on Biological Diversity (CBD), and Agenda 21. These initiatives were followed by the drafting of the Malawi principles and the World Summit on Sustainable Development (WSSD) in 2002. EAFM was included in the UN Food and Agriculture Organization's (FAO) Cancun Declaration, which was then followed by the 1995 Code of Conduct

for Responsible Fisheries (CCRF) and the Reykjavik Declaration, which eventually promoted and introduced Ecosystem Approach to Fisheries (EAF) (Bianchi, 2006).

In 2003, the FAO issued a Technical Guideline for Responsible Fishing, which sets the standard for fisheries management; this relates mostly to the implementation of EAFM (FAO, 2003). Adherence to the guideline is, however, voluntary. The Philippines and other ASEAN countries adhere to this concept and they developed regional guidelines for the proper implementation of EAFM.

2.2 EFFORTS ON EAFM IN THE PHILIPPINES

The Philippines has introduced and applied EAFM concepts and principles through several government and non-government programs and projects, most notable of which are the following:

2.2.1 Fisheries Improved for Sustainable Harvest (FISH) Project

Fisheries Improved for Sustainable Harvest (FISH) Project, funded by the United States Agency for International Development (USAID), is a project which built upon the foundation of a coastal resource management to achieve the next crucial benchmark in managing fisheries and coastal resources in the Philippines. This benchmark calls for the development of ecosystem-based approaches to fisheries management driven by informed, disciplined, and cooperative stakeholders at national and local levels of engagement. The FISH project was implemented in the Calamianes Islands (Palawan), Danajon Bank (Bohol, Southern Leyte, Leyte, and Cebu), Surigao del Sur, and Tawi-Tawi (FISH Philippines, 2011).

2.2.2 Coral Triangle Initiative (CTI)

The Coral Triangle Initiative (CTI) integrated EAFM in its action plans concerning coral reefs, fisheries, and food security. CTI is a multi-government partnership that aims to safeguard the marine and coastal resources of the Coral Triangle, the world's richest marine ecosystem (USAID/CTI, 2011). It is centered around political commitments and proactive implementation by the governments of the Coral Triangle area (Indonesia, Philippines, Malaysia, Timor Leste, Papua New Guinea, and Solomon Islands). CTI is supported and carried forward by private sector, international agency, and civil society or non-government organization (NGO) partners, and could provide a major contribution toward safeguarding the region's marine and coastal biological resources for the sustainable growth and prosperity of current and future generations (CTI, 2011).

2.2.3 Ginintuang Masaganang Ani For Fisheries Program (2002 to 2004)

The Ginintuang Masaganang Ani For Fisheries Program (2002 to 2004) is a government program designed to provide national directions and framework to develop and manage the country's fisheries resources for food security and the socio-economic upliftment of subsistence fisherfolk. This was initiated during the time of former president Gloria Macapagal-Arroyo. Development efforts focused on the expansion and revitalization of productivity programs and provision of support activities through appropriate technology, research, extension, and adequate financial and marketing assistance. On the other hand, management efforts covered conservation, protection, and sustained management of the country's fishery and aquatic resources to ensure its long-term sustainability (DA-BFAR, 2011).

2.2.4 Integrated Coastal Resources Management Project (ICRMP)

Integrated Coastal Resources Management Project (ICRMP), supported by the Asian Development Bank (ADB), aims to sustainably manage coastal resources and uplift the socio-economic conditions of people living in the coastal areas. This particularly focuses in the provinces and municipalities surrounding marine biodiversity

corridors of national and global importance, as identified in the Philippine Biodiversity Conservation priorities (DENR, 2011).

2.2.5 Fishery Sector Program (FSP) and Fisheries Resources Management Project (FRMP)

Fishery Sector Program (FSP) and Fisheries Resources Management Project (FRMP) were funded by the Asian Development Bank. Both projects were implemented on a bay or gulf scale, which represents a marine ecosystem covering multiple political jurisdictions. Implemented from 1989 to 1995, the FSP project undertook fisheries management at different levels, focused on governance reform and utilized a co-management approach (ADB, 1999). FRMP promoted sustainable use of resources and was implemented from 1998 to 2005 (ADB, 2007).

2.2.6 World Wildlife Fund (WWF) – Philippines

World Wildlife Fund (WWF)-Philippines, under the Coral Triangle Support Project (CTSP), worked on research projects regarding the live reef fish trade (LRFT) and its effects in the province of Palawan. The project reviewed the LRFT supply chain, the relevant policies on LRFT and its implementation. The results of the research were used to formulate new strategies that would ensure sustainability (WWF Annual Report, 2008).

2.2.7 BFAR's Integrated Fisheries Management Unit (IFMU)

In 2008, BFAR issued Fisheries Office Order No. 217 calling for the adoption and implementation of IFMU as a strategy. Under this strategy, different local government units can create a cluster where they can cooperate with each other in the management of fisheries resources in a certain ecosystem like a lake, swamp, bay, or gulf (USCTI, 2011).

2.2.8 Philippine – Canada Local Government Support Program

Philippine-Canada Local Government Support Program is a joint undertaking of the governments of the Philippines and Canada, with the goal of assisting the government in realizing its objectives of equitable growth and poverty reduction. Integrated Coastal Resource Management is one of the development projects under this program (LGSP, 2011).

2.2.9 Palawan Strategy Development Project

Palawan Strategy Development Project (June 1, 2001 to June 30, 2004) is a multi-agency research project initiated by Conservation International, and jointly undertaken by the DENR, PCSO, and Provincial Government of Palawan. It seeks to develop a conservation model for the Palawan Biodiversity Corridor, and develop conservation strategies for Palawan (Conservation International, 2011).

2.2.10 Small Grants Program Global Environment Facility (SGP-GEF)

Small Grants Program Global Environment Facility (SGP-GEF), under the United Nations Development Program (UNDP), funded several projects involving coastal and fisheries resource management in the Province of Palawan, such as the following:

■ 2.2.10.1 Mangrove Conservation, Coral Reef Management and Kitang Fishing Tagabinet-Ulugan Bay Area Project

Mangrove Conservation, Coral Reef Management and Kitang Fishing Tagabinet-Ulugan Bay Area Project (12/2002 to 12/2006) promoted biodiversity conservation activities by communities.

■ 2.2.10.2 Baseline Assessment of the Puerto Princesa Subterranean River National Park: Policy, Conservation, Objectives, and Protected Areas Management Arrangements

Baseline Assessment of the Puerto Princesa Subterranean River National Park: Policy, Conservation, Objectives, and Protected Areas Management Arrangements (9/2001 to 12/2001) developed further the baseline information for the Puerto Princesa Subterranean River National Park. The information gathered was used as basis in revisiting the conservation objectives of the protected area.

■ 2.2.10.3 Biodiversity Conservation and Policy Formulation In and Around Snake Island and Honda Bay

Biodiversity Conservation and Policy Formulation In and Around Snake Island and Honda Bay (10/2002 to 9/2005) developed a community-based management plan for the conservation and protection of resources in and around Snake Island and Honda Bay. The project objective was to enrich the biodiversity status of the Snake Island with emphasis on the active participation of the coastal communities of Honda Bay to supplement low-income earnings of the coastal communities and develop awareness-raising activities for biodiversity conservation.

■ 2.2.10.4 Honda Bay and Snake Island Fisheries Management and Mangrove Conservation Project

Honda Bay and Snake Island Fisheries Management and Mangrove Conservation Project (11/2002 to 11/2006) is a project-involved, community-based resource conservation and formulation of a comprehensive resource-management plan for Honda Bay and Snake Island in Puerto Princesa.

■ 2.2.10.5 Sustainable Alternatives to Mangrove Destruction in Palawan

Sustainable Alternatives to Mangrove Destruction in Palawan (2/2004 to 2007) is a project which sought to address the destruction of mangrove forest in Palawan through better resource management, alternative livelihood, and awareness campaigns.

■ 2.2.10.6 Community-Based Marine Sanctuary Management and Livelihood Support Project in Caramay, Roxas, Palawan

Community-Based Marine Sanctuary Management and Livelihood Support Project in Caramay, Roxas, Palawan (2/2004 to 1/2006) sought to address the problem of declining fish yield/fish catch of marginalized fishermen in Caramay, Roxas as a result of the destruction of marine resources due to illegal fishing activities, over-fishing, and intrusion of commercial fishers in prohibited zones. The project also has an eco-tourism component that served to monitor illegal activities, reinforce advocacy on resource protection, and increase members' income (UNDP-SGP, 2011).

2.2.11 Coastal Resources Management and Sustainable Tourism in Ulugan Bay

Coastal Resources Management and Sustainable Tourism in Ulugan Bay is a project supported and implemented by the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Development Program (UNDP), and Puerto Princesa City government. The Department of Tourism (DOT) and NGOs were engaged to participate in this project. The primary objective of this project is to

generate a model for community-based coastal resource management using a multi-sectoral approach (1998-2000).

2.2.12 Strengthening the Fisheries and Aquatic Resources Management Councils (FARMCs)

Strengthening the Fisheries and Aquatic Resources Management Councils (FARMCs) is a project (2008 to 2011) aimed at strengthening the FARMCs for co-management of fisheries resources. FARMCs were given capacity building trainings, which included protected area management, adaptation to climate change, law enforcement training, and the introduction of the Fish Catch Monitoring and Database System (or NEMO as nickname). NEMO will give the FARMCs timely information regarding the nature of fisheries in their area and will serve as basis for management options (Lighthouse Foundation, 2011).

2.2.13 Strengthening Marine Protected Areas

Strengthening Marine Protected Areas to Protect Fisheries and Marine Biodiversity in the Philippines through community empowerment is a project proposed to use social marketing to re-engage communities in the management of their MPAs while simultaneously deploying selective technical support to empower these communities (CBD International, 2011).

2.2.14 Strengthening Governance and Sustainability of Small-Scale Fisheries Management in the Philippines: An Ecosystem-based Fisheries Management Approach (Phase I/2)

Strengthening Governance and Sustainability of Small-Scale Fisheries Management in the Philippines: An Ecosystem-based Fisheries Management Approach (Phase I/2) is funded by the DA's Bureau of Agricultural Research (BAR) and being spearheaded by the WorldFish Center. Its goal is to strengthen the governance and sustainability of small-scale fisheries management in the Philippines. The municipality of San Vicente in Palawan has been included among the Phase I sites.

3

LEGAL FRAMEWORK ON FISHERIES MANAGEMENT IN THE PHILIPPINES

3.1 INTERNATIONAL POLICY

For almost four decades now, there has been an international push on the enactment of international conventions and agreements on account of the recognition of the transborder characteristics of environmental problems. Fisheries management in general, and EAFM in particular, is one of the key concerns that has been developed and pursued globally. Several international instruments and agreements contain EAFM concepts and principles.

3.1.1 Key Instruments and Agreements

■ 3.1.1.1 UN Convention on Human Environment, Stockholm, June 5 to 16 1972

UN Convention on Human Environment (Stockholm, June 5 to 16 1972) was a result of the World Conference on Human Environment. This convention contains several principles on the responsibilities of human beings to their environment. There is an action plan on how to realize the implementation of these principles. Among the responsibilities identified were man's responsibility to ensure the protection and improvement of his environment and its natural resources for present and future generations through careful planning and management, and the states' responsibility to prevent pollution of the seas that can harm living resources and marine life, including the fisheries.

■ 3.1.1.2 United Nations Convention on the Law of the Sea (UNCLOS), Geneva, Switzerland, 1982

The United Nations Convention on the Law of the Sea is a declaration that obliges states to protect and preserve the marine environment. States have the sovereign right to exploit their natural resources pursuant to their environmental policies and in accordance with their duty to protect and preserve the marine environment. It provides for measures to prevent, reduce, and control pollution of the marine environment from all sources and includes measures necessary to protect and preserve rare or fragile ecosystems and the habitat of depleted, threatened, or endangered species and other forms of marine life. The Cabinet Committee on Marine Affairs which is headed by the Department of Foreign Affairs (DFA) addresses the various concerns on the implementation of the UNCLOS.

■ 3.1.1.3 United Nations Conference on Environment and Development (UNCED) and its Agenda 21, Rio de Janeiro, Brazil, 1992

Sustainable Development became the theme of the UNCED summit in June 1992. It resulted in non-binding statements containing a framework on convention on climate change, a convention on biological diversity, a

declaration of sustainable development of forests, and Agenda 21—virtually a very wide ranging environmental action for the next century.

The Rio Declaration (1992) is a non-binding statement that contains 27 broad guiding principles on environmental policy. It emphasizes, among others, the right of human beings to ecological security and environmental protection as part of economic development. Agenda 21 is a program that was approved during the Rio Summit and contains 40 action plans designed to promote sustainable development. For example, Principle 15 of the Rio Declaration stipulates that since most development activities entail some negative environmental impacts or effects, a burden of proof is placed on project proponents to demonstrate that their proposed activities are ecologically sustainable, and therefore, will not seriously or irreversibly affect the physical and cultural environment in which they operate.

The Philippine government was among the first to positively respond to the challenges of the Rio Summit. In September 1992, the government signed Executive Order No. 15 creating the Philippine Council for Sustainable Development (PhCSD), which was mandated to monitor the country's compliance with its commitments under the Rio Declaration and to incorporate them into the national development plans. This challenge is likewise echoed by Palawan's Strategic Environment Plan (RA 7611, 1992), which purportedly serves as the blueprint for the sustainable development of the province of Palawan.

■ 3.1.1.4 Convention on Biological Diversity (CBD), Rio de Janeiro, Brazil, 1992

A key result of the Rio Summit in 1992, this covenant requires contracting parties to develop national strategies, plans or programs for the conservation and sustainable use of biological diversity. Such measures will include the establishment of a system of protected areas, rehabilitation of degraded habitats/ecosystems, and developing legislation for the protection of threatened species. It provides for a mechanism that would give financial and technical assistance to developing countries for assessing and conserving biodiversity.

■ 3.1.1.5 Cancun Declaration, India, May 1992

This International Conference on Responsible Fishing (organized by the government of Mexico, in close consultation with the FAO) led to the adoption of the Declaration of Cancún, which included a request to FAO to draft an International Code of Conduct for Responsible Fishing. The principles embodied in the Declaration include: (a) cooperation by states on bilateral, regional, and multilateral levels to establish, reinforce, and implement effective means and mechanisms to ensure responsible fishing in the high seas; (b) that states fishing on the high seas should cooperate with other states to ensure conservation and rational management of the living resources; and (c) that states should cooperate to deter reflagging of vessels that violate or avoid conservation and management measures (FAO, 2011).

■ 3.1.1.6 United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA), New York, USA, July 24 to August 4, 1995

The UNFSA aims to ensure the long-term conservation and sustainable use of straddling and highly migratory fish stocks, and includes general principles for their conservation and management. Its provisions include the application of the precautionary approach, compatibility of conservation and management measures, cooperation for conservation and management, Regional Fisheries Management Organizations (RFMOs), collection and provision of information and cooperation in scientific research, non-members of RFMOs, and responsibilities of flag states. Likewise, it provides for international, subregional, and regional cooperation in enforcement, procedures for boarding and inspection, measures taken by port States, special requirements, and forms of cooperation with developing countries and dispute settlement. The Agreement establishes a set of rights and obligations for states to conserve and manage the two types of fish stocks as well as associated and dependent

species, and to protect the marine environment. The agreement entered into force in December 11, 2001 and the Philippines signed the agreement in the same year (IISD, 2006).

■ 3.1.1.7 The FAO Code of Conduct for Responsible Fisheries, Rome, 20 October to 2 November 1995

The FAO Code consists of 12 articles and set the principles and international standards of behavior and practices to ensure effective conservation, management, and development of living aquatic resources, with due respect for the ecosystem and biodiversity. The first five articles deal with nature and scope, objectives, relationship with other international instruments, implementation, monitoring and updating, and special requirements of developing countries. Specific subjects covered are on fisheries management, fishing operations, aquaculture developments, integration of fisheries into coastal area management, post-harvest practice and trade, and fisheries research. The Code gives emphasis to the role of regional and sub-regional fisheries organizations in its implementation (FAO, 2011) .

■ 3.1.1.8 The Reykjavik Conference on Responsible Fisheries in the Marine Ecosystem, University Cinema and Conference Center in Reykjavik, Iceland, October 2001

The conference resulted in the approved Reykjavik Declaration on Responsible Fisheries in the Marine Ecosystem. It states that in order to achieve sustainable and responsible fisheries in marine ecosystems, each nation must individually and collectively incorporate ecosystems consideration in the management of their fisheries. The Declaration requires that scientific advice on fisheries management shall be based on an "Ecosystem Approach" by 2010 (IISD, 2001).

■ 3.1.1.9 The Malawi principles, Lilongwe, Malawi, 26-28 January 1998

During a workshop on EAF, the international group identified the following twelve principles and characteristics of EAF:

1. Management objectives are a matter of societal choice.
2. Management should be decentralized to the lowest appropriate level.
3. Ecosystem managers should consider the effects of their activities on adjacent and other ecosystems.
4. Recognizing potential gains from management, there is a need to understand the ecosystem in an economic context, considering e.g. mitigating market distortions, aligning incentives to promote sustainable use, and internalizing costs and benefits.
5. A key feature of the ecosystem approach includes conservation of ecosystem structure and functioning.
6. Ecosystems must be managed within the limits to their functioning.
7. The ecosystem approach should be undertaken at the appropriate scale.
8. Recognizing the varying temporal scales and lag effects which characterize ecosystem processes, objectives for ecosystem management should be set for the long term.
9. Management must recognize that change is inevitable.
10. The ecosystem approach should seek the appropriate balance between conservation and use of biodiversity.
11. The ecosystem approach should consider all forms of relevant information, including scientific and indigenous and local knowledge, innovations, and practices.

12. The ecosystem approach should involve all relevant sectors of society and scientific disciplines.

■ **3.1.1.10 World Summit on Sustainable Development (WSSD), Johannesburg, South Africa, August 26 to September 4, 2002**

The WSSD adopted a Political Declaration and a Plan of Implementation in relation to capture fisheries. In the Declaration, the Heads of States agreed to “develop and facilitate the use of diverse approaches and tools, including the ecosystem approach, the elimination of destructive practices, the establishment of marine protected areas...and the integration of marine and coastal areas into key sectors.” Destructive practices in fisheries include use of noxious substances and inappropriate fishing gears.

3.1.2 Other Relevant Instruments and Agreements

■ **3.1.2.1 Convention Concerning the Protection of the World Cultural and Natural Heritage (Paris, France, October 17 to November 21, 1972, at its seventeenth session)**

Also known as the World Heritage Convention, this was the result of the General Conference of the United Nations Educational, Scientific, and Cultural Organization (UNESCO) in 1972. According to this Convention, outstanding natural and man-made features are part of heritage of all people, and mankind as a whole has certain rights with respect to their conservation.

This convention has significant bearing to the province of Palawan since the province is home to two World Heritage Sites: the Tubbataha Reefs Natural Park (TRNP) and the Puerto Princesa Subterranean River National Park (PPSRNP). The TRNP is particularly important as one of the major sources of fish larvae for the eastern coast of Palawan.

■ **3.1.2.2 Convention on International Trade in Endangered Species of Wildlife Flora and Fauna (CITES) Washington DC., United States of America, on 3 March 1973, went into full force on 1 July 1975**

Implemented as early as 1975, CITES prohibits—with certain exceptions—the commercial trading of species that are threatened with extinction (listed on its Appendix I) and controls the international trading of species that are not yet threatened but may become so (listed on its Appendix II).

Similar to the country’s commitment to the CBD, the Philippine Wildlife Conservation and Resources Act (RA 9147) was passed in 2001 to implement our commitments in this Convention.

■ **3.1.2.3 Framework Convention on Climate Change, May 1, 1992, New York, USA**

This treaty recommends the curbing of emissions of carbon dioxide, methane, and other “greenhouse” gases that warm the climate by trapping the sun’s heat close to earth. It seeks to achieve the “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.” Climate change affects fisheries production in the wild. Small pelagic fishery resources (e.g. mackerel and anchovies) are heavily dependent on climatic conditions. Cephalopod stocks, such as squids and octopi, tend to fluctuate in response to environmental conditions.

■ **3.1.2.4 International Plan of Action for Reducing incidental catches of sea birds in long line fisheries (IPOA SEABIRDS) Rome 1999**

This is a voluntary instrument which applies to states whose fishermen are engaged in long-line fishing, and have determined that they have a problem relating to accidental catch of sea birds. This plan of action provides for the mitigating measures to be undertaken by the concerned states (FAO, 1999)

■ 3.1.2.5 International Plan of Action for the Conservation of Sharks (IPOA SHARKS) Rome 1999

Similar to the IPOA SEABIRDS, this is a voluntary instrument which applies to states that are engaged in shark fishing. States concerned must make an assessment if they have a problem in conservation of sharks. If such condition applies, this action plan provides for the necessary mitigating measures that should be undertaken by said state.

■ 3.1.2.6 International Plan of Action for the Management of Fishing Capacity (IPOA-CAPACITY), Rome, 1999

This plan of action aims to address the issue of overfishing, degradation of marine fisheries, and food production and ensure the sustainability of fisheries resources. The plan of action is also based on the code of conduct for responsible fisheries (CCRF), and is a voluntary instrument. The Philippines adheres to this plan of action and BFAR has issued Fisheries Admin Order No. 223, Series of 2003, imposing a moratorium on the issuance of new commercial fishing vessel and gear licenses (CFVGL) as part of a precautionary approach to fisheries management.

■ 3.1.2.7 United Nations Millennium Declaration, New York, USA, September 6 to 8, 2000

In this declaration, UN members states reaffirmed their faith and commitment in the UN organization, its purpose, and its principles. This includes the organization's principle in protecting our common environment through the promotion of sustainable development, intensifying efforts in resource conservation, and in stopping unsustainable exploitation of water resources. In the UN Millennium Development Goals (MDG), the fisheries sector forms part of the goal to eradicate extreme poverty and hunger; ensure environmental sustainability; promote gender equality and empower women; combat HIV/AIDS, malaria and other diseases; and develop a global partnership for development (WorldFish Center, 2005). Being a fish-eating country, the fisheries are quite important for both livelihood and nutrition.

■ 3.1.2.8 Cartagena Protocol on Biosafety to the Convention on Biological Diversity, Montreal, 2000

The protocol aims to ensure the safe transfer, handling, and use of living modified organisms as a result of modern biotechnology, and which may have adverse effect on the conservation and sustainable use of biological diversity. It has a special focus on transboundary movements. This protocol reaffirms the precautionary approach contained in Principle 15 of the 1992 Rio Declaration. The protocol is more relevant to Philippine aquaculture as it also establishes a Biosafety Clearinghouse to facilitate the exchange of information on living modified organisms.

■ 3.1.2.9 Bangkok Declaration and Strategy for Aquaculture Development Beyond 2000, Bangkok, Thailand, February, 2000

Adopted by at least 540 participants of the Conference on Aquaculture in the Third Millennium, the Declaration acknowledged the contribution of aquaculture to food security, and its contribution as a growing industry in the economy of developing nations. This was an offshoot of the first major international Conference on Aquaculture, organized by FAO, that was held in 1976 in Kyoto, Japan. The declaration calls for a more responsible aquaculture practice that is within the principles of the FAO Code of Conduct for Responsible Fisheries.

■ 3.1.2.10 International Plan of Action for Illegal, Unreported and Unregulated Fishing (IPOA-IUU), FAO, Rome, 2001

This plan of action, based on the provisions of CCRF, is a voluntary instrument which aims to implement measures to prevent, deter, and eliminate IUU fishing. These measures focus on all state responsibilities,

flag state responsibilities, coastal state measures, port state measures, internationally agreed market-related measures, research, and regional fisheries management organizations. Special requirements of developing countries are considered in the plan.

As an offshoot of the IPOA-IUU, the country's National Plan of Action to prevent, deter, and eliminate illegal, unregulated, and unreported fishing (NPOA-IUU) was developed in response to the challenges posed. Aside from poaching, the most common forms of IUU fishing are cyanide fishing, blast fishing, and the use of fine-meshed nets. Aguilos (1998) estimated that the losses from poaching alone reach up to PhP 37 million annually. It is noted that under the Coral Triangle Initiative, the Philippines' National Plan of Action included measures to combat IUU.

■ 3.1.2.II The Ramsar Convention on Wetlands, Ramsar, Iran, as amended in 1982 and 1987

This convention deals with the conservation of wetlands and its ecosystems. A list of wetlands of international importance was made, and each contracting state is duty bound to conserve wetlands and conduct studies regarding its ecosystem. As wetlands, mangroves are among the most important habitat and nursery grounds for Philippine fisheries.

3.1.3 Philippines' Regional Involvement

The country's commitment to fisheries management and to applying EAFM is likewise manifested in its involvement in various regional bodies.

■ 3.1.3.I Association of Southeast Asian Nations (ASEAN)

The Association of Southeast Asian Nations (ASEAN) is a regional body which seeks to achieve mutual cooperation and brotherhood among member nations. In terms of fisheries cooperation, ASEAN aims to promote food security and sustainable development of fisheries through greater collaboration with other concerned regional and international organizations (signed in Bangkok, Thailand on 8 August 1967).

■ 3.1.3.2 Southeast Asian Fisheries Development Center (SEAFDEC)

The Southeast Asian Fisheries Development Center (SEAFDEC, created in December 1967) is an initiative concerned with the promotion of fisheries development among member countries in the Southeast Asian Region. SEAFDEC has four concerned departments: Marine Capture Fisheries Training (Thailand), Marine Fisheries Research (Singapore), Aquaculture Research (Philippines), and Marine Fishery Resource Development and Management (Malaysia). The member countries of SEAFDEC, including the Philippines, are strong supporters of the Code of Conduct for Responsible Fisheries.

In 1998, four guidelines were developed by SEAFDEC to implement FAO 2003, namely: (1) the Regional Guidelines for Responsible Aquaculture in South East Asia, (2) the Regional Guidelines for Responsible Fishing Operations in South East Asia, (3) Regional Guidelines for Responsible Fisheries Management in South East Asia, and (4) the Regional Guidelines in Responsible Post Harvest Practices and Trade in South East Asia.

■ 3.1.3.3 Brunei Darussalam, Indonesia, Malaysia, Philippines' East ASEAN Growth Area (BIMP-EAGA)

The Brunei Darussalam, Indonesia, Malaysia, Philippines' East ASEAN Growth Area (BIMP-EAGA, organized in Davao City, Mindanao on March 24, 1994) is an economic growth area which aims to intensify economic cooperation considering the vast opportunities for investments, tourism, and trade. Its major concern is to create broad avenues for private sector to participate, facilitate the freer movement of people, goods, and services

in order to stimulate the sub-regional economy by rapidly expanding its market and resource base, as well as share common infrastructure and national resources, including the fisheries.

■ 3.1.3.4 Asia-Pacific Fishery Commission (APFIC)

The Asia-Pacific Fishery Commission (APFIC), formerly titled the Indo-Pacific Fisheries Council (IPFC, and organized in Baguio, Philippines in 1948), is concerned with assisting its member countries to achieve accelerated fisheries development and management. The commission has played a significant role in influencing the member countries' national fisheries development policies and planning.

■ 3.1.3.5 Asia-Pacific Economic Cooperation (APEC)

The Asia-Pacific Economic Cooperation (APEC, created in 1989 in Canberra, Australia) serves as a primary regional vehicle for promoting open trade and practical economic cooperation. This organization aims to sustain the growth and development of the region for the common good of its peoples and contribute to the growth and development of the world economy, as well as to enhance the positive gains both for the region and the world economy resulting from increasing economic interdependence, which will include encouraging the flow of goods, services, capital, and technology (Country Profile, FAO, 2011).

■ 3.1.3.6 Coral Triangle Initiative (CTI)

Coral Triangle Initiative (CTI) is an endeavor of six countries composing the coral triangle. These countries, including the Philippines, have signed an agreement to ensure the conservation and protection of the coral triangle as the epicenter of global marine life abundance and diversity. Under CTI, several agreements have been entered into. There is the ten-year regional plan of action for Coral Reefs, Fisheries, and Food Security. This document will require the six governments under CTI to address the key drivers—economic, social, and ecological—that influence the management and conservation of marine and coastal resources at all scales and institutional levels.

In order to achieve sustainable management of marine and coastal resources for current and future generations, the CTI countries collectively and individually commit to: (1) Designate the sustainable management of marine and coastal resources as a high and urgent ongoing priority in our national agenda; (2) Mobilize high-level public and private sector leadership; (3) Achieve enhanced regional collaboration to address important regional problems; (4) Implement needed economic, policy, and legal reforms; (5) Establish a system of sustainable funding and orient these financial resources toward achievement of the CTI Plan of Action; (6) Rapid increase of institutional and human capacity; (7) Lead effective, highly participatory, multi-stakeholder alliances; (8) Integrate conservation, management, and development; and (9) Promote public-private partnerships.

During a conference in Metro Manila on 28 October 2008, the CTI countries agreed to promote approaches to managing the marine ecosystem and resources, including the ecosystem approach, and the precautionary principle. The goals in the plan of action covers (1) priority seascapes; (2) ecosystem approach to managing fisheries and other marine resources; (3) marine protected areas; (4) climate change adaptation; and (5) threatened species.

CTI's Regional Plan of Action pushes for the adoption of EAFM in the member countries. Each member country is required to include EAFM in its national plan of action. The Philippines has drafted its national plan of action under the Integrated Coastal Management which forms part of the overall framework to achieve the five Regional CTI goals.

3.2 NATIONAL POLICY LANDSCAPE

The Philippines has no comprehensive law that embodies all the concepts and principles of EAFM. However, there is a growing recognition of this perspective and approach in current policies and plans. Noteworthy is the Aquino Administration's Philippine Development Plan (PDP, 2011 to 2016). This national plan seeks to enact policies regarding the protection and conservation of resources in order to address, among others, the issues regarding fisheries management that are in consonance with the EAFM. In particular, the current PDP seeks to enhance coastal and marine resources management by doing the following:

1. Develop and implement the national integrated coastal management (ICM) program to include principles, strategies, and action plans in accord with EO 533 (Adopting Integrated Coastal Management as a National Strategy to Ensure the Sustainable Development of the Country's Coastal and Marine Environment and Resources and Establishing Supporting Mechanisms for Its Implementation);
2. Prioritize the protection and management of mangroves, sea grasses, coral reefs, and beaches as a management unit to derive maximum benefits resulting in synergistic interactions of these four ecosystems that enhance marine productivity;
3. Apply the ecosystem approach to the management of fisheries and other marine resources, addressing transboundary policy and regulatory concerns;
4. Evaluate management effectiveness of all MPAs proclaimed under NIPAS;
5. Implement the Coral Triangle Initiative National Plan of Action and the Sulu-Sulawesi Marine Ecoregion (SSME) Conservation Plan which includes designating priority seascapes across the Coral Triangle as geographic focus of sustainable management;
6. Update nautical charts for safety at sea and protection of the marine environment;
7. Pursue claims for an extended continental shelf and delineate various maritime jurisdictions such as internal waters, archipelagic waters, territorial sea, and exclusive economic zone;
8. Conduct inventory and status of foreshore lands to identify and clarify impacts of privatization and commercialization to the environment and the fishing communities;
9. Revert abandoned, underutilized, and unproductive fishponds to mangroves;
10. Revise policies on the management of mangrove areas in order to increase mangrove cover;
11. Integrate coastal and marine water use plans into the comprehensive land use plans of LGUs;
12. Complete the delineation of municipal waters; and
13. Improve the status of coastal and marine biodiversity by safeguarding coastal ecosystems, species, and genetic diversity. (Philippine Government, PDP, 2011 to 2016)

The PDP virtually provides an opportunity to push for the strengthening, review, revision, and/or refinement of existing laws, institutional arrangements, and plans that would enable the effective application of EAFM.

While there is yet no comprehensive EAFM legislation in the Philippines, EAFM concepts and principles are contained in various laws and policies.

3.2.I RESOURCE USE and MANAGEMENT

■ 3.2.1.1 State ownership of natural resources

The use, development, and overall management of the fisheries and other coastal resources are anchored on the basic national policy that all natural resources belong to the state. Also known as the Regalian Doctrine and embodied in Article 12, Section 2 of the 1987 Philippine Constitution, this policy establishes the responsibility of the state, as owners of these natural resources, to protect and conserve these for the present and future generations.

Under this framework, the government hopes to generate development through raising revenues and imposing penalties related to natural resource use. However, this policy lacks a system of direct accountability on the part of the government since any impact on the environment and resource base is borne usually by affected residents or local communities. Because the government often lacks the will to regulate the use of coastal resources and enforce environmental laws, resources are accessible for everyone to use and destroy.

This policy on state ownership of natural resources is alien to indigenous peoples (IPs) and conflicts with their customary laws. Customary law on land and natural resources is founded upon the traditional belief that no one owns the land except the gods and the spirits, and that those who work the land are its mere stewards (Bennagen, 1991). The conflict between national law and customary law has been counterbalanced by constitutional provisions on the rights of indigenous peoples and the current Indigenous People's Rights Act (RA 8371). The Constitution provides that the state recognizes and promotes the rights of indigenous cultural communities within the framework of national unity and development (Art.2, Sec. 22, Philippine Constitution). It further provides that the state shall protect the rights of indigenous cultural communities to their ancestral lands to ensure their economic, social, and cultural well-being.

RA 8371, otherwise known as the Indigenous People's Rights Act of 1997, is the law that concretized the constitutional provisions respecting the rights of Indigenous Peoples/Indigenous Cultural Communities (IPs/ICCs). IPRA recognizes the ownership of IPs/ICCs over their ancestral lands/domains and basically deals with the civil, political, social, cultural, and tenurial rights of IPs/ICCs. Coron Island in Palawan is one of the few areas in the country whereby the IPs' territorial claims extend to the coastal marine areas.

■ 3.2.1.2 Right to a Healthful and Balanced Ecology and other Constitutional Parameters

The 1987 Constitution laid down other parameters to guide the exploration, utilization, and development of our natural resources. It protects the right of the people to a "balanced and healthful ecology in accord with the rhythm and harmony of nature" (Art. 2, Sec. 16, Phil. Constitution). The state is thus mandated to protect, advance, and promote the people's right to ecological security and health. In the case of *Oposa vs. Factoran* (224 SCRA 792), the Supreme Court had occasion to rule on the interpretation of the constitutional policy on the environment. In this case, the Supreme Court declared the "right to a balanced and healthful ecology" as a self-executory right and recognized the primacy and centrality of ecological security and health among the many rights assured by the Constitution.

Access to resources was democratized by the Constitution in that direct users of natural resources—such as farmers, forest dwellers, marginal fishermen—are guaranteed the right to continue using such resources for their daily sustenance and survival in accordance with existing laws (Art. 13, Secs. 4, 5 and 6). The fundamental law introduced the concept of small scale utilization of natural resources as a mode of natural resource utilization (Art.12, Secs. 2 and 3).

The Constitution also provides for local autonomy. This provision is reiterated by the Local Government Code (RA 7160) (LGC) which provides that "Local government units (LGU) shall share with the national government

the responsibility in the management and maintenance of ecological balance within their territorial jurisdiction” (Sec. 3 (j), RA 7160).

■ 3.2.1.3 General Environmental Policies

In 1977 or a decade before the Constitutional right to a healthful and balanced ecology was declared, Presidential Decree (PD) No. 1151 (otherwise known as the Philippine Environmental Policy) was enacted providing for government’s recognition of the people’s right to a healthy environment. PD 1151 became the basic policy governing the Philippine Environmental Statement System. Under this law, an Environmental Impact Statement (EIS) was required of projects, actions, or undertakings which significantly affect the quality of the environment.

At the same time, PD 1152, otherwise known as the Philippine Environment Code, was enacted as a comprehensive program of environmental management and protection. This Code established specific environmental management policies and prescribed environmental quality standards. These included, among others, water quality management, fisheries and aquatic resources, wildlife management, and waste management. This law provides for the conservation of “the vanishing species of fish and aquatic resources such as turtles, sea snakes, crocodiles, corals, as well as maintaining the mangrove areas, marshes and inland waters, coral reef areas, and islands serving as sanctuaries for fish and other aquatic life.”

The Philippine Environmental Impact Statement System, or PD 1586, provided in more detail the policy on the assessment of the environmental impacts of proposed projects which were provided in Section 4 of PD 1151. PD 1586 formally established the EIS system and provided for the proclamation of environmentally critical areas (ECAs) and environmentally critical projects (ECPs). Such ECAs and ECPs were identified in Proclamation No. 2146.

Development projects that impact on the coastal zone such as mining, quarrying, tourism development, and reclamation affect fisheries and coastal resources. Since Proclamation 2146 includes national parks and wildlife preserves and sanctuaries among the list of Environmentally Critical Areas, it can be used to ensure the protection and conservation of fishery resources which are part of ECAs.

The Philippine Constitution expressly states and mandates that it is the policy of the state to protect the nation’s marine wealth and reserves its use and enjoyment to Filipinos, extending protection to Filipino fishers even to offshore fishing grounds and protecting these areas against foreign intrusion. Foreigners are not allowed to fish within the Philippine waters (Sec. 7, Philippine Constitution).

The current administration has developed the five Key Development Areas (KRAs) of its social contract with the people of the Philippines. The KRA’s include integrity of the environment and climate change adaptation and mitigation, wherein sustainable natural resource utilization is being promoted. The KRA’s goal, among others, is to improve conservation, protection and rehabilitation of natural resources through sustainable use and integrated management. Hence, the KRAs recognize the need to improve protection and conservation of biodiversity and enhance coastal and marine resources management by applying ecosystems approach of the management of fisheries and other marine resources including effective environmental governance. The previous administration national development agenda has less explicit provisions on fisheries management.

3.2.2 Governance and Jurisdiction

In the last two decades, the Philippines saw the thrust towards decentralization in the management of natural resources. Decentralization accords the LGUs more powers and responsibilities. Barangays, municipalities/cities and provinces—which represent various levels of LGUs—are provided with environmental and natural resources management functions. Barangays represent the lowest unit of the LGU. They are under the municipal governments or component cities. Such municipal governments or component cities in turn are

within the management supervision of the provinces. The only exception is the highly urbanized cities (HUCs) that function like a province. Puerto Princesa City, as an HUC, functions independently of the province of Palawan.

The Local Government Code (Republic Act No. 7160) and the Philippine Fisheries Code (RA 8550) provide that among the devolved functions include the enforcement of fisheries laws and fisheries management within the municipal waters. This devolution gave rise to distinctive jurisdictional authorities over fisheries management in the Philippines. The Department of Agriculture, Bureau of Fisheries and Aquatic Resources (DA-BFAR) has jurisdiction over national waters and the Exclusive Economic Zone (EEZ), while the local government unit has primary management over the 15-kilometer area from the shoreline, known as municipal waters.

RA 8550 provides that the DA-BFAR has the mandate to enforce all laws, formulate and enforce all rules and regulations governing the conservation and management of fishery resources, except in municipal waters. Moreover, BFAR shall settle conflicts of resource use and allocation in consultation with the National Fisheries and Aquatic Resource Management Councils (NFARMC), LGUs and local Fisheries and Aquatic Resource Management Councils (FARMCs) (Sec. 65, [n], RA 8550). The DA-BFAR also has the jurisdiction to grant licenses for commercial fishing activities within Philippine waters.

The same law provides for the exclusive jurisdiction of city and municipal governments over the inland and municipal waters concerning the management, conservation, utilization, protection, development, and disposition over fishery and aquatic resources. Clearly, RA 8550 supplements the mandates of local governments under the Local Government Code (RA 7160) by empowering local governments to enact appropriate local ordinances for these purposes and enforce all fishery laws and regulations within the municipal waters (Sec. 16, RA 8550). It therefore strengthens and expands the fisheries management powers of local governments under the Local Government Code (Sec. 149, Local government Code).

Thus, local governments exercise a range of control mechanisms on the management of their fisheries and other coastal resources:

- (1) Preferential treatment to special groups: Under the Constitution (Art. XIII, Sec. 7, Phil. Constitution) and RA 8550, local governments have the power to accord preferential treatment to disadvantaged or marginal fisherfolks. The disadvantaged fisherfolks are to be accorded special privileges in the use of fishery resources other than through the licensing system that may be put in place. These groups are either those identified by the law as fisherfolk cooperatives and associations composed of residents of the city or municipality, (Secs. 17, 18 and 53, RA 8550) or marginal fisherfolk (Sec. 149, RA 7160).
- (2) Area use allocation or zoning: The allocation of geographic space for specific purposes, or commonly known as the “zoning” power of local governments, is one of the simplest methods of resource management. Local governments are required by RA 8550 to designate at least 15 percent of the total coastal area of the municipality as fish sanctuaries (Sec. 81, RA 8550). Specific zones also need to be segregated for the operation of fish pens, cages, traps, and other structures for the culture of fish, but not more than 10 percent of the surface water area of lakes and rivers can be designated as aquaculture zones (Sec. 51, RA 8550). Moreover, these structures should also not impede navigation or migration (Sec. 55 and 56, RA 8550).
- (3) Revenue and licensing: The broad licensing powers of the local governments include the imposition of rentals, fees, or charges for the grant of fishery privileges within municipal waters to erect fish corrals, aquatic beds for oysters, mussels, and similar species, and bangus fry areas (Sec. 149, RA 7160); and to issue licenses for operation of fishing vessels of three gross tons or less (Sec. 149, RA 7160). Under the Fisheries Code, cities and municipalities shall determine license fees for all fishery activities within municipal waters (Sec. 6), and shall have authority to enter into pearl farm leases within their jurisdiction (Sec. 52).

- (4) Enforcement: Local governments have absolute authority to enforce all fishery laws, rules, and regulations in addition to valid fishery ordinances (Sec 16, RA 8550), which includes all prohibited acts under the RA 8550 (Secs. 86-106). Such power is shared with other national agencies such as the BFAR, Philippine Navy, Philippine Coast Guard, Philippine National Police (Sec. 124). The DENR through the Coastal and Marine Management Division of the Protected Areas and Wildlife Bureau (PAWB) also has authority to enforce laws relating to coastal marine areas and mangrove utilization. Under DENR policies, mangroves are classified as premium hardwood and cutting and utilization of the same is prohibited.
- (5) General management powers: Local governments can set catch ceiling limitations within municipal waters, in accordance with the concept of Maximum Sustainable Yield (MSY) commonly invoked in fisheries management (Sec. 8, RA 8550); declare closed seasons for fishing (Sec. 9, RA 8550); and entirely prohibit, or at least limit, fishery activities within municipal water areas that are overfished (Sec. 23, RA 8550). Other management powers, including those not specified by RA 8550, may be derived from the general jurisdiction of the city or municipality to manage, conserve, develop, protect, utilize, and dispose of all fish and fishery or aquatic resources within municipal waters (Sec. 16, RA 8550).

The primary jurisdiction of local government units over their municipal waters excludes protected areas as these are covered by another law, the National Integrated Protected Areas System (NIPAS, RA 7586). Pursuant to RA 7586, the jurisdiction over protected areas—such as the Malampaya Sound Protected Landscape/Seascape (MSPL/S) and the Tubbataha Reef National Marine Park (TRNMP)—rests with the Protected Area Management Board (PAMB). The NIPAS Law vests upon the site-specific Protected Area Management Board (PAMB) to, among others, “decide matters relating to planning, resource protection and general administration...of the protected area.”

While this jurisdictional distinction has been viewed as a conflict area on several instances, it bears pointing out that the NIPAS law does not totally deprive the LGUs of responsibility over protected areas. The law enables LGUs to continue exercising responsibility over protected areas because local officials are mandated members of the PAMBs. In the classification of zones within municipal waters, the protected areas can be identified as separate zones. Municipal ordinances provide policy support to the protected area management plans and strategies.

RA 8550 likewise provides that local government units shall carry out their functions in consultation with the Fisheries and Aquatic Resources Management Councils (FARMCs) (Sec. 16, RA 8550). The FARMC is a participatory mechanism that enables the participation of community fishers in local fisheries governance and management. FARMCs are composed of fisherfolk organizations, cooperatives, and/or non-government organizations in the locality, in addition to representatives of the local government (Sec. 69, RA 8550).

Besides DA-BFAR and LGUs, other local administrative bodies have jurisdiction over particular water bodies. The Laguna Lake Development Authority (LLDA) Act (RA 4850) provides that the LLDA has jurisdiction over the Laguna Lake and regulates the use and exploitation of resources therein. In Palawan, the Palawan Council for Sustainable Development (PCSD) exercises jurisdiction over the whole province including its territorial waters, pursuant to the Strategic Environmental Plan for Palawan (SEP) law or RA 7611.

In addition, the Philippine Coast Guard (PCG) exercises jurisdiction in the enforcement of environmental laws within the maritime waters of the country. It also has the mandate to assist in the suppression of fishing by means of dynamite, explosives or toxic substances, or other methods as may be declared destructive by proper authorities (PD 601). The Philippine Coast Guard is also given the authority to formulate its own regulation to fully implement and enforce the provisions of the Marine Pollution Act (PD 601).

Another office, the Philippine National Police Maritime Group (PNP-MARIG), under National Headquarters PNP General Order No. 58, is tasked by the PNP to perform law enforcement functions involving the maritime environment. This includes enforcement of the Fisheries Code. Registration of fishing vessels above

three gross tons is under the jurisdiction of the Maritime Industry Authority of the Philippines which regulates the maritime industry of the country (PD 747).

In relation to governance, jurisprudence from the Supreme Court is instructive:

- In the case of *Tano vs. Socrates*, G.R. No. 110249 (August 21, 1997), the authority of the local government unit was challenged when live reef fish traders questioned the legality of Puerto Princesa City's Ordinance banning the shipment of live reef fish and lobsters outside the city. They contended that the ordinance violated their constitutional rights and deprived them of due process of law, their livelihood, and unduly restricted them from the practice of their trade, in violation of Section 2, Article XII and Sections 2 and 7 of Article XIII of the 1987 Constitution. The Supreme Court ruled in favor of the local government unit, stating that the issuance of the ordinance is well within LGUs' powers under the local government code. The High Tribunal stated that "We commend the Sangguniang Panlungsod of the City of Puerto Princesa and Sangguniang Panlalawigan of the Province of Palawan for exercising the requisite political will to enact urgently needed legislation to protect and enhance the marine environment, thereby sharing in the herculean task of arresting the tide of ecological destruction."
- The case of *Metro Manila Development Authority, DENR, et. al. vs. Concerned Citizens of Manila Bay*, G.R. Nos. 171947-48, (December 18, 2008), involved the implementation of the Solid Waste Management act, the Fisheries Code, Pollution Control law, and the Clean Water act, by different government agencies tasked to take care of Manila Bay under the said laws. Concerned citizens sued the officials of these agencies and requested the High Court to direct these agencies to clean up, rehabilitate, and protect Manila Bay. The government agencies defended themselves by saying that the clean up was a discretionary duty and there must be a specific pollution incident first before they are required to act. The Supreme Court ruled that the government agencies are duty bound to clean Manila Bay as they are mandated by law to enforce and comply with provisions of applicable law. The High Court pointed out that Section 102 of RA 8550 prohibits the introduction by human or machine of substances to the aquatic environment including "dumping/disposal of waste and other marine litters, discharge of petroleum or residual products of petroleum of carbonaceous materials/substances [and other] radioactive, noxious or harmful liquid, gaseous or solid substances, from any water, land or air transport or other human-made structure." It also emphasized that RA 9003 is a sweeping piece of legislation enacted to radically transform and improve waste management.

3.2.3 Education

The need for generating environmental awareness and education on sustainable development, including fisheries and ecological waste management, is recognized in existing laws. Under RA 9512 or the National Environmental Awareness and Education Act of 2008, the Department of Education (DepEd), the Commission on Higher Education (CHED), the Technical Education and Skills Development Authority (TESDA), the Department of Social Welfare and Development (DSWD), in coordination with the Department of Environment and Natural Resources (DENR), the Department of Science and Technology (DOST) and other relevant agencies, shall integrate environmental education in its school curricula at all levels, whether public or private, including in barangay daycare, preschool, non-formal, technical vocational, professional level, indigenous learning, and out-of-school youth courses or programs. Environmental education shall encompass environmental concepts and principles, environmental laws, the state of international and local environment, local environmental best practices, the threats of environmental degradation and its impact on human well-being, the responsibility of the citizenry to the environment and the value of conservation, protection and rehabilitation of natural resources and the environment in the context of sustainable development. The education shall cover both theoretical and practicum modules that will include, among others, tree planting, waste minimization, segregation, recycling and composting, and freshwater and marine conservation, forest management and conservation, relevant livelihood opportunities and economic benefits, and other such programs and undertakings to aid the implementation of the different environmental protection laws (Sec. 3, RA 9512).

RA 8550 also mandates the CHED, DECS and the Philippine Information Agency to conduct a nationwide information campaign on the provisions of the law, sustainable development and to promote the development, management, conservation, and proper use of the environment. RA 9003, on the other hand, strengthens the mandate of DECS and CHED to conduct information activities.

3.2.4 Ecosystems Management and Protection

■ 3.2.4.1 RA 8550, Philippine Fisheries Code

EAFM concepts and principles are contained primarily in the Philippine Fisheries Code (RA 8550). RA 8550 aims to achieve food security; limit access to the fishery and aquatic resources of the Philippines for the exclusive use and enjoyment of Filipino citizens; protect the rights of fisherfolks; ensure the rational and sustainable development, management, and conservation of the fishery and aquatic resources in Philippine water, including the Exclusive Economic Zone (EEZ) and in the adjacent high seas, consistent with sound ecological balance, protecting and enhancing the quality of the environment; and to manage fishery and aquatic resources, in a manner consistent with the concept of an integrated coastal area management (Sec. 2, RA 8550). The law also provides for the system of licensing and permitting for utilization of aquatic resources.

RA 8550 provides for a participatory approach in fisheries management. It provides for the establishment of Fisheries and Aquatic Resources Management Councils (FARMCs) in the national and municipal levels. The FARMCs assist in the formulation of the fisheries development plan in the national and municipal level. In the municipal and city level, FARMCs are empowered to enforce fisheries laws within municipal waters and recommend for the establishment of fish sanctuaries and refuge in their respective municipalities (Sec. 69, RA 8550).

RA 8550 also provides for the protection and conservation of marine habitats by establishing marine and fish sanctuaries. It mandates that 25 percent but not more than 40 percent of bays, foreshore lands, continental shelves, or any fishing ground shall be set aside for the cultivation of mangroves to strengthen the habitat and spawning grounds of fish. In addition, local government units are also given the mandate to designate at least 15 percent of its coastal areas as fish sanctuaries and refuges (Sec. 81, RA 8550). It also mandates to designate closed seasons and designate catch ceilings.

The law also prohibits several activities that are destructive to the marine ecosystem, such as use of noxious or poisonous substance, use of explosives, use of destructive methods or gear to coral reefs and other Marine habitat, which include collection and disposition of silica, pebbles, sand, and other substances that make up the marine habitat; exploitation and exportation of corals; aquatic pollution; conversion of mangrove areas into fishponds; and catching species that are identified as threatened (Sections 86–103, RA 8550).

The law also provides for the protection of marine habitat by prohibiting the collection of white sand, pebbles, and other elements that make up the marine habitat. The law does not mention EAFM in particular as a management scheme; however, its concepts are integrated in the Fisheries Code. To ensure the detailed implementation of the Fisheries Code, BFAR has issued fishery administrative orders (FAOs). These issuances are contained in the appendix of national laws, particularly in the list of administrative issuances.

■ 3.2.4.2 RA 7586, National Integrated Protected Areas System (NIPAS) and RA 7160, Local Government Code

Other key legislations are the National Integrated Protected Areas System (NIPAS, RA 7586) and the Local Government Code (RA 7160). The NIPAS law provides for the system of establishing marine and terrestrial protected areas by laying the down the guidelines and criteria for their establishment. It provides for the identification of zones within protected areas for proper management. It also provides for the creation of a

Protected Area Management Board (PAMB), which exercises jurisdiction and management over the protected area.

RA 7160 or the LGC is a significant legislation that has influence on coastal resources and fisheries management. It concretizes the constitutional policy on government decentralization and democratization. Where in the past coastal resource-management programs originated from national government agencies such as the DA-BFAR and the Department of Environment and Natural Resources (DENR), the LGC reversed this process and gives primary management responsibilities to local government units. Section 17 of the Local Government Code identifies and provides for the devolution of some environmental and natural resource management functions from the DENR to the LGUs.

The LGC gives local government units greater fiscal autonomy through various powers to levy certain taxes, fees, or charges. This law also provides for people's direct participation in the planning and implementation of resource-management plans, thus establishing a system where local communities, non-government organizations (NGOs), academic and scientific institutions can become partners of the local government units. It provides that:

1. It is the duty of every national agency or government-owned or -controlled corporation authorizing or involved in the planning and implementation of any project or program that may cause pollution; climatic change; depletion of non-renewable resources; loss of cropland, rangeland, or forest cover; and extinction of animal or plant species to consult with the local government units, non-governmental organizations, and other sectors concerned and explain the goals and objectives of the project or program, its impact upon the people and the community in terms of environmental or ecological balance, and the measures that will be undertaken to prevent or minimize the adverse effects thereof (Sec. 26);
2. Prior consultations are required and the approval of the local council concerned must first be had before any such project or program may be implemented (Sec. 26);
3. Every local government shall exercise those powers essential to the promotion of the general welfare and shall enhance the right of the people to a balanced ecology (Sec. 26).

LGUs play a vital role in zoning land and water resources in their municipalities. Several municipalities all over the country have completed the process of Comprehensive Land and Water Use Plan (CLWUP) preparation. In Palawan, the CLWUPs of the municipalities were based on the respective ECAN zoning of municipalities. Specific management zones have been identified in these CLWUPs such as communal forest, watershed areas, marine reserves, and sanctuaries, among others.

Municipalities and cities are mandated to enforce fisheries laws within their respective municipal waters, including conservation of mangroves, as part of the basic services they are obliged to render. Provinces are mandated to enforce laws for the protection of the environment (Sec. 17).

Local chief executives have mandates for the protection of marine resources and their habitats. The Punong Barangay (PB) is mandated to enforce all laws and ordinances applicable in Barangay, particularly those for the protection of the environment. It is also the duty of the PB to ensure the delivery of basic services within their barangay (Sec. 389 [1], [9] and [12]).

Other laws provide for the management, protection of aquatic/marine habitats, ecosystems and resources against pollution and destruction. These are briefly described below:

■ 3.2.4.3 RA 4850, Creating the Laguna Lake Development Authority (LLDA), July 18, 1966

This law gave the LLDA the power to manage the development of Laguna Lake, which includes formulation of a management plan and approval of any project that will be implemented in the Laguna Lake. This is the largest

lake in the country, occupying some 90,000 ha. Laguna Lake support substantial capture fisheries and aquaculture activities

■ 3.2.4.4 PD No. 979, Amending PD No. 600, Governing Marine Pollution, August 18, 1976

Aiming to protect the country's marine life, this law prohibits the dumping of oil, noxious, gaseous and liquid substances, and other harmful substances to human health, living resources, and marine life within the territorial waters and navigable waters of the Philippines. It also penalizes violations or transgressions of its provisions.

■ 3.2.4.5 PD No. 1067, the Water Code of the Philippines, December 31, 1976

The use of freshwater resources is governed by the Water Code, a law that establishes the framework for appropriation, control, and conservation of water resources in the country [PD 1067, Sec. 2 (a)]. Under this law, a body called the National Water Resources Council (NWRC), now renamed as the National Water Resources Board (NWRB) is supposed to prescribe measures for the conservation and improvement of the quality of Philippine water resources and provide for the prevention, control, and abatement of water pollution.

An important provision of the Water Code is Article 51 which establishes a public easement within an identified zone along shores of the seas and lakes, which also called the "salvage zone." The foreshore area (defined by DENR administrative orders as that area which is covered and uncovered by the water tide) and salvage zone are supposed to be free of any structures and from any human settlement. The DENR takes charge of regulating the use of the foreshore area in coordination with the LGU.

Foreshore and shore areas can be habitat of marine wildlife and several fishery activities take place in these areas. Development projects such as tourism, settlement, port development, and reclamation affect foreshore areas.

■ 3.2.4.6 PD No. 1151, Philippine Environmental Policy, June 6, 1977

This law laid down the country's policy on environmental concerns, and seeks to recognize and fulfill the responsibility of each generation as trustee and guardian of the environment for succeeding generations. It provides for the improvement in the utilization of renewable and non-renewable resources.

■ 3.2.4.7 PD No. 1586, Philippine Environmental Impact Statement System, June 11, 1978

Commonly referred to as the EIS System, PD 1586 is the law establishing the system for environmental impact assessment (EIA) in the Philippines. When properly applied and used, the EIA can achieve much in terms of environmental protection and resource allocation. As a policy, the EIS System seeks to (a) create, develop, maintain and improve conditions under which man and nature can thrive in productive and enjoyable harmony with each other; (b) fulfill the social, economic, and other requirements of present and future generations of Filipinos; and (c) insure the attainment of an environmental quality that is conducive to a life of dignity and well-being (Sec. 1, PD 1151).

The EIS system applies to water bodies, wildlife sanctuaries, and protected areas as these are identified as environmentally critical areas. The system also covers resource extractive activities, including commercial fishery activities as these are considered environmentally critical projects.

■ 3.2.4.8 PD No. 2152, 1981

This proclamation declared the whole province of Palawan and other parts of the Philippines as Mangrove Reserves. Hence, cutting and extractive activities involving mangroves are prohibited. This complements the provisions of other laws on mangroves.

Mangroves are nursery grounds of fisheries and aquatic resources. Palawan's rich mangrove areas explain its relatively abundant fishery resources. To date, at least half of the fisheries consumption in Metro Manila still come from Palawan.

■ 3.2.4.9 RA 7942, Philippine Mining Act of 1995, March 3, 1995

RA 7942 is the principal law regulating mining and the mining industry. It governs the exploration, development, utilization, and processing of all mineral resources as well as quarrying activities. It likewise provides for the management of mining and quarrying activities in the coastal zone.

Quarrying of coastal resources such as sand or mineral deposits near the water affect coastal habitats of fish and aquatic resources or entire coastal ecosystems. Particularly affected are fisheries habitats, such as mangroves, seagrass beds, and coral reefs. Except for small-scale mining and quarrying permits, which are issued by the provincial government, mining permits are issued by the DENR. All mining disputes are lodged with the DENR.

All persons or entities who acquire mining permits under the act are required, among others, to undertake environmental protection and enhancement programs as part of their work program, and to biologically rehabilitate disturbed areas (Sec. 69). Mining and quarrying are prohibited in protected areas, game and wildlife reserves and sanctuaries.

■ 3.2.4.10 RA 8535, Agriculture and Fisheries Modernization Act of 1997 (AFMA), December 22, 1997

AFMA aims to develop the agricultural and fisheries sector of the country from a resource-based sector to a technology-based sector. AFMA is more economic in orientation as its priorities include sustained increases in production, industrialization and full employment. In seeking to modernize the agricultural and fisheries industry in the country, Strategic Agriculture and Fisheries Development Zones (SAFDZs) are being established to serve as centers for development in agriculture and fisheries sectors. The law also considers environmental and sociocultural soundness as important considerations in development.

■ 3.2.4.11 RA 9003, Ecological Solid Waste Management Act, January 26, 2001

Anchoring its basic principles on the right of every citizen to a healthful and balanced ecology, this law aims to achieve proper waste management through the mobilization of local government units and the private sector. The law prohibits burning of wastes, provides for incentive schemes and has innovative features, specifically citizen's suits. The law also prohibits dumping of wastes on "esteros" and other water bodies, such as creeks and rivers. These water bodies ultimately reach the sea and affect fishery areas.

■ 3.2.4.12 RA 9147, Wildlife Resources Conservation and Protection Act, July 30, 2001

This law provides for the conservation, management, and regulations relating to all wildlife-including fisheries. Included in the law is the establishment of the wildlife-management fund, which will be used for the rehabilitation of destroyed habitats. This legislation is particularly relevant given that some species being targeted by the municipal fishers are considered as "threatened" such as the undulate wrasse (*Cheilinus undulatus*), popularly called as mameng, which has an endangered status; and squaretail leopard grouper (*Plectropomus areolatus*), with a vulnerable status.

■ 3.2.4.13 RA 9275, the Philippine Clean Water Act, March 22, 2004

This law seeks to attain better water-quality management and protection, preservation and revival of the country's quality of fresh, brackish, and marine waters. It also contains prohibitions on the dumping of any solid waste or toxic substance in any water body. Moreover, it also provides for a system of incentive for those who practice techniques, technologies, and activities for better water quality management. Good water quality is important not only for fisheries production, but it also makes the harvested fishery products safe for human consumption.

■ 3.2.4.14 RA 9483, Oil Pollution Control Law, June 2, 2007

This law aims to establish an adequate compensation scheme in cases involving oil pollution. Strict liability standards are imposed in relation to oil pollution damages.

This legislation was informed by the experience of the Guimaras oil spill and other oil pollution cases. The Guimaras experience showed the severe impact of the oil spill on fishery activities and resources.

■ 3.2.4.15 RA 9593, the Tourism Act of 2009, May 12, 2009

This law promotes tourism as a source of employment and answer to the economic dilemma of the country. Most tourist destinations in the Philippines are in coastal and marine areas, and therefore an increase in tourism activities in coastal areas will directly affect its ecosystems and its fishery resources.

3.2.5 Funding Concerns

Funding has been a perennial constraint in the implementation of national laws. The Philippine Wildlife Act provides for a wildlife management fund, which will be used for the rehabilitation of destroyed habitats and to support scientific research, enforcement and monitoring activities, as well as enhancement of capabilities of relevant agencies. The Fisheries Code and AFMA provide for a continuing appropriation to ensure their implementation. The costs of implementation of RA 6969 are included in the annual budget of the DENR.

In the case of the Marine Pollution Law, an initial amount of five (5) million pesos was appropriated for the development and procurement of adequate capability for containment and recovery of oil spilled in inland waters and high seas. The NIPAS law provides for a trust fund called the Integrated Protected Areas Fund (IPAF) to finance projects that ensure the implementation of the NIPAS system, including the protected area established. The IPAF can also be a repository of donations, endowments and grants in the form of contributions.

4

THE PALAWAN EXPERIENCE ON EAFM

In recognition of its biogeographic character, particularly its rich biodiversity and its fragile character as an island ecosystem, the province of Palawan has been governed by a special law called the Strategic Environmental Plan for Palawan Act (RA 7611). Enacted in 1992, the SEP law provides the overarching conservation policy and sustainable development framework for the province of Palawan. All municipalities in Palawan are therefore governed by this conservation and development framework. The SEP law seeks to adopt a "... graded system of protection and development control over the whole of Palawan, including its tribal lands, forest mines, agriculture areas, sea grass beds and surrounding sea" called the Environmentally Critical Areas Network (ECAN).

ECAN is a zoning scheme designed to protect critical ecosystems and habitats like the coastal/marine habitats while allowing sustainable economic development to take place. It prescribes specific uses for each designated zone. The ECAN includes the coastal zone which covers foreshore areas, mangrove areas, coral reefs, and fishing grounds.

The SEP law created a multi-agency governing body called the Palawan Council for Sustainable Development (PCSD) which is tasked to provide appropriate policy guidance to achieve sustainable development and direct the implementation of the SEP law. Under the Office of the President (currently through the DENR), the PCSD is comprised of Palawan's two representatives to Congress, chief executives of the province and city, heads of municipal and barangay leagues, and regulatory agency representatives. The PCSD has nine mandated members, but it currently has 21 members. The Palawan Council for Sustainable Development Staff (PCSDS) provides staff function and technical assistance to the PCSD.

Implementation of the ECAN framework is localized through the local ECAN Boards which are mandated to oversee the preparation and monitoring of municipal plans. ECAN Boards are composed of municipal and barangay officials, representatives from national government agencies in the municipality, community groups, and nongovernment organizations (NGOs).

To operationalize the ECAN strategy in coastal/marine areas, the PCSD issued guidelines through Resolution No. 99-144 (Implementing Guidelines in the Operationalization of the Environmentally Critical Areas Network for Coastal/Marine Component), which has been amended by Resolution No. 05-250, providing for the following:

1. Classification of coastal/marine zones into core zone, multiple use zone and ancestral coastal/marine waters;
2. Preparation of comprehensive local management plan for coastal/marine areas by the LGU through its ECAN board with the assistance of the PCSDS, which will be reviewed by the PCSD;
3. Identification of zones and preliminary mapping to be undertaken by the LGU and its ECAN board or a similar body;
4. Conflict resolution to be undertaken by the LGU through its ECAN board or similar body;

5. Declaration of an ECAN map for coastal/marine areas;
6. Implementation of the comprehensive local management plan through the enactment of an ordinance; and
7. Establishment of ECAN board as mandatory.

The PCSD's active role in fisheries management has been manifested in its issuance of resolutions, such as in the regulation of fishery activities relating to the live-fish gathering and trading. PCSD Resolution No. 07-340 provides for a quota system in live reef fish trade in the province. The PCSD has installed an accreditation system for all live-fish transport operators, gatherers, catchers, traders and carriers. This system is being implemented through PCSD Administrative Order No. 5, which was amended by PCSD Resolution No. 10-402 (incorporating the quota system). However, the quota system needs to be adopted by the provincial government.

PCSD Resolutions Nos. 00-166 and 06-316 has for its purpose the protection of mangroves in Palawan. It declared mangrove "debarking" and possession of "tanbarks" illegal, and provided for guidelines in the protection of mangrove forests in the province. These resolutions are now implemented through PCSD Administrative Order No. 11. The PCSD also issued PCSD Resolution No. 03 – 220 reiterating the Prohibition on Pebble Quarry along Beaches and Shorelines, as provided under Section 92, Republic Act No. 8550.

PCSD also intensified its enforcement efforts by deputizing Wildlife Enforcement Officers (WEO) with the support of LGUs, and through the establishment of the Environmental Enforcement Center (EEC, established by PCSD Resolution No. 09-383), in the municipality of Rizal to address issues on massive mangrove debarking and wildlife smuggling. The EEC has expanded to cover the whole province. The EEC established in the Calamianes covers four municipalities (Coron, Busuanga, Culion, and Linapacan) and will focus on the protection of coastal and marine areas in this area.

PCSD also provided for a system of incentives for persons instrumental to the apprehension of violators of fisheries and other environmental laws (PCSD Resolution No. 92-3). PCSDS has created its own in-house detection and enforcement unit that was organized in December 2010, with the support of the PNP, Palawan Wildlife Rescue and Conservation Center (PWRCC) and Palawan State University (PSU).

4.1 FISHERIES MANAGEMENT IN THE CITY OF PUERTO PRINCESA AND THE PROVINCE OF PALAWAN

4.1.1 City Ordinance

The City of Puerto Princesa has enacted its Environmental Code, which consolidated existing ordinances on environmental protection and conservation, including those relating to coastal management and fisheries. This local code reiterated the provisions of the Fisheries Code and made additional regulations in accordance with said law.

■ 4.1.1.1 Ordinance No. 396, Series of 2009

Ordinance No. 396 or the Code of Conduct for the Conservation, Protection and Restoration (CPR) of the sources of life of the City of Puerto Princesa was enacted in 2009. It aims to "promote the principles of ecologically sustainable development, apply a precautionary approach to avoid risk of environmental harm and ensure that all aspects of environmental quality affected by pollution and waste, including ecosystem sustainability and valued environmental attributes, are considered in decisions relating to the environment."

The ordinance provides for a Coastal Resources Management Framework (CRMF) which serves as guide to coastal Barangays in undertaking the delineation, establishment, and maintenance and protection of municipal waters was established. The CRMF will be developed under the supervision of the City Mayor. It also provides for the formulation of Coastal Zoning and Management Guidelines which will serve as guide, together with the CRMF, in formulating Barangay coastal zoning and management plans.

Under the ordinance, the city's municipal waters was classified into four different zones: the strict protection zone, recreation and ecotourism zone, rehabilitation or core zone, and sustainable productive use zones. In addition, the ordinance also provides for strict protection of mangrove forests and other coastal resources that make up or is part of marine habitat.

The ordinance reiterates the city's imposition of a total ban on live fish reefs trade, including the transport of live fish within the city. The ordinance aims to protect its marine resources through enhanced fisheries law enforcement. The Bantay Dagat program under the Office of the City Mayor assist in the implementation of fisheries laws within the municipal waters of Puerto Princesa.

4.1.2 Provincial Ordinances

The Province of Palawan has not codified its ordinances relating to fisheries, fisheries management and environmental protection. However, the provincial government has passed the following ordinances which relate to fisheries management.

■ 4.1.2.1 Ordinance No. 50, Series of 1993

As early as 1993, the Provincial Government of Palawan has already made efforts to protect marine ecology by prohibiting the use of the "Pa-aling" method of fishing. Pa-aling is a modified version of muro-ami that uses "bubbles" instead of rocks to drive the fish into the nets. Big commercial fishing vessels with large nets and employing more than a hundred divers scare the fish towards a big bagnet and in the process catch small fish and breeders. The province has determined that this fishing method violates the concept of sustainable development and destroys the livelihood of sustenance fishermen.

■ 4.1.2.2 Ordinance No. 2, Series of 1993, as Amended by Ordinance Nos. 5 and 29, Series of 1994 and Ordinance No. 332, Series of 1998

This ordinance was enacted to deal with the Live Reef Fish Trade (LRFF) and ensure the protection of the province's marine resources. The ordinance highlights the imperative need to protect and preserve the remaining coral reefs in the province, and allow the devastated ones to propagate and regenerate themselves. Thus, the provincial government imposed a five-year prohibition in the catching, selling, gathering, and possession of live marine coral dwelling organisms and provided penalties for its prohibition. However, in 1994, it exempted from the coverage of the ordinance the Mother of Pearl (*Pinctada maxima*) and other pearl-producing bivalves and oysters, and species of aquatic organism aside from the Mameng (Family Scaridae), Panther or seniorita and ornamental or aquarium fishes (Family Balisdae).

In 1998, the Provincial Board of Palawan decided to extend the ban for another five years. It also included excluded the families of Pomacantidae, Pomacntridae, and Chaetodontidae of ornamental and aquarium fishes, Mameng caught in the wild weighting 50 grams to 300 grams and 3 to 7 inches in length to be cultured in pen or cages for 8 to 10 months period.

The provincial board also designated Bantay Palawan (renamed to Kilusan Sagip Kalikasan or KSK during the time of former Gov. Joel T. Reyes) to assist in the enforcement of the ordinance. It also provided for the creation of a MFARMC in each municipality to help in the enforcement of the ordinance as stated in the Fisheries Code of the Philippines.

The amendment provided for additional requirements in the permitting system on the LRFT by requiring the proponents to secure a Compliance Certificate and for the cyanide testing of every shipment of live reef fish.

■ 4.1.2.3 Ordinance No. 8, Series of 1993

This ordinance established the closed season for the catching of cuttlefish in the territorial waters of Palawan. It also provided for penalties in cases of violations of the ordinance.

■ 4.1.2.4 Ordinance No. 854, Series of 2005

This ordinance prohibits the entry of Sodium Cyanide, whether in raw or processed form, in the province of Palawan. Exemption is given to mining activities, when necessary, and to academic and research activities. Proponents are required to secure a permit from the PCSD.

■ 4.1.2.5 Ordinance No. 819, Series of 2005

This ordinance prohibits the use of compressors as breathing apparatus in all fishing activities in the province of Palawan. The use of compressors has already caused paralyses and deaths among fishermen.

■ 4.1.2.6 Ordinance No. 941, Series of 2006, as Amended by Ordinance No. 946, Series of 2006

This ordinance provides for the integrated regulations concerning the live reef fish trade in the province. It recognizes the concept of sustainable development by seeking to balance the need for rational utilization and conservation.

The ordinance mandates the municipalities in the province to coordinate with the FARMCs concerned and the PCSD for the identification and establishment of a marine sanctuary or refuge within their respective municipal waters. It also mandated the municipal governments to adopt a closed season after coordination with the concerned FARMCs. However, the ordinance does not contain any provision that will ensure the compliance by the municipalities of its provisions.

This ordinance also sought to intensify monitoring of fishing activities in the province and defined the responsibility of the KSK in the monitoring and enforcement of the ordinance. However no logistical support and technical capabilities on the part of the enforcers makes the implementation of the accreditation system difficult. In addition, lack of political will among local politicians further complicates the implementation of the regulations regarding LRFT in the province.

WWF'S LIVE REEF FISH TRADE (LRFT) PROJECT: AN EAFM INITIATIVE

The sustainability of the LRFT has been identified as one of the major sub initiatives of the Coral Triangle Initiative. Being an active partner under the CTI's Coral Triangle Support Program, WWF embarked on an LRFT project in Palawan following an initial scoping of LRF resources and trade in the province.

WWF was aware that LRFT has been the subject of a debate for years. As previously discussed, the province-wide and city-wide ordinances imposing a ban on the LRFT in the mid-nineties reached the Supreme Court and the decision that emanated from the High Court helped in shaping the discourse on local governance. Notwithstanding this challenge, WWF saw an opportunity to pursue and apply the EAFM approach in the LRFT project.

Starting with research works and surveys, WWF complemented its initiatives with engagements of the LGUs, PCSD, BFAR, DENR and other NGOs. The municipality of Taytay was a pilot site. Their partnership with the LGU enabled them to work with community stakeholders and provide technical assistance in the drafting of a municipal fisheries ordinance and conduct fishery law enforcement trainings. Additional efforts included the preparation of a sustainability plan on LRFT and the establishment of a municipal fisheries adjudication board that would deal with local fishery cases.

WWF studied the supply chain with stakeholders to institute a sound mechanism for the sustainability of the trade (WWF Annual Report, 2008). Besides field researches, they conducted meetings, dialogues, and workshops among various stakeholders to present the results of their field studies and elicit recommendations.

Scoping and trade data were collected in seven municipalities in the province (WWF, 2008). Likewise, a policy review was conducted with a partner NGO to identify policy gaps and proposals. The results of the researches and policy review were presented to the seven municipalities and formed the basis for the development of a municipal sustainability plan. The EAFM approach was built into in the plan. The plan includes the establishment of marine protected areas, strengthening of monitoring and fishery law enforcement efforts, and development of other livelihood options.

As pointed out in various workshops and consultations, WWF supports the LRFT to become a more responsible industry. It collaborates with industry and government to design a national and regional solution to put the trade a path of sustainability. WWF also promotes increased production of live reef fish food trade from sustainable full cycle mariculture to put a stop to overfishing of wild stocks. (WWF, 2011)

In this LRFT project, the WWF demonstrated that the purpose of an ecosystem approach to fisheries is to balance diverse needs and apply an integrated approach in fisheries management. To continue with an absolute ban on the LRFT in light of the involvement of municipal fishers in the catching and gathering, and the growing LRFT industry would not solve the problem. The engagement with fishers, catchers and traders and other industry players as part of the project helped in the development of a sustainability plan. The challenge now is in the implementation of the plan.

Thirteen key EAFM concepts are presented in relation to the applicable national laws to and the government agencies tasked to implement these laws (Table 1). The table shows the laws and provisions of some laws that apply or implement the specific EAFM concept indicated. It also shows the agencies which are mandated to implement these laws. This illustrates that EAFM concepts are articulated in some of our existing laws, policies and institutions.

TABLE I. Key EAFM concepts, relevant national policies/legislations and government agencies mandated to implement these policies.

EAFM Concepts (FAO, 2003)	Applicable National Policies / Legislations	Mandated Agencies
Introducing Marine Protected Areas (MPAs)	RA 7586, The National Integrated Protected Areas Systems Act.	DENR thru the Protected Areas Management Board (PAMB).
	RA 7611, Strategic Environmental Plan For Palawan Act.	Palawan Council for Sustainable Development (PCSD).
	Sec. 69, RA 8550, Fisheries Code of the Philippines.	DA-BFAR and LGUs concerned.
Gear modifications (improve selectivity in fish catch)	RA 8550, Fisheries Code of the Philippines.	DA-BFAR and LGUs.
	RA 7160, Local Government Units (Power of the Sanggunian).	
Energy efficiency and pollution	P.D NO. 979 as amended or the Marine Pollution Act.	DENR-EMB
	Article 91, paragraph B, Nos. 4, 5 and 6 of PD 1067, Water Code of the Philippines.	National Water Resources Board
	RA 6969, Toxic Substances and Hazardous and Nuclear waste Control Act.	DENR
	Sec. 20, paragraph b of RA 7586, National Integrated Protected Areas Systems Act.	DENR/PAMB
	RA 8550, Fisheries Code of the Philippines.	DA-BFAR
	RA 9003, Solid Waste Management Act.	National Solid Waste Management
	RA 9147, Wildlife Conservation and Protection Act.	Commission/Local Government Units concerned
	RA 9275, Philippine Clean Water Act.	DENR-PAWB, DA-BFAR, PCSD DENR
RA 9483, Oil Pollution Compensation Act.	DOTC/PPA/MARINA/PCG	

EAFM Concepts (FAO, 2003)	Applicable National Policies / Legislations	Mandated Agencies
Capacity and effort limitation (restrict the total size of the fleet and restrict the fishing activity of fleets and hence reduce fishing mortality)	Provision on allowable activities within Municipal waters, RA 8550, Fisheries Code of the Philippines. RA 7160, Local Government Units (Power of the Sanggunian)	LGUs concerned
Catch control	RA 8550, Fisheries Code of the Philippines. RA 9147, the Wildlife Conservation and Protection Act.	DA-BFAR DENR-PAWB/DA-BFAR/PCSD
Preventing habitat degradation including control of the impact from fishing gear on habitats	RA 7586, The National Integrated Protected Areas Systems Act. RA 7611, Strategic Environmental Plan For Palawan Act. RA 8550, Fisheries Code of the Philippines. RA 9147, the Wildlife Conservation and Protection Act.	DENR/PAMB PCSD DA-BFAR DENR-PAWB/PCSD/DA-BFAR
Rehabilitation	RA 7611, SEP Law Fisheries Code	PCSD DA-BFAR, LGUs, DENR
Population manipulation	RA 9147, the Wildlife Conservation and Protection Act.	DENR-PAWB/PCSD
Right-based management approach	RA 7611, Strategic Environmental Plan For Palawan Act. (Preferential Rights to utilize and manage given to IPs/ICCs) RA 8371, Indigenous Peoples Rights Act. RA 8550, Fisheries Code of the Philippines. RA 9147, the Wildlife Conservation and Protection Act.	PCSD NCIP DA-BFAR DENR-PAWB/PCSD/DA-BFAR

EAFM Concepts (FAO, 2003)	Applicable National Policies / Legislations	Mandated Agencies
Education/research	RA 7611, Strategic Environmental Plan For Palawan Act.	PCSD
	RA 8435. Agriculture and Fisheries Modernization act (Research on how to increase production)	DA-BFAR
	RA 8550	DECS, CHED, Philippine information Agency
	RA 9003	DECS, CHED, TESDA
	RA 9512	
Incentives	Secs.25 and 26 of RA 9275, Philippine Clean Water Act	National Water Resources Board
	RA 8435, Agriculture and Fisheries Modernization Act	DA-BFAR
Protection and conservation	RA 8550, Fisheries Code of the Philippines.	DA-BFAR
	RA 7611, Strategic Environmental Plan For Palawan Act.	PCSD
	RA 7586, The National Integrated Protected Areas Systems Act.	DENR/PAMB
Spatial and temporal controls on fishing (off season/no go zones)	RA 8550, Fisheries Code of the Philippines.	DA-BFAR
	RA 7611, Strategic Environmental Plan For Palawan Act.	PCSD
	RA 7586, The National Integrated Protected Areas Systems Act.	DENR/PAMB

5

INSIGHTS, CONCLUSIONS, AND RECOMMENDATIONS

The EAFM approach and its concepts and principles are not new to the Philippines. Given the country's various initiatives on CRM in general and fisheries management as well as the existence of several national laws, the EAFM concepts and principles have been applied and/or used in various ways. However, the implementation has not been comprehensive in view of policy and institutional gaps. A key challenge, therefore, is to address these gaps and issues in order to move these initiatives forward.

5.1 POLICY CONFLICTS (CONFLICTING THRUSTS, MANAGEMENT PERSPECTIVE)

5.1.1 AFMA prioritizes agricultural productivity and industrialization while the Fisheries Code gives premium to conservation

RA 8435 or the AFMA law provides for the establishment of Strategic Agriculture and Fisheries Development Zone (SAFDZ) within the identified Network of Protected Areas for Agricultural and Agro-Industrial Development (NPAAAD). Agricultural lands are ecologically fragile and their inclusion into this network will entail their conversion into industrial uses. Agricultural land conversion can and have resulted in serious environmental degradation. Mangrove areas and fish sanctuaries can be affected if they form part of this network.

SAFDZ will be utilized for food and non-food production and agro-industrialization, which would necessarily include fisheries infrastructure, industrial complex, production, and processing zone (RA 8435, Section 6). Areas included in the NPAAD are also areas included under strict protected areas where construction and industrial development are not permitted. Areas for strict conservation and protection include mangrove areas, coral reefs, fish sanctuaries, and habitats of rare and endangered species (RA 9147). Conversions of mangrove areas are strictly prohibited under RA 8550 and the SEP law.

For the protection of mangroves, there must be a defined area immediately adjacent to mangrove forest that should serve as a buffer zone and should not be declared as alienable and disposable (A&D) and not subject to titling for private ownership. Mangrove areas already declared A&D and titled need to be evaluated to determine whether adequate resource management activities (such as aqua-silviculture practices) exist to enable the mangroves to survive.

Amending laws is a tedious and time-consuming process. Pending legislative amendments in Congress, LGUs and PAMBs can work with BFAR to agree on the full implementation of their CLWUPs or PA management plans. The plan will be the basis for determining the allowable or prohibited activities or projects in their area.

5.1.2 Conflicting provisions in various laws

Exportation of live reef fish caught from the wild is prohibited under RA 8550. However, the provincial ordinance allows the gathering of live reef fish under existing ordinances (ELAC, 2009).

RA 8550 is also in conflict with the Philippine Mining Act (RA 7942) in that it prohibits (Sec. 92) the collection, gathering and trade of silica, pebbles and sand that makes up the marine habitat. However, RA 7942 allows the mining of sand and silica and the collection of pebbles. The absence of an operational definition of marine habitat under RA 8550 is used as an excuse in order to cover up violations of RA 8550 in relation with Section 92.

At the national level, the National Convergence Initiative of three national agencies—consisting of DENR, DA, and DAR—can take up such policy issues and discuss on feasible options.

5.1.3 NIPAS conflicts with the Fisheries Code concerning the municipal water income of municipalities within protected areas

Fees relating to the use of the protected area as well as fines imposed for violations of protected area laws are supposed to go to the IPAF. The Local Government Code of 1991, however, provides that municipal LGUs shall impose fees on fishing activities within municipal waters. Since marine protected areas are not included in municipal waters, the jurisdiction of the LGU to impose fees and fines becomes an issue. To address this issue, the DENR and LGU and other stakeholders can include specific provisions in the protected area management plan on how raise funds or generate income.

5.1.4 DA-BFAR's production-oriented fisheries management regime

The existing DA-BFAR management paradigm is to focus on commodity production. This is understandable considering the national goal of food security. In the process, non-commodity ecosystem services such as the development of ecotourism projects or services are not considered. Government agencies must be engaged so they can expand their scale of management objectives and include non-commodity ecosystem services.

DA-BFAR, either directly or through the National Convergence Initiative, must be engaged by EAFM advocates or stakeholders to examine EAFM concepts in fisheries. In this way, the EAFM may complement such traditional management concepts as maximum sustainable yield and total allowable catch.

5.1.5 Unclear and limited strategy on EAFM

RA 8550 can be considered relatively comprehensive, but its management strategies remain to be generally unimplemented. Provisions on maximum sustainable yield and total allowable catch remain to be theoretical. At the practical level, these concepts have not yet been fully translated into local ordinances and concrete guidelines. There is still no guideline on how to implement integrated coastal management provided under RA 8550. The law does not provide for a clear strategy on how sustainability will be achieved.

Provisions of other fisheries-related laws are also limited and focus on specific concerns. For instance, the Ecological Solid Waste Management Act focuses on waste management; the Oil Pollution Control law focuses on oil pollution; and the Toxics and Hazardous Substances Act deals with toxic and hazardous wastes.

5.2 JURISDICTIONAL ISSUES (OVERLAPS AND FRAGMENTATION)

Ideally, EAFM must work within a simpler and/or streamlined institutional arrangement. However, with the variety of laws concerning fisheries management, a range of management bodies have been established without full or detailed institutional assessments. These have resulted in the overlapping of mandates of different bodies tasked to manage the fishery resources and the enforcement of the laws.

DENR and DA-BFAR jurisdictions intersect or overlap on several areas provided under the Fisheries Code Batongbacal (2003), and these four major areas need to be studied in detail:

1. Strategic Planning—Particularly, how to implement integrated coastal management;
2. Standard Setting—Classification of rare, threatened, and endangered species; establishment of catch ceilings and closed seasons in certain waters; aquaculture; pollution; biosafety and biodiversity;
3. Area Classification—Mapping and surveys; migratory paths of fishery species; fisherfolk resettlement area; and
4. Monitoring and Evaluation—Preparation of EIS and issuance of ECC.

While there have been joint administrative orders on the implementation of the Wildlife Act, and there is currently a national convergence initiative which includes integrated coastal resource management among its key concerns, more efforts are needed to ensure the clear implementation of the aforementioned areas.

National and LGU projects likewise either overlap or are in conflict with one another. A good example is on mining and other development projects. The case of the provincial government of Rizal versus DENR on the establishment of the sanitary landfill is one example. The local government opposed vigorously the establishment of a sanitary landfill in an area which forms part of their watershed. In addition, several LGUs have issued moratorium ordinances to suspend or stop mining operations in their provinces and municipalities. The DENR has continuously assailed these ordinances.

Attempts to reinforce, harmonize, and bridge the gaps of existing legislations were made in the form of additional issuances by administrative bodies and proposed amendments to existing laws. There is Fisheries Administrative Order No. 233 relating to Aquatic Wildlife Conservation which was issued by the DA-BFAR to implement Wildlife Act. It created the National Aquatic Wildlife Committee (NAWC) and Regional Aquatic Wildlife Committee (RAWC). These bodies will recommend to the DA Secretary the introduction, reintroduction, application for utilization, and development of aquatic wildlife for trade, bioprospecting, and conservation breeding for threatened species. The order also provides for the creation of the Philippine Aquatic Red List Committee (PARLC), which will determine the criteria for the determination of threatened aquatic wildlife and their classification as critically, endangered, vulnerable, or other internationally accepted categories. It authorized the deputation of aquatic wildlife enforcement officers, and provided for the conduct of information and education campaign (IEC) on wildlife conservation and protection.

In Palawan, three main agencies are concerned with mangrove protection. The DENR is mandated to implement the forestry code and department administrative regulations to protect mangroves. The PCSD is tasked to implement the SEP law which delineates mangrove areas as core zones or protected areas. The DA-BFAR is tasked to implement the RA 8550, administer FLA applications and monitor fishpond development. One agency cannot handle all the responsibilities on mangrove protection. There is need for systematic and organized collaborative effort among the concerned agencies, LGUs, NGOs, people's organizations (POs), and the members of the community.

The Department of Energy (DOE), DENR and DA-BFAR have no integrated approach on managing and monitoring energy exploration activities in municipal waters and offshore areas. In one instance, a service contract for oil exploration was issued covering a portion of the expanded Tubbataha Reefs Natural Park (TRNP). The TRNP PAMB had no prior knowledge about the contract.

An advocacy agenda among concerned stakeholders must be developed with champions in mind to push for policy proposals. While this is being developed, these concerns must be presented to the concerned Cabinet Clusters. DOE, DENR, DA, and other agencies are part of the Cabinet Cluster on Climate Change and Environmental Protection.

5.3 INSTITUTIONAL AND GOVERNANCE CONCERNS

The DENR, DA-BFAR and DILG are supposed to implement the Fisheries Code provision on the reversion of abandoned, unutilized and underutilized fishponds. Several proposed guidelines have been drafted as a result of various consultation-workshops and mangrove conferences. The three agencies need to address this urgent concern to obviate further threats to mangrove ecosystems.

On the matter of marine pollution for instance, various laws provide for it—namely, RA 8550, the Marine Pollution Act, the Toxic Wastes Act, the Wildlife Act, and the NIPAS Act. Each law provides for a particular body to enforce its provisions.

Despite the range of management and enforcement bodies tasked to manage, protect, and develop fisheries and coastal resources, weak enforcement continues to be a challenge. Such weak enforcement is attributed to the lack of technical capability and proper funding and conflicts among mandated agencies.

In Palawan, the accreditation system established by the provincial government of Palawan and the PCSD that seeks to regulate the LRFT and address the problems in cyanide fishing is not well implemented. The enforcement of its policies has been weak due to lack of technical capabilities of enforcers and logistic supplies (Dalabajan, 2005).

Another important concern is the government's passive role in disseminating vital information to the public with regard to fisheries management (including EAFM) and other related laws and programs. While government research agencies collect and gather data, the dissemination to the public of vital information is very limited.

Administrative mechanisms are not integrated to enable EAFM to thrive. The spatial jurisdictions of LGUs over municipal waters are sometimes unclear because these waters have not been delineated. Territorial overlaps between LGUs can be a conflict if priorities between LGUs vary, or if the local leaders have different political affiliations. Otherwise, co-management agreements and partnerships are possible as these are provided under the LGC. There is a relative abundance of CRM initiatives involving co-management agreements among several LGUs.

Special bodies like PAMBs have their own boundaries which can cover barangays and municipalities. Large number of PAMB members can make governance processes, especially decision-making and planning, quite cumbersome. In addition, inadequate financial resources can be the toughest institutional challenge. Broadening existing CRM or fisheries management efforts towards EAFM entails costs and most often, LGUs' resources are insufficient to adequately carry out these concerns.

A key consideration is that such fiscal options must be available for the long term, with a view to integrating them into the normal day-to-day and year-to-year expenditures of the government office concerned. This is to avoid being dependent on project funds which are often restricted to limited time horizons. In addition, schemes for sharing and mutual support must also be considered as the availability of funds for new management activities is often not ideal (Batongbacal, 2009).

RECOMMENDATIONS

To reiterate, while there is yet no EAFM-specific legislation, there are policies and programs that have pursued specific management strategies and designated conservation areas in the coastal zone where the EAFM approach can and has been operationalized. However, weak enforcement problems and policy gaps have hampered the application of these laws.

We must therefore consider certain areas of work or intervention that are needed to move towards EAFM, as follows:

1. Information and education activities on EAFM among national and local agencies, as well as concerned civil society groups and community stakeholders; these activities can build on existing CRM or FRM trainings, seminars and conference, including major activities of LGU leagues; dissemination of EAFM materials, projects, case studies through print and broadcast media must be part of a national plan;
2. Policy support to municipalities or areas which are critical habitats to marine resources and those which can be considered as hotspots in fishery crimes; an engagement with key government agencies within the National Convergence Initiative and other cabinet clusters must be carefully planned so they can consider this as part of their plan;
3. Legislative initiative, specifically, to propose specific provisions on EAFM in the ongoing review of the Philippine Fisheries Code as well as in pending bills on CRM and coastal fisheries resource management; an advocacy agenda must be developed by key stakeholders;
4. Up-scaling of fisheries management as an organizational modality towards achieving EAFM—Innovations in the Philippines on fisheries management can be scaled up from existing site or localized management to address broader ecosystem management needs (see Pomeroy, et al., 2010);
5. Linkages with environmental and conservation projects of the leagues of municipalities in order to identify possible partnerships to develop local legislation and programs (IEC, research, surveys, etc.) applying EAFM;
6. Multi-agency engagements: (DENR, PCSDS, LGU leagues, NGOs) groups or bodies working on CRM and fisheries management must plan out strategies to address current policy gaps; the current national convergence initiative involving the DENR, DA and DAR is a potential mechanism to address key issues involving CRM and to push for EAFM;
7. Technical assistance to LGUs and executive agencies to enable them to fill in policy gaps within their areas of jurisdiction; and
8. Engagement with national government agencies, especially with the National Convergence Initiative of the DENR, DA and DA towards the implementation of the provisions of the Philippine Development Plan on EAFM.

The existence of MPAs, fishery reserves and sanctuaries can serve as the foundation for EAFM approaches and strategies. There is a need to engage management bodies governing these protected areas in order to revisit or review their management plans from the perspective of EAFM. We can start engaging first the active management bodies in biodiversity hotspots, and then develop them as possible demonstration sites for other areas.

Palawan has most of these key biodiversity areas and marine protected areas. These include the El Nido and Taytay Managed Resource Protected Area (ELTMRP), the Malampaya Sound Protected Landscape and Seascape (MSPLS), the Puerto Princesa Subterranean River National Park (PPSRNP) and the Tubbataha Reefs Natural Park (TRNP). The EAFM approach must be integrated in the management plans and strategies of these protected areas. The process must include engagements with management bodies concerned and the range of stakeholders who benefit from the resources of these protected areas.

An evolutionary strategy is also appropriate in order to allow area-specific customization to be undertaken, depending on the type of fisheries ecosystem involved, and the existing jurisdictional and administrative arrangements that must be considered within each fisheries management area (Batongbacal, 2009). The development of an advocacy agenda can consider the following pending bills in the House of Representatives.

1. House Bill No. 509, which seeks to amend the marine pollution law or PD 600 as amended, by increasing the penalty for violations thereof and defining the guidelines under which the commandant of the Coast Guard may allow dumping of waste materials within the navigable waters of the Philippines and authorizes

the adoption of a dumping system taking into account the nature, composition and characteristic of the waste material.

2. House Bill No. 207, which seeks to amend Sec. 4, par. 58 of RA 8550 by providing a more accurate definition of municipal waters by adopting the archipelagic principle. The bill also adds additional provisions on how to delineate municipal waters by providing guidelines thereof since it was not in the Fisheries Code.
3. House Bill 208, which seeks to increase the penalties imposed by RA 8550 by adding, among others, the confiscation of fishing gears and vessels to penalties that only prescribes confiscation of catch. Payment of additional damages and reparation are added to the penalty for conversion of mangrove forest to fishpond. The bill also included as prohibited acts the cutting and burning of mangroves and the use of super lights in Philippines waters. It also institutionalized the incentive scheme that the Bantay Dagat and LGUs are implementing. Moreover, it also reclassified fish gears from active and passive to allowable and not allowable.
4. House Bill 300, which seeks to add shark fining, among the prohibited acts under the Fisheries Code or RA 8550.
5. House Bill 444, which seeks to prohibit the catching, capture and gathering of fish eggs, fish fry, and fingerlings caught in the ocean, sea and lakes but not covering those hatched or propagated in legally accredited hatcheries and ponds.
6. House Bill 1062, or the Oil Spill Liability Act, which seeks to create an oil spill liability fund.
7. House Bill 1070, which seeks to regulate shipping vessels coasting Philippine waters for the protection of shores.
8. House Bill 57, which seeks to provide for the protection of coastal resources by establishing protected areas in every coastal municipality and city in the Philippines, and for the guidelines and mechanism for their creation thereof.

In pursuing an advocacy agenda, it is important to identify possible champions who understand and appreciate EAFM and help carry these proposals forward. We can start with CRM practitioners, legislators (both national and local), and civic-minded leaders who are involved in CRM and fisheries management activities. With the range of initiatives and projects we have in the Philippines, and with a new government that explicitly mentions EAFM in its six-year Philippine Development Plan, the opportunities are rife for EAFM to move forward.

6

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APPENDIX I.

INTERNATIONAL LAWS

INTERNATIONAL AGREEMENTS

1. UN Convention on Human Environment, (Stockholm, June 5 to 16 1972), In this convention several principles were formulated and agreed to regarding the responsibilities of humans to its environment. The resulting document also contains an action plan on how to realize the implementation of these principles. Among the responsibilities identified were man's responsibility to ensure the protection and improvement of his environment and its natural resources for present and future generation through careful planning and management. Also contained therein is the states' responsibility to prevent pollution of the seas that can harm living resources and marine life. In this conference the need to maintain, restore and improve the earth's capacity to produce renewable resources was also acknowledged.
2. Convention Concerning the Protection of the World Cultural and Natural Heritage (Paris, France, October 17 to November 21, 1972, at its seventeenth session).

Also known as the World Heritage Convention, this was the result of the General Conference of the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1972. According to this Convention, outstanding natural and man-made features are part of heritage of all people and mankind as a whole has certain rights with respect to their conservation.

This convention has significant bearing to the province of Palawan since the province is home to two World Heritage Sites: the Tubbataha Reefs Natural Park (TRNP) and the Puerto Princesa Subterranean River National Park (PPSRNP).

Convention on International Trade in Endangered Species of Wildlife Flora and Fauna (CITES) Washington DC., United States of America, on 3 March 1973, went into full force on 1 July 1975.

Implemented as early as 1975, the Convention on International Trade in Endangered Species of Wildlife Flora and Fauna prohibits, with certain exceptions, the commercial trading of species that are threatened with extinction (listed on Appendix I) and controls the international trading of species that are not yet threatened but may become so (listed on Appendix II).

Similar to the country's commitment to the CBD, the Philippine Wildlife Conservation and Resources Act (RA 9147) was passed to implement our commitments in this Convention.

3. Convention on Biological Diversity (CBD) (Art. VI, (a)(b); Art. 8, 9 and 10), Rio de Janeiro, Brazil, 1992.

The Convention on Biological Diversity was one key result of the Rio Summit in 1992. This covenant requires contracting parties to develop national strategies, plans or programs for the conservation and sustainable use of biological diversity that will include the establishment of a system of protected areas, rehabilitation and developing legislation for the protection of threatened species. It provides for a mechanism that would give financial and technical assistance to developing countries for surveying and conserving biodiversity. World Commission on Environment and Development (WCED) and United Nations Conference on Environment and Development (UNCED) (Rio de Janeiro, 3-14 June 1992).

4. The Cancun Declaration

In May 1992, the Government of Mexico, in close consultation with FAO, organized the International Conference on Responsible Fishing that led to the adoption of the Declaration of Cancún. The Conference requested FAO to draft an International Code of Conduct for Responsible Fishing, as set out in the Declaration. The principles embodied in the Declaration include (a) cooperation by States on bilateral, regional and multilateral levels to establish, reinforce and implement effective means and mechanisms to ensure responsible fishing in the high seas, (b) States fishing on the high seas should cooperate with other States to ensure conservation and rational management of the living resources, and (c) States should cooperate to deter reflagging of vessels to avoid conservation and management measures (www.fao.org, accessed September 3, 2011).

5. The World Commission on Environment and Development can be considered as one of the most important international policy discussions that tackled environment and development. Held in 1987, the WCED published a paper entitled *Our Common Future* which underscores the strong link between poverty and environmental problems, and suggested “a new era of economic growth that is based on policies that sustain and expand the environmental base” (Dela Cruz, 1990). It was then that the term “sustainable development” came into being.

Sustainable Development became the theme of the United Nations Conference on Environment and Development (UNCED) summit in June 1992. Held in Rio de Janeiro, Brazil, the summit resulted in non-binding statements containing a framework on convention on climate change, a convention on biological diversity, a declaration of sustainable development of forests and Agenda 21, virtually a very wide ranging environmental action for the next century.

The Rio Declaration (1992) is a non-binding statement that contains 27 broad guiding principles on environmental policy and emphasizes, among others, the right of human beings to ecological security and environmental protection as part of economic development. Agenda 21 is a program that was approved during the Rio Summit and contains 40 action plans designed to promote sustainable development.

For example, Principle 15 of the Rio Declaration stipulates that since most development activities entail some environmental effect, a burden of proof is placed on project proponents to demonstrate that their proposed activities are ecologically sustainable and therefore, will not seriously or irreversibly affect the physical and cultural environment in which they operate.

6. Framework Convention on Climate Change, May 1, 1992, New York, USA

This treaty recommends the curbing of emissions of carbon dioxide, methane and other “greenhouse” gases thought to warm the climate by trapping the sun’s heat close to earth. It seeks to achieve the “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.”

7. United Nations Convention on the Law of the Sea (UNCLOS), Geneva, Switzerland, 1994

The United Nations Convention on the Law of the Sea is a declaration that obliges states to protect and preserve the marine environment. States have the sovereign right to exploit their natural resources pursuant to their environmental policies and in accordance with their duty to protect and preserve the marine environment. It provides for measures to prevent, reduce and control pollution of the marine environment from all sources and includes measures necessary to protect and preserve rare or fragile ecosystems and the habitat of depleted, threatened or endangered species and other forms of marine life.

8. United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks—UNFSA (July 24 to August 4, 1995, New York, USA)

The UNFSA aims to ensure the long-term conservation and sustainable use of straddling and highly

migratory fish stocks, and includes general principles for their conservation and management and provisions on, inter alia: application of the precautionary approach; compatibility of conservation and management measures; cooperation for conservation and management; Regional Fisheries Management Organizations (RFMOs); collection and provision of information and cooperation in scientific research; non-members of RFMOs; duties of, and compliance and enforcement by, flag states; international, sub-regional and regional cooperation in enforcement; procedures for boarding and inspection; measures taken by port states; special requirements and forms of cooperation with developing countries; and dispute settlement. The Agreement establishes a set of rights and obligations for states to conserve and manage the two types of fish stocks as well as associated and dependent species, and to protect the marine environment, it was entered into force in December 11, 2001 and the Philippines signed the agreement in the same year. (IISD, earth Negotiation Bulletin, vol. 7, No. 61, May 29, 2006).

9. The FAO Code of Conduct for Responsible Fisheries (Rome, 20 October to 2 November 1995)

The code consists of twelve articles and set the principles and international standards of behavior and practices to ensure effective conservation, management and development of living aquatic resources, with due respect for the ecosystem and biodiversity. The first five articles deal with nature and scope, objectives, relationship with other international instruments, implementation, monitoring and updating, and special requirements of developing countries. Article 6 deals with general principles while the remaining articles cover specific subjects. These are: fisheries management, fishing operations, aquaculture developments, integration of fisheries into coastal area management, post-harvest practice and trade, and fisheries research. The code places a great emphasis on the regional and sub-regional fisheries organizations for its implementation. (www.fao.org, accessed September 3, 2011).

10. The Malawi principles (Lilongwe, Malawi, 26-28 January 1998)

Twelve principles and characteristics of EAF were identified during a workshop on EAF.

11. International Plan of Action for Reducing incidental catches of sea birds in long-line fisheries (IPOA SEABIRDS) Rome 1999

This is a voluntary instrument which applies to states whose fishermen are engaged in long-line fishing, and have determined that they have a problem relating to accidental catch of sea birds, and this plan of action provides for the mitigating measures to be undertaken by the said states (FAO, IPOA, 1999, pg. iv).

12. International Plan of action for the conservation of sharks (IPOA SHARKS) Rome 1999

Like the IPOA SEABIRDS, this is a voluntary instrument which applies to states that are engaged in shark fishing. The states must make an assessment if they have a problem in conservation of sharks; if they do, this document provides for the necessary mitigating measures that should be undertaken by the said state.

13. International Plan of Action for the Management of Fishing Capacity (IPOA-CAPACITY), Rome, 1999

This plan of action aims to address the issue of overfishing, degradation of marine fisheries, and food production. It also seeks to ensure the sustainability of fisheries resources. The plan of action is also based in the code of conduct for responsible fisheries (CCRF), the IPOA is a voluntary instrument. The Philippines adhere to this plan of action and the Bureau of Fisheries and Aquatic resources have issued Fisheries Admin Order No. 223.

Series of 2003, implementing a Moratorium on the issuance of new Commercial Fishing Vessel and gear License (CFVGL) as part of a precautionary approach to fisheries management.

14. United Nations Millennium Declaration, (New York, USA, September 6 to 8 2000)

In this declaration, member states of the United Nations reaffirmed their faith and commitment in the UN organization, its purpose and its principles. This includes the organization's principle in protecting our common environment, through promotion of sustainable development, intensifying efforts in resource conservation and to stop unsustainable exploitation of water resources.

15. Cartagena Protocol on Biosafety to the Convention on Biological Diversity, (Montreal, 2000)

The protocol aims to provide protection in the safe transfer, handling, and use of living modified organisms as a result of modern biotechnology that may have adverse effect on the conservation and sustainable use of biological diversity. It has a special focus on transboundary movements.

16. Bangkok Declaration and Strategy for Aquaculture Development Beyond 2000, Bangkok, Thailand (February 2000)

The declaration was adopted by at least 540 participants of the Conference on Aquaculture in the Third Millennium. It acknowledged the contribution of aquaculture in food security, and its contribution as a growing industry in the economy of developing nations. The declaration calls for a more responsible aquaculture practice that is within the principles of the FAO Code of conduct for responsible fisheries.

17. International Plan of Action for Illegal, Unreported and Unregulated fishing (IPOA-IUU) (FAO, Rome, 2001)

This plan of action, based on the provisions of CCRF, is a voluntary instrument which aims to implement measures to prevent, deter and eliminate IUU fishing. These measures focus on all State responsibilities, flag State responsibilities, coastal State measures, port State measures, internationally agreed market-related measures, research and regional fisheries management organizations. Special requirements of developing countries are considered. Under the Coral Triangle Initiative, the Philippines' National Plan of Action included measures to be implemented to combat IUU.

18. The Reykjavik Conference on Responsible Fisheries in the Marine Ecosystem (1-4 October 2001 at the University Cinema and Conference Center in Reykjavik, Iceland)

The conference resulted in the approved Reykjavik Declaration on Responsible Fisheries in the Marine Ecosystem. The declaration states that in order to achieve sustainable and responsible fisheries in marine ecosystems, each nation must individually and collectively incorporate ecosystems consideration in the management of their fisheries. The concept of Ecosystem-based fisheries management (EBFM) was born in this declaration. (<http://www.iisd.ca/download/asc/sd/sdvol61num1.txt>, accessed September 22, 2011).

19. World Summit on Sustainable Development, Johannesburg, South Africa, August 26 to September 4, 2002

The summit adopted the Plan of Implementation on Sustainable Development. The plan of action includes protecting and managing the natural resource base of economic and social development by providing among others the intensification of water pollution prevention, ensuring sustainable development of the world's oceans by environmental protection, sustainable use and conservation of marine resources and the promotion of the ecosystem approach in fisheries management.

20. The Ramsar Convention on Wetlands, as amended in 1982 and 1987 (Ramsar, Iran)

This convention deals with the conservation of wetlands and its ecosystems. A list of wetlands of International importance was made, and each contracting state is duty bound to conserve wetlands and conduct studies regarding its ecosystem.

REGIONAL TREATIES

1. The Association of Southeast Asian Nations (ASEAN), second declaration, (3) and (5), signed in Bangkok, Thailand on 8 August 1967. ASEAN aims to promote food security and sustainable development of fisheries through greater collaboration with other concerned regional and international organizations.
2. The Southeast Asian Fisheries Development Center (SEAFDEC) is an initiative concerned with the promotion of fisheries development among member countries in the Southeast Asian Region. SEAFDEC has four departments which are concerned with Marine Capture Fisheries Training (Thailand), Marine Fisheries Research (Singapore), Aquaculture Research (Philippines), and Marine Fishery Resource Development and Management (Malaysia). (December 1967).
3. The Asia-Pacific Fishery Commission (APFIC), (formerly titled the Indo-Pacific Fisheries Council (IPFC), Baguio, Philippines, February 1948, 9 November 1948), is concerned with assisting its member countries to achieve accelerated fisheries development and management. The Commission has played a significant role in influencing the member countries' national fisheries development policies and planning.
4. The Asia-Pacific Economic Cooperation (APEC), created in 1989 in Canberra, Australia. This organization aims to sustain the growth and development of the region for the common good of its peoples, contribute to the growth and development of the world economy as well as to enhance the positive gains both for the region and the world economy, resulting from increasing economic interdependence, to include encouraging the flow of goods, services, capital and technology.
5. The Brunei Darussalam, Indonesia, Malaysia, Philippines' East ASEAN Growth Area (BIMP-EAGA), March 24, 1994, Davao City, Mindanao, Philippines. Its major concern is to create broad avenues for private sector to participate, facilitate the freer movement of people, goods and services in order to stimulate the sub-regional economy by rapidly expanding its market and resource base as well as share common infrastructure and national resources. [March 24, 1994, Davao City, Mindanao, Philippines].

APPENDIX 2.

NATIONAL LAWS

A. MAIN LAWS

1. Republic Act No. 8550, Fisheries Code of the Philippines, February 25, 1998.
2. Republic Act No. 9147, Wildlife Resources Conservation and Protection Act, July 30, 2001.
3. Republic Act No. 7586, National Integrated Protected Areas System, June 1, 1992.

B. SUPPORTING LAWS

1. Republic Act No. 4850 or the Laguna Lake Development Authority Act, July 18, 1966.
2. Presidential Decree No. 474, Providing for the Reorganization of Maritime Functions in The Philippines, Creating the Maritime Industry Authority, And for Other Purposes, Sec. 12 (a), enacted June 1, 1974.
3. Presidential Decree No 601, The Coast Guard Law Consolidating Fragmented Functions and for Other Purposes, Secs. 2 and 5, December 9, 1974.
4. Presidential Decree No. 979, An Act Amending Presidential Decree No. 600 or the Marine Pollution Act, August 18, 1976.
5. Presidential Decree, 1067, Water Code of the Philippines, December 31, 1976.
6. Presidential Decree 1151, Environmental Policy, June 6, 1977.
7. Presidential Decree 1152, Environmental Code of the Philippines, (Title II, water Quality Management, Title IV, Chapter I, Natural Resources Management and Conservation) June 6, 1977.
8. Presidential Decree 1586, Philippine Environmental Impact Statement System (EIS) Law, June 11, 1978.
9. Presidential Decree No. 2152, declaring the entire province of Palawan and certain parcels of the public domain and/or parts of the country as mangrove forest reserves, 1981.
10. Republic Act No. 6969, Toxic Substances and hazardous and Nuclear waste Control Act, October 26, 1990.
11. Republic Act 7076, People's Small Scale Mining Act of 1991, June 27, 1991.
12. Republic Act No. 7160, Local Government Code, 1991.
13. Republic Act No. 7611 or the Strategic Environmental Plan for Palawan Act, Secs. 7 to 11, June 19, 1992.
14. Republic Act No. 7942, Philippine Mining Act, March 3, 1995.
15. Republic Act 8371, Indigenous People's Rights Act, October 29, 1997.
16. Republic Act No. 8435, Agriculture and Fisheries Modernization Act of 1997, December 22, 1997.
17. Republic Act No. 9003, Ecological Solid Waste Management Act, January 26, 2001.

18. Republic Act No. 9275, Philippine Clean Water Act, March 22, 2004.
19. Republic Act No. 9483, Oil Pollution Compensation Act, June 2, 2007.
20. Republic Act No. 9512, the National Environmental Awareness and Education Act of 2008, December 12, 2008.
21. Republic Act No. 9593, the Tourism Act of 2009, May 12, 2009.
22. Republic Act No. 10121, Philippine Disaster Risk Reduction and Management Act, May 27, 2010.

APPENDIX 3.

ADMINISTRATIVE ISSUANCES

BFAR

1. FAO 36 as amended by FAO 68 prohibiting the killing, gathering, possessing and selling of marine turtles.
2. FAO 36 which established a closed season period for the gathering or killing of marine turtles, turtle eggs, and turtle shells.
3. FAO 88 ss 1968, providing for the regulations governing the conservation of turtles, turtle eggs, and turtle shells in the Philippines.
4. General Administrative Order No. 106, Series of 1971, Rules And Regulations Governing Fishing In Lakes And Inland Waters Within Watershed Reservations Throughout The Country, February 4, 1971.
5. FAO 158 ss. 1986 , FAO 156-I ss 1986, prohibiting the gathering, taking, conducting, selling, transporting, or possession of Mollusks belonging to the Genus Triton, triton charonia, and Cassis.
6. FAO 164 ss 1987, Rules and Regulation governing the operations of Hulbot Hulbot in Philippine Waters, October 31, 1987.
7. FAO 168 ss 1990, proving for the rules and regulations governing the gathering, culture and exportation of shelled mollusks (phylum Mollusca). May 22, 1990.
8. FAO 168-I ss 1991 amending Sec. 14 of FAO 168. September 15, 1991.
9. FAO 169 ss 1990, Prohibiting the exportation of fresh Euchuma seaweeds. July 22, 1990.
10. FAO 173 ss 1991, as amended by FAO 173-I ss 1991 banning the exportation of Bangus fingerlings. March 9, 1991.
11. FAO 184 ss 1992, Guidelines in the experimental collection of precious and semi precious corals in Philip-pines waters. May 2, 1992.
12. FAO 185 ss 1992, as amended by FAO 185 ss 1997 (August 20, 1997) prohibiting the taking or catching, selling, purchasing, possessing, transporting and exporting of whales, porpoises and Dolphins. december 16, 1992.
13. FAO 188 ss 1993, providing for the regulations governing the operations of commercial fishing in Philip-pines waters using tuna purse seine.
14. FAO 190 ss 1994 Regulations governing "Pa-aling" fishing operations in Philippine waters. March 21, 1994.
15. FAO 193 ss 1998, prohibiting the taking, catching, selling, purchasing and possessing, transporting and exporting of Whale Sharks and Manta Rays. April 12, 1998.
16. FAO 197 ss 2000 providing for the rules and regulations governing the Lease of Public Lands for Fishpond Development. Signed February 23, 2000.

17. Fisheries Administrative Order No. 196, Series of 200, Guidelines On The Creation And Implementation Of Fisheries And Aquatic Resources Management Council (Farmcs), January 21, 2000.
18. Fisheries Administrative Order No. 198, Series of 2000, Rules And Regulations On Commercial Fishing, February 23, 2000.
19. FAO 201 ss 2000 banning the use of active gear in municipal waters. September 6, 2000.
20. Fisheries Administrative Order No. 202, Series of 2000, Ban On Coral Exploitation And Exportation, September 6, 2000.
21. FAO 203, ss 2000, banning fishing by means of Muro-Ami and other like methods destructive to Coral Reefs and other Marine Habitats. September 6, 2000.
22. FAO 204 ss 2000 providing for the restrictions on the use of superlight in fishing. September 6, 2000.
23. FAO 208 ss 2001, Conservation of Rare, threatened and endangered fishery specie. Signed May 17, 2001.
24. FAO 210 ss 2001, providing for the rules and regulations on the exportation of Fresh, Chilled and frozen fish and fishery/aquatic products. May 17, 2001.
25. FAO 214 ss 2001 the code of practice for Aquaculture.
26. FAO 217 ss 2001, Obstruction to defined Migration Path. October 17, 2001.
27. Fisheries Admin Order NO. 223, series of 2003 as amended by FAO 223-I, declaring a moratorium in the issuance of Commercial Fishing Vessel and Gera License in compliance with the IPOA in fishing capacity. December 29, 2003.
28. FAO 222 ss 2003, Regulating the operations of hulbot hulbot or Danish purse seine. April 4, 2003.
29. Fisheries Administrative Order No. 223, Series of 2003, Moratorium on the issuance of new Commercial Fishing Vessel and gear License (CFVGL) as part of a precautionary approach to fisheries management. Signed December 29, 2003.
30. FAO 229 ss 2009, Guidelines on the Registration of Freshwater Ornamental Fish Export Facility. December 9, 2009.
31. Fisheries Administrative Order No. 233, Series of 2010, Aquatic Wildlife Conservation, April 16, 2010.
32. FAO 236 ss 2010, providing for the rules and regulations on the operations of purse seine and ring net vessels using fish aggregating device (FADs) locally known as Payaos during the FAD closure period in compliance with the compatibility measures of WCFP-CMM 2008-01. July 6, 2010.
33. DENR, DA and PCSD also issued a joint administrative order which serves as the IRR of the Wildlife act. (DENR, DA, PCSD Joint Admin Order No. 01 ss 2004).
34. FAO 237 ss 2009, providing for the regulations requiring the installments of Juvenile and trash fish excluder device (JTED) in trawls in the Philippines.

PCSD

1. PCSD Resolution No. 92-3 , Resolutions Granting Incentives Or Award To Persons Instrumental In The Apprehension Of Violators Of The Fishery And Environmental Laws.
2. PCSD Resolution No. 92-10, Resolution Declaring A Total-War Policy Against Illegal Fishing In The Province Of Palawan And Vigorously Urging The Strengthening Of Existing Mechanism And Procedure For Effective Enforcement Of This Declared Policy.

3. PCSD Resolution No. 93-39, Resolution Opposing The Operation Of "Pa-Aling" Fishing Gear In Palawan.
4. PCSD Resolution No. 94-48, Resolution Reiterating The Opposition Of The Palawan Council For Sustainable Development To The Operation Of The "Pa-Aling" Fishing Method In Palawan.
5. PCSD Resolution No. 95-87, A Resolution Urging The Sangguniang Panglalawigan To Revoke Provincial Ordinance No. 29 S.1994.
6. PCSD Resolution No. 95-89, Resolution Urging The Department Of Agriculture To Formulate And Issue The Appropriate Instrument To Ban Completely Live Fish Trading In Palawan.
7. PCSD Resolution No. 95-90, A Resolution Urging The Congressmen Of The First And Second Districts Of Palawan To Incorporate In The Fisheries Code And/Or To Initiate Legal Measures To Completely Ban Live Fish Trading In Palawan And In The Entire Philippines.
8. PCSD Resolution No. 95-91, A Resolution Urging The Honorable Members Of The Sangguniang Panlalawigan Of Palawan To Pass An Ordinance Prohibiting Or Regulating Possession Of Cyanide In The Province Of Palawan.
9. PCSD Resolution No. 97-109a, Resolution Adopting The Sangguniang Panlalawigan Ordinance Regulating The Use And Possession Of Sodium Cyanide.
10. PCSD Resolution No. 98-116, A Resolution Urging The Sangguniang Panlalawigan To Pass A Uniform Fisheries Ordinance For The Whole Province Of Palawan.
11. PCSD Resolution No. 98-118, A Resolution Requiring All The Carriers Of Live Fish By Land, Air And Sea In Palawan To Obtain Permit From The PCSD And Authorizing The Philippine National Police To Implement The Monitoring Activities.
12. PCSD Resolution No. 98-118-A, Resolution Adopting Republic Act No. 8550 Otherwise Known As "The "Philippine Fisheries Code Of 1998."
13. PCSD Resolution No. 98-122, Resolution Authorizing The Bureau Of Fisheries And Aquatic Resources (Bfar) To Issue Permit To Yuki Aqua-Culture Corporation For The Export To Japan Of 50 Kg Per Day Of *Tridacna Crocea* Locally Known As "Let-Let."
14. PCSD Resolution No. 98-124, A Resolution Amending PCSD Resolution #98-118 To Read As Follows: "A Resolution Requiring All Carriers Of Live Fish By Land, Air And Sea; And Catchers, Shippers, Fishing Boat Operators, Dealers And All Others Concerned With The Business Of Catching And Shipment Of Live Fish From Palawan To Obtain Permit From The PCSD And Authorizing The Philippine National Police To Implement The Monitoring Activities."
15. PCSD Resolution No. 03-209, Resolution Amending PCSD Administrative Order No. 00-05, Series Of 2000 (Revised Guidelines For The Accreditation, Regulation, And Monitoring Of Live Fish Catching, Culture, Transport And Trading In Palawan).
16. PCSD Resolution No. 03-211, A Resolution Further Amending PCSD Administrative Order No. 00-05, Series Of 2000 (Revised Guidelines For The Accreditation, Regulation And Monitoring Of Live Fish Catching, Culture, Transport And Trading In Palawan).
17. PCSD Resolution No. 07-340, A Resolution Adopting A Quota System For The Live Fish Trade In Palawan And Indorsing The Same To The Sangguniang Panlalawigan For Information And Action.
18. PCSD Resolution No. 08-357, A Resolution Declaring A Moratorium In The Issuance Of Sep Accreditation In The Live Reef Fish For Food Industry.

DENR

1. DAO 10 ss 1998 provide for the guidelines in the establishment and management of CBFM projects in Mangrove areas.
2. DAO 30 ss 2003 providing for the implementing rules and regulations of the EIS law.
3. DAO 17, ss 2007, provides for the rules in special uses within protected areas such as sustainable ecotourism, irrigation/waterway and aquaculture.
4. DMC 01 ss 2006 prohibiting the titling of lands and areas suitable for fishery purposes/operations even within alienable and disposal lands.
5. DMC 1 ss 2006 providing for the prohibitions on the titling of lands and areas suitable for fishery purposes even within alienable and disposable land.

APPENDIX 4.

CITY ORDINANCE

Puerto Princesa City Ordinance No. 396 or the Code of Conduct for the conservation, protection, and restoration (CPR) of the sources of life of the City of Puerto Princesa. (All Ordinances related to the environment have been integrated in this Ordinance.)

APPENDIX 5.

PROVINCIAL ORDINANCES

1. Provincial Ordinance No. 50, series of 1993, An Ordinance Prohibiting the use of “Pa-Aling” fishing Method within the territorial Jurisdiction of Palawan, Dec. 14, 1993.
2. Provincial Ordinance No. 2, series of 1993, as amended by Ordinance nos. 5 and 29, series of 1994 and Ordinance No. 332, series of 1998, “An Ordinance prohibiting the catching, Gathering, possessing, buying, selling, and shipment of live marine coral dwelling aquatic organism”, 1993.
3. Provincial Ordinance No. 8, series of 1993, An Ordinance Prescribing a closed season for the catching of cuttlefish in the territorial waters of Palawan, June 29, 1993.
4. Provincial Ordinance No. 854, series of 2005, An Ordinance Banning The Entry Of Sodium Cyanide Whether, In Raw Or Processed Form, In The Province Of Palawan, Providing Exemption and Penalties for Violation thereof and for other purposes.
5. Provincial Ordinance No. 819, series of 2005, An Ordinance Banning The Use Of Compressors As A Breathing Apparatus In All Fishing Activities In The Province Of Palawan And Prescribing Penalties for the violation thereof, February 23, 2005.
6. Provincial Ordinance No. 941, Series Of 2006, As Amended By Ordinance No. 946, Series Of 2006, An Ordinance Providing For A Sustainable And Integrated Regulation Of Live Reef Fish Industry, Imposing Certain Conditions For The Catching, Trading, And Shipment Of Live Fish Out Of The Province Providing Penalties For Violations Hereof And For Other Purposes.

APPENDIX 6.

HOUSE BILLS

1. House Bill No. 509 seeks to amend the marine pollution law or PD 600 as amended, by increasing the penalty for violations thereof and defining the guidelines under which the commandant of the Coast Guard may allow dumping of waste materials within the navigable waters of the Philippines and authorizes the adoption of a dumping system taking into account the nature, composition and characteristic of the waste material.
2. House Bill No. 207 seeks to amend Sec. 4, par. 58 of RA 8550 by providing a more accurate definition of municipal waters by adopting the archipelagic principle. The bill also adds additional provisions on how to delineate municipal waters by providing guidelines thereof since it was not in the Fisheries Code.
3. House Bill No. 208 seeks to increase the penalties imposed by RA 8550 by adding, among others, the confiscation of fishing gears and vessels to penalties that only prescribes confiscation of catch. Payment of additional damages and reparation are added to the penalty for conversion of mangrove forest to fishpond. The bill also included as prohibited acts the cutting and burning of mangroves and the use of super lights in Philippines waters. It also institutionalized the incentive scheme that the Bantay Dagat and LGUs are implementing. Moreover, it also reclassified fish gears from active and passive to allowable and not allowable.
4. House Bill No. 300 seeks to add shark fining, among the prohibited acts under the Fisheries Code or RA 8550.
5. House Bill No. 444 seeks to prohibit the catching, capture and gathering of fish eggs, fish fry and fingerlings caught in the ocean, sea and lakes but not covering those hatched or propagated in legally accredited hatcheries and ponds.
6. House Bill No. 1062 or the Oil Spill Liability Act seeks to create an oil spill liability fund.
7. House Bill No. 1070 seeks to regulate shipping vessel coasting Philippine waters for the protection of shores.
8. House Bill No. 57 seeks to provide for the protection of coastal resources by establishing protected areas in every coastal municipality and city in the Philippines, and for the guidelines and mechanism for their creation thereof.

APPENDIX 7.

EAFM PRINCIPLES (SUMMARIZED FROM THE CODE OF CONDUCT FOR RESPONSIBLE FISHERIES)

I. AVOIDANCE OF OVERFISHING, OVER-EXPLOITATION; MSY; CATCH LEVEL; FLEET SIZE.

International Instruments

Food and Agriculture Organization (FAO) Code of Conduct for Responsible Fisheries (CCRF)

UNFSA or the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks

The Reykjavik Conference on Responsible Fisheries

International Plan of Action for the Management of Fishing Capacity

Cancun Declaration

Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean

United Nations Convention on the Law of the Sea (UNCLOS) Art. 61. Conservation of the living resources, Art. 62. Utilization of living resources

World Summit on Sustainable Development (WSSD)

Convention on Human Environment Principle 2. The natural resources of the earth, including the air, water, land, flora and fauna and especially representative samples of natural ecosystems, must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate.

Principle 3. The capacity of the earth to produce vital renewable resources must be maintained and, wherever practicable, restored or improved.

Principle 4. Man has a special responsibility to safeguard and wisely manage the heritage of wildlife and its habitat, which are now gravely imperiled by a combination of adverse factors. Nature conservation, including wildlife, must therefore receive importance in planning for economic development.

National Policies

R.A 8550, Sec. 7. Access to Fishery Resources-The Department shall issue such number of licenses and permits for the conduct of fishery activities subject to the limits of the MSY of the resource as determined by scientific studies or best-available evidence. Preference shall be given to resource users in the local communities adjacent or nearest to the municipal waters.

Sec. 8. Catch Ceiling Limitations-The Secretary may prescribe limitations or quota on the total quantity of fish captured, for a specified period of time and specified area based on the best available evidence. Such a catch ceiling may be imposed per species of fish whenever necessary and practicable: Provided, however, that in municipal waters and fishery management areas, and waters under the jurisdiction of special agencies, catch ceilings may be established upon the concurrence and approval or recommendation of such special agency and the concerned LGU in consultation with the FARMC for conservation or ecological purposes.

Sec. 9. Establishment of Closed Season-The Secretary may declare, through public notice in at least two (2) newspapers of general circulation or in public service announcements, whichever is applicable, at least five (5) days before the declaration, a closed season in any or all Philippine waters outside the boundary of municipal waters and in bays, for conservation and ecological purposes. The Secretary may include waters under the jurisdiction of special agencies, municipal waters and bays, and/or other areas reserved for the use of the municipal fisherfolk in the area to be covered by the closed season: Provided, however, That this shall be closed only upon the concurrence and approval or recommendation of such special agency and the concerned LGU and FARMC: Provided, further, That in municipal waters, fishery management areas and other areas reserved for the use of the municipal fisherfolk, closed season may be established by the concerned LGU in consultation with the FARMC for conservation or ecological purposes. The FARMCs may also recommend the establishment of closed seasons in municipal waters, fisheries management and other areas reserved for the use of the municipal fisher folk

Sec. 61. Importation and Exportation of Fishery Products. -

- (a) Export of Fishery products shall be regulated whenever such exportation affects domestic food security and production: Provided, That exportation of live fish shall be prohibited except those which are hatched or propagated in accredited hatcheries and ponds.
- (b) To protect and maintain the local biodiversity or ensure the sufficiency of domestic supply, spawners, breeders, eggs and fry of bangus, prawn and other endemic species, as may be determined by the Department, shall not be exported or caused to be exported by any person;
- (c) Fishery products may be imported only when the importation has been certified as necessary by the Department, in consultation with the FARMC, and all the requirements of this Code, as well as all existing rules and regulations have been complied with: Provided, That fish imports for canning/processing purposes only may be allowed without the necessary certification, but within the provisions of Section 61 (d) of this Code; and
- (d) No person, shall import and/or export fishery products of whatever size, stage or form for any purpose without securing a permit from the Department.

The Department in consultation with the FARMC shall promulgate rules and regulations on importation and exportation of fish and fishery/aquatic resources with the Governments export/import simplification procedures.

Comments

The DA BFAR has yet to determine the MSY (maximum sustainable yield) and TAC (total allowable catch).

No catch ceiling has been determined or established by BFAR.

The secretary has already declared some fishing grounds closed in the country due to over fishing.

The BFAR issued Fisheries Admin Order NO. 223, series (ss) of 2003 as amended by FAO 223-1, declaring a moratorium in the issuance of Commercial Fishing Vessel and Gear License in compliance with the IPOA on fishing capacity.

BFAR also issued several admin orders regulating fishing activities and exploitation of several species of marine species, such as:

FAO 222 ss 2003 regulating the operation of Hulbot-Hulbot or Danish purse seine.

FAO 236, ss 2010, provide for the rules and regulations on the operation of purse seine and ring net vessels using fish aggregating device (FAD).

FAO 237, ss 2009, provide for the regulations requiring the installments of juvenile and trashfish excluder device (JTED) in trawls in the Philippines.

FAO 229 ss 2003 prescribing the guidelines on the Registration of freshwater ornamental fish export facility.

FAO 210, ss 2001, provide for the rules and regulations on the exportation of fresh, chilled and frozen fish and fishery/aquatic products.

FAO 208, ss 2001, pertains to regulations on the conservation of rare, threatened and endangered fishery species.

FAO 198, ss 2000, refers to the rules and regulations on commercial fishing.

FAO 193 ss 1998 which prohibits the taking, catching, selling, purchasing, possessing, transporting and exporting of whale sharks and Manta Rays.

FAO 188, ss 1993, provide for the regulations governing the operations of commercial fishing in Philippines waters using tuna purse seine.

FAO 185 ss 1992 which prohibits the taking catching, selling, purchasing, possessing, transporting and exportation of dolphins.

FAO 173 ss 1991 as amended by FAO 173-I ss 1991 banning the exportation of Bangus fingerlings.

FAO 168, ss 1990, provide for the rules and regulations governing the gathering, culture and exportation of shelled mollusks (phylum Mollusca)

FAO 158 ss 1986 which prohibits the gathering, taking, conducting, selling, transporting or possession of Mollusks belonging to the Gemus Triton, triton charonia and cassis. BFAR needs to issue rules or guidelines to implement Section 61 of R.A 8550 on the exportation of fisheries caught in the wild.

2. ENSURING REVERSIBILITY AND REBUILDING (REHABILITATION OF FISHERIES RESOURCES AND THEIR ECOSYSTEMS, CONSERVATION)

International Instruments

UNFSA or the United Nations Conference On Straddling Fish Stocks And Highly Migratory Fish Stocks

Code of Conduct for Responsible Fisheries

UNCLOS

Agenda 21 (Chapter 15. Conservation of Biological Diversity; Chapter 17. Protection of the oceans, all kinds of seas, including enclosed and semi-enclosed seas and coastal areas on the protection, rational use and development of their living resources.)

International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries (IPOA-SEABIRDS)

International Plan of Action for Conservation and Management of Sharks (IPOA-SHARKS)

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

Convention on Biological Diversity (CBD)

WSSD

Reykjavik Conference on Responsible Fisheries

Convention on the Conservation of Migratory Species of Wild Animals

Convention Concerning the Protection of the World Cultural and Natural Heritage.

Cancun Declaration

National Policies

R.A 7611, SEP Law SEC. 7 Environmentally Critical Areas Network (ECAN)-The SEP shall establish a graded system of protection and development control over the whole of Palawan, including its tribal lands, forest, mines, agricultural areas, settlement areas, small islands mangroves, coral reefs, seagrass beds, and the surrounding sea. This shall be known as the Environmentally Critical Areas Network, hereinafter referred to as ECAN, and shall serve as the main strategy of the SEP.

The ECAN shall ensure the following:

1. Forest conservation and protection through the imposition of total commercial logging in all areas of maximum protection and in such other restricted use zones as the Palawan Council for Sustainable Development as hereinafter created may provide;
2. Protection of watersheds;
3. Preservation of biological diversity;
4. Protection of tribal people and the preservation of their culture;
5. Maintenance of maximum sustainable yield;
6. Protection of the rare and endangered species and their habitat;
7. Provision of areas for environmental and ecological research, education, and training; and
8. Provision of areas for tourist and recreation.

SEC. 10 Coastal/Marine Zone. - A different and simplified scheme of management zonation shall be applied to this component due to its geographical characteristics, critical nature, and patterns of resource use. Equitable access to the resource and management responsibility by the local community shall be the underlying management philosophy of this component.

1. Core zone. - This area shall be designated free from any human activity. This includes sanctuaries for rare and endangered species, selected coral reefs, seagrass and mangrove ecosystem reserves.
2. Multiple use zone - Aside from being development area, this zone also serves as the buffer zone where fishery, mariculture, recreation, rehabilitation of small islands and mangrove ecosystem education and research are allowed.

R.A 7586, The National Integrated Protected Areas Systems Act.

R.A 9147, Sec. 12. Introduction, Reintroduction or Restocking of Endemic or Indigenous Wildlife. - The introduction, reintroduction or restocking of endemic and indigenous wildlife shall be allowed only for population enhancement of recovery purposes subject to prior clearance from the Secretary of the authorized representative pursuant to Section 6 of this Act. Any proposed introduction shall be subject to a scientific study which shall focus on the bioecology. The proponent shall also conduct public consultations with concerned individuals or entities.

Sec. 24. Conservation Breeding or Propagation of Threatened Species → Conservation breeding or propagation of threatened species shall be encouraged in order to enhance its population in its natural habitat. It shall be done simultaneously with the rehabilitation and/or protection of the habitat where the captive-bred or propagated species shall be released, reintroduced or restocked.

Commercial breeding or propagation of threatened species may be allowed provided that the following minimum requirements are met by the applicant, to wit:

- (a) Proven effective breeding and captive management techniques of the species; and
- (b) Commitment to undertake commercial breeding in accordance with Section 17 of this Act, simultaneous with conservation breeding.

The Secretary shall prepare a list of threatened species for commercial breeding and shall regularly revise or update such list or as the need arises.

Sec. 25. Establishment of Critical Habitats. - Within two (2) years following the effectivity of this Act, The Secretary shall designate critical habitats outside protected areas under Republic Act No. 7586, 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. 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.

R.A 8550, Sec. 11. Protection of Rare, Threatened and Endangered Species. - The Department shall declare closed seasons and take conservation and rehabilitation measures for rare, threatened and endangered species, as it may determine, and shall ban the fishing and/or taking of rare, threatened and/or endangered species, including their eggs/offspring as identified by existing laws in concurrence with concerned government agencies.

Sec. 80. Fishing Areas Reserves for Exclusive Use of Government. - The Department may designate area or areas in Philippine waters beyond fifteen (15) kilometers from shoreline as fishery reservation for the exclusive use of the government or any of its political subdivisions, agencies or instrumentalities, for propagation, educational, research and scientific purposes: Provided, That in municipalities or cities, the concerned LGUs in consultation with the FARMCs may recommend to the Department that portion of the municipal waters be declared as fishery reserves for special or limited use, for educational, research, and/or special management purposes. The FARMCs may recommend to the Department portions of the municipal waters which can be declared as fisheries reserves for special or limited use for educational, research and special management purposes.

Sec. 23. Limited Entry Into Overfished Areas. - Whenever it is determined by the LGUs and the Department that a municipal water is overfished based on available data or information or in danger of being overfished, and that there is a need to regenerate the fishery resources in that water, the LGU shall prohibit or limit fishery activities in the said waters.

Sec. 81. Fish Refuge and Sanctuaries. - The Department may establish fish refuge and sanctuaries to be administered in the manner to be prescribed by the BFAR at least twenty-five percent (25%), but not more than forty percent (40%) of bays, foreshore lands, continental shelf or any fishing ground shall be set aside for the cultivation of mangroves to strengthen the habitat and the spawning grounds of fish. Within these areas not commercial fishing shall be allowed. All marine fishery reserves, fish sanctuaries and mangrove swamp reservations already declared or proclaimed by the President or legislated by the Congress of the Philippines shall be continuously administered and supervised by the concerned agency: Provide, however, That in municipal waters, the concerned LGU in consultation with the FARMCs may establish fishery refuge and sanctuaries. The FARMCs may also recommend fishery refuge and sanctuaries: Provided, further, That at least fifteen percent (15%) where applicable of the total coastal areas in the municipality shall be identified, based on the best available scientific data and in consultation with the Department, and automatically designated as fish sanctuaries by the LGUs in consultation with the concerned FARMCs.

Fisheries Admin Order No. 233 series of 2010. Sec. 22.3 For scientific researches involving conservation breeding or propagation activities and other wildlife conservation projects initiated by non-government institutions, private organizations and other entities xxx

Comments

BFAR issued administrative orders that address conservation and regulation of marine and aquatic species, such as:

FAO 233 ss 2010 providing for the conservation of aquatic wildlife.

FAO 206 ss 2008 which regulates the use of fine mesh nets, size of tuna purse seine nets and trading of small tuna.

FAO 208, ss 2001 provides for the conservation of rare, threatened, and endangered fishery species.

FAO 203, ss 2000 bans fishing by means of Muro-Ami and other like methods destructive to coral reefs and other marine habitats.

FAO 202, ss 2000 bans the exploitation and exportation of corals.

FAO 193, ss 1998 prohibits the taking, catching, selling, purchasing and possessing, transporting, and exporting of whale sharks and manta rays.

FAO 185, ss 1992 prohibits the taking or catching, selling, purchasing, possessing, transporting, and exporting of dolphins.

FAO 173-I, ss 1991, which amends sec. 1 of FAO 173, ss 1991, banning the exportation of Bangus fingerlings.

FAO 158, ss. 1986, FAO 156-I, ss 1986, prohibiting the gathering, taking, conducting, selling, transporting, or possession of Mollusks belonging to the Genus Triton, triton charonia and Cassis.

FAO 88, ss 1968, providing for the regulations governing the conservation of turtles, turtle eggs and turtle shells in the Philippines.

FAO 68, amending sec. 2 of FAO 36, prohibiting the killing, gathering, possessing and selling of Marine turtles.

FAO 36 which established a closed season period for the gathering or killing of Marine turtles, turtle eggs and turtle shells.

The DENR, DA and PCSD also issued a joint administrative order which serves as the IRR of the Wildlife act. (DENR, DA, PCSD Joint Admin Order No. 01 ss 2004)

DAO 10, ss 1998 provide for the guidelines in the establishment and management of CBFM projects in Mangrove areas.

A bill is pending before congress regarding the adoption of the IPOA regarding the conservation of sharks.

A wild life management fund was established under the Wildlife Act for the restoration of habitats destroyed by acts punishable under the same law.

Sec 97 of RA 8550, which carries a higher penalty compared to RA 9147, does not cover or punish mere possession of rare, threatened or endangered species

3. MINIMIZING FISHERIES IMPACT

International Instruments

UNCLOS

CCRF

UNFSA or the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks Cancun Declaration

CBD

International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU)

IPOA-SEABIRDS

IPOA-SHARKS

Convention on the Conservation and Management of Highly Migratory

Fish Stocks in the Western and Central Pacific Ocean

Bangkok Declaration Beyond 2000 on Aquaculture

National Policies

PD 1586, EIS law: Section 1, Policy: It is hereby declared the policy of the state to attain and maintain a rational and orderly balance between socio-economic growth and environmental protection. Section 2. Environmental Impact Statement System.

There is hereby established an environmental impact statement system founded and based on the environmental impact statement required, under Section 4 of Presidential Decree No. 1151, of all agencies and instrumentalities of the national government, including government-owned or controlled corporations, as well as private corporations, firms, and entities, for every proposed project and undertaking which significantly affects the quality of the environment.

R.A 8550, Sec. 12. Environmental Impact Statement (EIS)-All government agencies as well as private corporations, firms, and entities who intend to undertake activities or projects which will affect the quality of the environment shall be required to prepare a detailed Environmental Impact Statement (EIS) prior to undertaking such development activity. The preparation of the EIS shall form an integral part Or the entire planning process pursuant to the provisions of P.D. No. 1586 as well as its implementing rules and regulations.

Sec. 13. Environmental Compliance Certificate (ECC). - All Environmental Impact Statements (EIS) shall be submitted to the Department of Environment and Natural Resources (DENR) for review and evaluation. No person, natural or judicial, shall undertake any development project without first securing an Environmental Compliance Certificate (ECC) from the Secretary of the DENR.

Sec. 88. Fishing Through Explosives, Noxious or Poisonous Substance, and/or Electricity. -

1. It shall be unlawful for any person to catch, take or gather or cause to be caught, taken or gathered, fish or any fishery species in Philippine waters with the use of electricity, explosives, noxious or poisonous substance such as sodium cyanide in the Philippine fishery areas, which will kill, stupefy, disable or render unconscious fish or fishery species: Provided, That the Department, subject to safeguards and conditions deemed necessary and endorsement from the concerned LGUs, may allow, for research, educational or scientific purposes only, the use of electricity, poisonous or noxious substances to catch, take or gather fish or fishery species: Provided, further, That the use of poisonous or noxious substances to eradicate predators in fishponds in accordance with accepted scientific practices and without causing adverse environmental impact in neighboring waters and grounds shall not be construed as illegal fishing.

It will likewise be unlawful for any person, corporation or entity to possess, deal in, sell or in any manner dispose of, any fish or fishery species which have been illegally caught, taken or gathered.

The discovery of dynamite, other explosives and chemical compounds which contain combustible elements, or noxious or poisonous substances, or equipment or device for electro-fishing in any fishing vessel or in the possession of any fisherfolk, operator, fishing boat official or fishworker shall constitute prima facie evidence, that the same was used for fishing in violation of this Code. The discovery in any fishing vessel of fish caught or killed with the use of explosive, noxious or poisonous substances or by electricity shall constitute prima facie evidence that the fisherfolk, operator, boat official or fishworker is fishing with the use thereof.

2. Mere possession of explosive, noxious or poisonous substances or electrofishing devices for illegal fishing shall be punishable by imprisonment ranging from six (6) months to two (2) years.
3. Actual use of explosives, noxious or poisonous substances or electrofishing devices for illegal fishing shall be punishable by imprisonment ranging from five (5) years to ten (10) years without prejudice to the filing of separate criminal cases when the use of the same result to physical injury or loss of human life.
4. Dealing in, selling, or in any manner disposing of, for profit, illegally caught/gathered fisheries species shall be punished by imprisonment ranging from six (6) months to two (2) years.
5. In all cases enumerated above, the explosives, noxious or poisonous substances and/or electrical devices, as well as the fishing vessels, fishing equipment and catch shall be forfeited.

Sec. 89. Use of Fine Mesh Net. - It shall be unlawful to engage in fishing using nets with mesh smaller than that with which may be fixed by the Department: Provided, That the prohibition on the use of fine mesh net shall not apply to the gathering of fry, glass eels, elvers, tabios, and alamang and such species which by their nature are small but already mature to be identified in the implementing rules and regulations by the Department.

Violation of the above shall subject the offender to a fine from Two thousand pesos (P2,000.00) to Twenty thousand pesos (P20,000.00) or imprisonment form six (6) months to tow (2) years or both such fine and imprisonment at the discretion of the court: Provided, That the owner/operator of the commercial fishing vessel who violates this provisions shall be subjected to the same penalties provided herein: Provided, finally, That the Department is hereby empowered to impose upon the offender an administrative fine and/or cancel his permit or license or both.

Sec. 90. Use of Active Gear in the Municipal Waters and Bays and Other Fishery Management Areas. - It shall be unlawful to engage in fishing in municipal waters and in all bays as well as other fishery management areas using active fishing gears as defined in this Code.

Violators of the above prohibitions shall suffer the following penalties:

1. The boat captain and master fisherman of the vessels who participated in the violation shall suffer the penalty of imprisonment from two (2) years to six (6) years;
2. The owner/operator of the vessel shall be fined from Two thousand pesos (P2,000.00) to Twenty thousand pesos (P20,000.00) upon the discretion of the court.

Sec. 91. Ban on Coral Exploitation and Exportation. - It shall be unlawful for any person or corporation to gather, possess, sell or export ordinary precious and semi-precious corals, whether raw or in processed form, except for scientific or research purposes.

Violations of this provision shall be punished by imprisonment from six (6) months to two (2) years and a fine from Two thousand pesos (P2,000.00) to Twenty thousand pesos (P20,000.00), or both such fine and imprisonment, at the discretion of the court, and forfeiture of the subject corals, including the vessel and its proper disposition.

The confiscated corals shall either be returned to the sea or donated to schools and museums for educational or scientific purposes or disposed through other means.

Sec. 92. Ban on Muro-Ami, Other Methods and Gear Destructive to Coral Reefs and Other Marine Habitat. - It shall be unlawful for any person, natural or juridical, to fish with gear method that destroy coral reefs, seagrass beds, and other fishery marine life habitat as may be determined by the Department. "Muro-Ami" and any of its variation, and such similar gear and methods that require diving, other physical or mechanical acts to pound the coral reefs and other habitat to entrap, gather or catch fish and other fishery species are also prohibited.

xxx

It is likewise unlawful for any person or corporation to gather, sell or export white sand, silica, pebbles and other substances which make up any marine habitat.

xxx

Sec. 93. Illegal Use of Superlights. - It shall be unlawful to engage in fishing with the use of superlights in municipal waters or in violation of the rules and regulations which may be promulgated by the Department on the use of superlights outside municipal waters.

xxx

Sec. 94. Conversion of Mangroves. - It shall be unlawful for any person to convert mangroves into fishponds or for any other purposes.

Violation of the provision of this section shall be punished by imprisonment of six (6) years and one (1) day to twelve (12) years and/or a fine of Eighty thousand pesos (P80,000.00): Provided, That if the area requires rehabilitation or restoration as determined by the court, the offender should also be required to restore or compensate for the restoration of the damage.

Sec. 95. Fishing in Overfished Area and During Closed Season. - It shall be unlawful to fish in overfished area and during closed season

xxx

Sec. 96. Fishing in Fishery Reserves, Refuge and Sanctuaries. - It shall be unlawful to fish in fishery areas declared by the Department as fishery reserves, refuge and sanctuaries.

xxx

Sec. 97. Fishing or Taking of Rare, Threatened or Endangered Species. - It shall be unlawful to fish or take rare, threatened or endangered species as listed in the CITES and as determined by the Department.

xxx

Sec. 98. Capture of Sabalo and Other Breeders/Spawners. - It shall be unlawful for any person to catch, gather, capture or possess mature milkfish or "sabalo" and such other breeders or spawners of other fishery species as may be determined by the Department: Provided, That catching of sabalo and other breeders/spawners for local breeding purposes or scientific or research purposes may be allowed subject to guidelines to be promulgated by the Department.

xxx

Sec. 99. Exportation of Breeders, Spawners, Eggs or Fry. - Exportation of breeders, spawners, eggs or fry as prohibited in this Code shall be punished by imprisonment of eight (8) years, confiscation of the same or a fine equivalent to double the value of the same, and revocation of the fishing and/or export license/permit.

Sec. 101. Violation of Catch Ceilings. - It shall be unlawful for any person to fish in violation of catch ceilings as determined by the Department. Violation of the provision of this section shall be punished by imprisonment of six (6) months and one (1) day to six (6) months and one (1) day to six (6) years and/or a fine of Fifty Thousand Pesos (P50,000.00) and forfeiture of the catch, and fishing equipment used and revocation of license.

Sec. 102. Aquatic Pollution. - Aquatic pollution, as defined in this Code shall be unlawful.

xxx

Comments

The DENR issued DAO 30 ss 2003 providing for the implementing rules and regulations of the EIS law.

The DA BFAR enacted the following admin orders, which can be read as an effort to minimize the impact of fisheries:

FAO 236 ss 2010, providing for the rules and regulations on the operations of purse seine and ring net vessels using fish aggregating device (FAD).

FAO 237 ss 2009, providing for the regulations requiring the installments of Juvenile and trash fish excluder device (JTED) in trawls in the Philippines.

FAO 222 ss 2003 regulating the operations of Hulbot hulbot or Danish purse seine.

FAO 214 ss 2001 the code of practice for aquaculture.

FAO 204 ss 2000 providing for the restrictions on the use of superlights in fishing.

FAO 203 ss 2000, banning fishing by means of Muro-Ami and other like methods destructive to Coral Reefs and other Marine Habitats.

FAO 202 ss 2000, Banning the exploitation and Exportation of corals.

FAO 201 ss 2000 banning the use of active gear in municipal waters.

FAO 198 ss 2000, providing for the rules and regulations on Commercial Fishing.

FAO 188 ss 1993, providing for the regulations governing the operations of commercial fishing in Philippines waters using tuna purse seine.

FA) 168 ss 1990, providing for the rules and regulations governing the gathering, culture and exportation of shelled mollusks (phylum Mollusca)

The DENR have also issued administrative orders and issuances relating to fisheries that can be interpreted to address this principle, such as:

DAO 17, ss 2007, provides for the rules in special uses within protected areas such as sustainable ecotourism, irrigation/waterway and aquaculture.

DMC 01 ss 2006 prohibiting the titling of lands and areas suitable for fishery purposes/operations even within alienable and disposal lands.

4. CONSIDERING SPECIES INTERACTION

International Instruments

UNFSA or the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks

Cancun Declaration

CBD

Convention on the Conservation of Migratory Species of Wild Animals

UNCLOS

National Policies

None

Comments

None

5. ENSURING COMPATIBILITY

International Instruments

UNCLOS

UNFSA or the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks

CCRF

Agenda 21

IPOA–IUU

IPOA–SEABIRDS

IPOA–Fishing Capacity

Convention on the Conservation of Migratory Species of Wild Animals

Climate change Framework Convention on Climate Change

National Policies

The Philippines signed the UNFSA, adheres to CITES, the IPOA for IUU and fishing capacity. It is also a member of the CTI, adheres to Regional Plan of actions in fisheries management.

R.A 9147, Sec. 19. Designation of Management and Scientific Authorities for International Trade in Endangered Species of Wild Fauna and Flora. ▸ For the implementation of International agreement on international trade in endangered species of wild fauna and flora, the management authorities for terrestrial and aquatic resources shall be the Protected Areas and Wildlife Bureau (PAWB) of the DENR and the Bureau of Fisheries and Aquatic Resources (BFAR) of the DA, respectively. In the province of Palawan the implementation hereof is vested to the Palawan Council for Sustainable Development pursuant to Republic Act No. 7611.

R.A 8550, Sec. 97. Fishing or Taking of Rare, Threatened or Endangered Species-It shall be unlawful to fish or take rare, threatened, or endangered species as listed in the CITES and as determined by the department.

Comments

Several issuances have been made by the DA BFAR in compliance with International treaties relating to fisheries and fisheries management.

6. APPLYING THE PRECAUTIONARY APPROACH (IMPROVEMENT OF RESEARCH, TAKE MEASURES THAT ACCOUNT FOR COMPLEXITY AND DYNAMICS AND UNCERTAINTY, AND GIVE ATTENTION TO TRANSBOUNDARY IMPACT)

International Instruments

UNCLOS

UNFSA or the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks

CCRF

FAO 23

Reykjavik Conference on Responsible Fisheries Management

WSSD

IPOA–IUU

IPOA–SEABIRDS

IPOA–Fishing Capacity

National Policies

R.A 8550, Sec. 82. Creation of a National Fisheries Research and Development Institute (NFRDI)-In recognition of the important role of fisheries research in the development, management, conservation, and protection

of the country's fisheries and aquatic resources, there is hereby created a National Fisheries Research and Development Institute (NFRDI).

The institute shall form part of the National Research and Development Network of the Department of Science and Technology (DOST).

R.A 8435, SEC. 81. The National Research and Development System in Agriculture and Fisheries—The department—in coordination with the Department of Science and Technology and other appropriate agencies and research institutions—shall enhance, support, and consolidate the existing National Research and Development System in Agriculture and Fisheries within six (6) months from the approval of this act: provided that fisheries research and development shall be pursued separately, from but in close coordination with that of agriculture.

R.A 7611, SEC. 14 Environmental Research - The SEP shall provide for a system of research so that additional information for accurate planning as well as data to solve new problems in the implementation of the SEP shall be supplied. As such, the SEP's researches shall not be confined to the physical and biological features of the environment, achieved through surveys, monitoring, resource assessments and research into processes, but shall also extend to policies and socioeconomic questions.

SEC. 15 Environmental Education and Extension - The SEP shall design environmental information and education designed to gradually wean the people away from destructive practices and shall recommend practical ways as an alternative.

A.M No. 09-6-8-C, Rules of Procedure for Environmental Cases, RULE 20, PRECAUTIONARY PRINCIPLE, Section 1. Applicability. - When there is a lack of full scientific certainty in establishing a causal link between human activity and environmental effect, the court shall apply the precautionary principle in resolving the case before it. The constitutional right of the people to a balanced and healthful ecology shall be given the benefit of the doubt.

Section 2. Standards for application. - In applying the precautionary principle, the following factors, among others, may be considered: (1) threats to human life or health; (2) inequity to present or future generations; or (3) prejudice to the environment without legal consideration of the environmental rights of those affected.

Comments

None

7. IMPROVING HUMAN WELL-BEING AND EQUITY

International Instruments

WSSD (Article II)

CCRF

FAO 23

Reykjavik Conference on Responsible Fisheries management

Bangkok Declaration Beyond 2000 on Aquaculture

National Policies

R.A No. 7611, SEC. 4 Strategic Environmental Plan-A comprehensive framework for the sustainable development of Palawan compatible with protecting and enhancing the natural resources and endangered environment of the province is hereby adopted. Such framework shall be known as the Strategic Environmental Plan for Palawan, hereinafter referred to as SEP, and shall serve to guide the local government of Palawan and the government agencies concerned in the formulation and implementation of plans, programs, and projects affecting said province.

R.A 8371, Sec. 7. Rights to Ancestral Domains-The rights of ownership and possession of ICCs/IPs to their ancestral domains shall be recognized and protected. Such rights shall include:

- (a) Rights of Ownership-The right to claim ownership over lands, bodies of water traditionally and actually occupied by ICCs/IPs, sacred places, traditional hunting and fishing grounds, and all improvements made by them at any time within the domains;
- (b) Right to Develop Lands and Natural Resources-Subject to Section 56 hereof, right to develop, control, and use lands and territories traditionally occupied, owned, or used; to manage and conserve natural resources within the territories and uphold the responsibilities for future generations; to benefit and share the profits from allocation and utilization of the natural resources found therein; the right to negotiate the terms and conditions for the exploration of natural resources in the areas for the purpose of ensuring ecological, environmental protection and the conservation measures, pursuant to national and customary laws; the right to an informed and intelligent participation in the formulation and implementation of any project, government or private, that will affect or impact upon the ancestral domains and to receive just and fair compensation for any damages which they sustain as a result of the project; and the right to effective measures by the government to prevent any interfere with, alienation and encroachment upon these rights;
- (c) Right to Stay in the Territories- The right to stay in the territory and not be removed there from. No ICCs/IPs will be relocated without their free and prior informed consent, nor through any means other than eminent domain. Where relocation is considered necessary as an exceptional measure, such relocation shall take place only with the free and prior informed consent of the ICCs/IPs concerned and whenever possible, they shall be guaranteed the right to return to their ancestral domains, as soon as the grounds for relocation cease to exist. When such return is not possible, as determined by agreement or through appropriate procedures, ICCs/IPs shall be provided in all possible cases with lands of quality and legal status at least equal to that of the land previously occupied by them, suitable to provide for their present needs and future development. Persons thus relocated shall likewise be fully compensated for any resulting loss or injury;
- (d) Right in Case of Displacement.- In case displacement occurs as a result of natural catastrophes, the State shall endeavor to resettle the displaced ICCs/IPs in suitable areas where they can have temporary life support system: Provided, That the displaced ICCs/IPs shall have the right to return to their abandoned lands until such time that the normalcy and safety of such lands shall be determined: Provided, further, That should their ancestral domain cease to exist and normalcy and safety of the previous settlements are not possible, displaced ICCs/IPs shall enjoy security of tenure over lands to which they have been resettled: Provided, furthermore, That basic services and livelihood shall be provided to them to ensure that their needs are adequately addressed:
- (e) Right to Regulate Entry of Migrants.- Right to regulate the entry of migrant settlers and organizations into the domains;
- (f) Right to Safe and Clean Air and Water.- For this purpose, the ICCs/IPs shall have access to integrated systems for the management of their inland waters and air space;

- (g) Right to Claim Parts of Reservations.- The right to claim parts of the ancestral domains which have been reserved for various purposes, except those reserved and intended for common and public welfare and service; and
- (h) Right to Resolve Conflict.- Right to resolve land conflicts in accordance with customary laws of the area where the land is located, and only in default thereof shall the complaints be submitted to amicable settlement and to the Courts of Justice whenever necessary.

Sec. 8. Rights to Ancestral Lands.- The right of ownership and possession of the ICCs/IPs, to their ancestral lands shall be recognized and protected.

- (a) Right to transfer land/property.- Such right shall include the right to transfer land or property rights to/ among members of the same ICCs/IPs, subject to customary laws and traditions of the community concerned.
- (b) Right to Redemption.- In cases where it is shown that the transfer of land/property rights by virtue of any agreement or devise, to a non-member of the concerned ICCs/IPs is tainted by the vitiated consent of the ICCs/IPs, or is transferred for an unconscionable consideration or price, the transferor ICC/IP shall have the right to redeem the same within a period not exceeding fifteen (15) years from the date of transfer.

Sec. 9. Responsibilities of ICCs/IPs to their Ancestral Domains.- ICCs/IPs occupying a duly certified ancestral domain shall have the following responsibilities:

- (a) Maintain Ecological Balance- To preserve, restore, and maintain a balanced ecology in the ancestral domain by protecting the flora and fauna, watershed areas, and other reserves;
- (b) Restore Denuded Areas- To actively initiate, undertake and participate in the reforestation of denuded areas and other development programs and projects subject to just and reasonable remuneration; and
- (c) Observe Laws- To observe and comply with the provisions of this Act and the rules and regulations for its effective implementation.

R.A 8550, Sec. 17. Grant of fishing privileges in municipal waters. - The duly registered fisherfolk organization/ cooperatives shall have preferences in the grant of fishery rights by the Municipal/City Council pursuant to Section 149 of the Local Government Code: Provided, that the in the area where there are special agencies or offices vested with jurisdiction over municipal water by virtue of special law creating these agencies such as, but not limited to the Laguna Lake Development Authority and the Palawan Council for Sustainable Development, said offices and agencies shall continue to grant permits for proper management and implementation of the aforementioned structures.

Sec. 18. Users of Municipal Waters. - All fishery related activities in municipal waters, as defined in this Code, shall be utilized by municipal fisherfolk and their cooperatives/organizations who are listed as such in the registry of municipal fisherfolk.

The municipal or city government, however, may, through its local chief executive and acting pursuant to an appropriate ordinance, authorize or permit shall and medium commercial fishing vessels to operate within the then point one (10.1) to fifteen (15) kilometer area from the shoreline in municipal waters as defined herein, provided, that all the following are met:

- (a) no commercial fishing in municipal waters with depth less than seven (7) fathoms as certified by the appropriate agency;
- (b) fishing activities utilizing methods and gears that are determined to be consistent with national polices set by the Department.
- (c) prior consultation, through public hearing, with the M/CFARMC has been conducted; and

(d) the applicant vessel as well as the ship owner, employer, captain and crew have been certified by the appropriate agency as not having violated this Code, environmental laws and related laws.

In no case shall the authorization or permit mentioned above be granted for fishing in bays as determined by the Department to be in an environmentally critical condition and during closed season as provided for in Section 9 of this Code.

Sec. 19. Registry of Municipal Fisherfolk. - The LGU shall maintain a registry of municipal fisherfolk, who are fishing or may desire to fish in municipal waters for the purpose of determining priorities among them, of limiting entry into the municipal waters, and of monitoring fishing activities and/or other related purposes: Provided, That the FARMC shall submit to the LGU the list of priorities for its consideration.

Such list or registry shall be updated annually or as may be necessary, and shall be posted in barangay halls or other strategic locations where it shall be open to public inspection, for the purpose of validating the correctness and completeness of the list. The LGU, in consultation with the FARMCs, shall formulate the necessary mechanisms for inclusion or exclusion procedures that shall be most beneficial to the resident municipal fisherfolk. The FARMCs may likewise recommend such mechanisms.

The LGUs shall also maintain a registry of municipal fishing vessels by type of gear and other boat particulars with the assistance of the FARMC.

Sec. 20. Fisherfolk Organizations and/or Cooperatives. - Fisherfolk organizations/ cooperatives whose members are listed in the registry of municipal fisherfolk, may be granted use of demarcated fishery areas to engage in fish capture, mariculture and/or fish farming; Provided, however, That an organization/cooperative member whose household is already in possession of a fishery right other than for fish capture cannot enjoy the fishing rights granted to the organization or cooperative.

Sec. 21. Priority of Resident Municipal Fisherfolk. - Resident municipal fisherfolk of the municipality concerned and their organizations/cooperatives shall have priority to exploit municipal and demarcated fishery areas of the said municipality

Comments

None

8. BROADENING STAKEHOLDERS PARTICIPATION AND PROMOTING SECTORAL INTEGRATION

International Instruments

CCRF

FAO 23

Reykjavik Conference on Responsible Fisheries management

WSSD

Bangkok Declaration Beyond 2000 on Aquaculture

National Policies

R.A 7610

R.A 8550, Sec. 68. Development of Fisheries and Aquatic Resources in Municipal Waters and Bays-Fisherfolk and their organizations residing within the geographical jurisdiction of the barangays, municipalities, or cities with the concerned LGUs shall develop the fishery/aquatic resources in municipal waters and bays.

Sec. 69. Creation of Fisheries and Aquatic Resources Management Councils (FARMCs)-FARMCs shall be established in the national level and in all municipalities/cities abutting municipal waters as defined by this code. The FARMCs shall be formed by fisherfolk organizations/cooperatives and NGOs in the locality and be assisted by the LGUs and other government entities. Before organizing FARMCs, the LGUs, NGOs, fisherfolk, and other concerned POs shall undergo consultation and orientation on the formation of FARMCs.

Sec. 70. Creation and Composition of the National Fisheries and Aquatic Resources Management Council (NFARMC)-There is hereby created a National Fisheries and Aquatic Resources Management Council hereinafter referred to as NFARMC as an advisory/recommendatory body to the Department.

Sec. 76. The Integrated Fisheries and Aquatic Resources Management Councils (FARMCs). - The FARMCs shall be created in bays, gulfs, lakes and rivers and dams bounded by two (2) or more municipalities/cities.

Comments

FAO 196 was issued by the DA BFAR providing for the guidelines in the creation of FARMCs

9. MAINTAINING ECOSYSTEM INTEGRITY

International Instruments

World Commission on Economic Development (WCED)

United Nations Conference on Environment and Development (UNCED)

CBD

FAO 23

CCRF

UNCLOS

United Nations Millennium Development Goals (UNMD)

Reykjavik Conference on Responsible Fisheries Management

UNFSA or the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks

National Policies

P.D NO. 979 as amended or the Marine Pollution Act.

P.D 1067, the Water Code of the Philippines. Sec. 91, (B) [3] unauthorized obstruction of a river, or waterway, or occupancy of a riverbank or seashore without permission. [6] Dumping mine tailings and sediments into rivers of waterways without permission.

R.A 6969, Toxic Substances and Hazardous and Nuclear Waste Control Act, Sec. 13. d. Cause, aid, or facilitate, directly or indirectly, in the storage, importation, or bringing into Philippine territory, including its maritime economic zones, even in transit, either by means of land, air, or sea transportation or otherwise keeping in storage any amount of hazardous and nuclear wastes in any part of the Philippines.

R.A 7586, The National Integrated Protected Areas Systems Act. SEC. 20. Prohibited Acts—Except as may be allowed by the nature of their categories and pursuant to rules and regulations governing the same, the following acts are prohibited within protected areas:

Hunting, destroying, disturbing, or mere possession of any plants or animals or products derived there from without a permit from the Management Board;

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 dam condition;

Squatting, mineral locating, or otherwise occupying any land;

Constructing and maintaining any kind of structure, fence or enclosures, conducting any business 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.

RA 8550, Fisheries Code of the Philippines.

RA 9003, Solid Waste Management Act

R. A 9147, Wildlife Conservation and Protection Act.

RA 9275, Philippine Clean Water Act

R.A 9483, Oil Pollution Compensation Act

R.A 7611, Strategic Environmental Plan for Palawan.

Comments

The DENR and DA have issued several issuances for the implementation of the national laws for the protection of the marine environment including coastal areas.

Among those issued were FAO 17 ss 2000 providing for the rules and regulations governing the Lease of Public Lands for Fishpond Development.

DMC 1 ss 2006 provides for the prohibitions on the titling of lands and areas suitable for fishery purposes even within alienable and disposable land.

The absence of operational definition of marine habitat under RA 8550 is used as an excuse in order to cover up violation of Section 92. (Ban on Muro-Ami, Other Methods, and Gear Destructive to Coral Reefs and Other Marine Habitat including ban on gathering, selling, or exporting white sand, silica, pebbles, and other substances which make up any marine habitat)

The province of Palawan and other areas in the country were declared as mangrove reserves through Executive order No. 2152

10. USE OF INCENTIVES

International Instruments

FAO 23

CCRF

Reykjavik Conference on Responsible Fisheries Management

National Policies

R.A 9275, Philippine Clean Water Act Secs.25. Rewards, monetary or otherwise, shall be provided to individuals, private organizations, and entities, including civil societies that have undertaken outstanding and innovative projects and technologies, processes, and techniques or activities in water quality management.

R.A 8550, Sec. 34. Incentives for Municipal and Small-Scale Commercial Fisherfolk-Municipal and small-scale commercial fisherfolk shall be granted incentives which shall include, but are not limited to, the following:

- (a) at least ten percent (10 percent) of the credit and the guaranteed funds of government-financing institutions shall be made available for post-harvest and marketing projects for the purpose of enhancing our fisherfolks' competitiveness by reducing post-harvest losses. Qualified projects shall include but shall not be limited to ice plants, cold storage, canning, warehouse, transport, and other related infrastructure projects and facilities; and
- (b) the Department shall undertake the following programs:
 1. a capability-building program for targeted parties shall be developed by the Department to promote greater bankability and credit worthiness of municipal and small-scale commercial fisherfolk. Such program shall include organizing activities, technology transfer, and skills training related to commercial fishing as well as credit management. Groups and cooperatives organized under the program shall have priority access over credit and guarantee funds established under this Code;
 2. and an information campaign shall be conducted to promote the capability and credit programs. The campaign shall ensure greater information dissemination and accessibility to targeted fisherfolk.

Sec. 35. Incentives for Commercial Fishers to Fish Farther Into the Exclusive Economic Zone (EEZ). - In order to encourage fishing vessel operators to fish farther in the EEZ and beyond, new incentives for improvement of fishing vessels and acquisition of fishing equipment shall be granted in addition to incentive already available from the Board of Investments (BOI). Such incentives shall be granted subject to exhaustive evaluation of resource and exploitation conditions in the specified areas of fishing operations.

RA 8435, Agriculture and Fisheries Modernization Act

Comments

The PCSD and the DENR both have issuances regarding the use of incentives in fishing.

II. ALLOCATING USER RIGHTS

International Instruments

FAO 23

CCRF

UNFSA

Reykjavik Conference on Responsible Fisheries Management

National Policies

R.A 8550, Sec. 6. Fees and Other Fishery Charges-The rentals for fishpond areas covered by the Fishpond Lease Agreement (FLA) and license fees for Commercial Fishing Boat Licenses (CFBL) shall be set at levels that reflect resource rent accruing from the utilization of resources and shall be determined by the department:

- Provided that the department shall also prescribe fees and other fishery charges and issue the corresponding license or permit for fishing; gear, fishing accessories, and other fishery activities beyond the municipal waters.
- Further provided that the license fees of fishery activity in municipal waters shall be determined by the Local Government Units (LGUs) in consultation with the FARMCs. The FARMCs may also recommend the appropriate license fees that will be imposed.

Sec. 26. Commercial Fishing Vessel License and Other Licenses-No person shall operate a commercial fishing vessel; pearl fishing vessel; or fishing vessel for scientific, research, or educational purposes, or engage in any fishery activity, or seek employment as a fishworker or pearl diver without first securing a license from the Department, the period of which shall be prescribed by the Department: Provided, That no such license shall be required of a fishing vessel engaged in scientific, research or educational purposes within Philippine waters pursuant to an international agreement of which the Philippines is a signatory and which agreement defines the status, privileges and obligations of said vessel and its crew and the non-Filipino officials, of the international agency under which said vessel operates; Provided, further, that members of the crew of a fishing vessel used for commercial fishing except the duly licensed and/or authorized patrons, marine engineers, radio operators and cooks shall be considered as fisherfolk: Provided, furthermore, That all skippers/master fishers shall be required to undertake an orientation training on detection of fish caught by illegal means before they can be issued their fishworker licenses: Provided, finally, That the large commercial fishing vessel license herein authorized to be granted shall allow the licensee to operate only in Philippine waters seven (7) or more fathoms deep, the depth to be certified by the NAMRIA, and subject to the conditions that may be stated therein and the rules and regulations that may be promulgated by the Department.

Sec. 60. Registration and Licensing of all Post-Harvest Facilities. - All post-harvest facilities such as fish processing plants, ice plants, and cold storages, fish ports/landings and other fishery business establishments must register with and be licensed by the LGUs which shall prescribe minimum standards for such facilities in consultation with the Department

Comments

None

APPENDIX 8.

TABLE 2: MATRIX OF EAFM ISSUES

Issue	Specific Issues	Areas of Convergence	Suggestions/Recommendations
<p>Policy Conflicts and Gaps; Conflicting Management Orientation and Thrusts</p>	<p>a) AFMA prioritizes agricultural productivity and industrialization, while the Fisheries Code gives a premium to conservation.</p> <p>b) NIPAS has conflict with the Fisheries Code as regards to municipal water income of municipalities within protected areas.</p> <p>c) DA-BFAR's production-oriented fisheries management regime.</p>	<p>a.1. Food security</p> <p>a.2. CRM and fisheries-management planning</p> <p>a.3. Comprehensive Land and Water Use Plan of LGU</p> <p>a.4. Protected Area Management Plans, including MPA or Sanctuary Management Board Plans</p>	<p>1. AFMA vs. Fisheries Code</p> <p>a) Utilization perspective in AFMA must be harmonized with conservation and ICM objectives of the Fisheries Code.</p> <p>b) Food-security strategies and mechanisms must be harmonized.</p> <p>2. LGUs will need to revisit their CLWUPs to implement the National Climate Change Action Plan (NCCAP) provided under the Climate Change Act, as well as the National Disaster Risk Reduction and Management Act. This is an opportunity to localize the harmonization of food security; conservation; and ICM objectives provided in AFMA, Fisheries Code, and other laws.</p> <p>3. PAMBs, MPA Boards, or Sanctuary Management Boards need to revisit their plans and strategies and apply EAFM concepts and principles.</p> <p>4. National Convergence Initiative of DENR, DA, and DAR can serve as an opportunity to address these conflicts, especially because CRM/ICM is a key concern. This group must take cognizance of the new Philippine Development Plan (2011 to 2016), which considers EA management and sets forth priorities for the next five years.</p>

Issue	Specific Issues	Areas of Convergence	Suggestions/Recommendations
Jurisdictional Issue (Fragmentation and Overlaps)	<p>a) NIPAS and LGC have jurisdictional overlaps with respect to marine protected areas.</p> <p>b) DENR and DA-BFAR have overlaps in various areas provided under the Fisheries Code (strategic planning for ICM, setting of standards, etc.).</p> <p>c) DOE, DENR, and DA-BFAR have no integrated approach on managing and monitoring energy exploration activities in municipal waters and offshore areas.</p>	<p>Protected Area Management Planning</p> <p>CRM Action Plan must address overlaps.</p> <p>Climate Change Commission is mandated to mobilize all agencies in the preparation and implementation of the National Climate Change Action Plan (NCCAP).</p> <p>Current Cabinet Cluster on Climate Change and Environmental Protection (led by the DENR, with CCC as secretariat) can address some of these jurisdictional issues.</p>	<p>1. DENR, DA, and DAR Convergence Initiative can serve as an opportunity to address these conflicts, especially because CRM/ICM is a key concern.</p> <p>2. Develop an advocacy agenda on both national and local levels to engage with legislators in the pursuit of amendments to the Fisheries Code, as there are pending bills in Congress on CRM and fisheries. Ideally, a multisectoral advocacy group must be established. Champions to carry forward the advocacy agenda must be identified and engaged with.</p>
Institutional and Governance Issues	<p>Administrative mechanisms are not integrated to enable EAFM to thrive (local political boundaries and agency mandates are separate).</p> <p>Insufficient technical and financial resources to implement EAFM</p> <p>Weak implementation of laws and policies</p> <p>Corruption</p>	<p>Coordination and partnerships on the national and local level</p> <p>Budget-planning sessions on the national and local level</p> <p>Multisectoral enforcement bodies can be strengthened or organized, whatever is appropriate.</p> <p>Capacity building and educative activities provided under the Education Act can be pursued.</p> <p>Monitoring of enforcement efforts must be linked up with anti-corruption efforts of the current administration.</p>	<p>National Convergence Initiative cluster of DENR, DA, and DAR, together with DILG and other concerned administrative agencies, including enforcement agencies, must:</p> <p>(i) Enhance coordination and integrate CRM, PA management, and fisheries management efforts;</p> <p>(ii) Revisit previous enforcement strategies and define more effective plans;</p> <p>(iii) Identify strategies and plans on how to address technical and financial deficiencies and enhance existing initiatives towards implementing EAFM.</p>



**CORAL TRIANGLE
INITIATIVE**

ON CORAL REEFS, FISHERIES AND FOOD SECURITY

PHILIPPINES