

ESTABLISHMENT MARINE RESERVES AND FISH SANCTUARIES IN THE PHILIPPINES

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■ INTRODUCTION

The Philippines being an archipelago, consists of 7,107 islands, a coastline of 17,460 km, a coral reef area of 27,000 sq km and a shelf area of (Depth 200 m) of 184,600 sq km. This vast expanse of marine resource employs 806, 929 persons 374,408 of which comes from the Municipal, 357,984 from the commercial and 74,537 persons from the aquaculture sector (Philippine Fisheries Profile, 2000). However, these vast marine resources are under severe stress from the pooled impacts of human overexploitation, physical interruption, pollution, sedimentation and general neglect. The destruction and decline of coral reefs, sea grasses, mangrove and estuarine quality of the once tropical marine and coastal biodiversity center of the world is a disturbing dilemma which needs an immediate and effective solution.

To date, there are over 400 marine reserves and fish sanctuaries in the Philippines comprising a total area of 8,313.90 ha. On the other hand, only 37 areas have been well managed and protected.

Problems/issues in the Establishment of Marine Reserves and Fish Sanctuaries in the Philippines:

1. Lack of willingness, support and cooperation from the fishing communities/stakeholders/fisherfolk
 - Improved fish-catches overtime are difficult to appreciate when benefits are long term and not easily seen.
 - Inadequate involvement of the community
 - Lack of Educational Campaign

2. Lack of Financial and Technical Capability

- Delineation of Marine Reserves and Fish Sanctuaries
- Surveys and Assessment

3. Traditional Rivalry or Territoriality

- Jurisdiction of entities (i.e. academe, NGOs) over marine areas which are traditionally open-access

- Socio-political

4. Involvement of other Government Agencies

- DND, PNP, DILG, DENR, BFAR-RFOs

“The effectiveness of a marine reserve is closely tied to the traditional resource use patterns of the people who live within or surrounding the sites. Thus, in planning for a marine reserve, ecological knowledge of species and their habitat is no more important than a complete perspective on humans in their local environment, both in the traditional and modern senses” (CRM RL-E, BFAR-RFO-VII).

■ SITE SELECTION

Section 81 of RA 8550 otherwise known as “The Philippine Fisheries Code of 1998”

Social Criteria

1. Sites should be identified/recommended by the community/FARMC/LGU and validated/assessed by the DA-BFAR Office
2. Should be accessible and manageable to the community

3. An active peoples organization

Ecological Criteria

1. Preferably the proposed site has mangrove stands, sea grass beds, or corals of no less than (20%) live coral cover and drop off slope of 22 deg
2. Away from river banks, ports, creeks, shipyard, landing area of boats of no less than two (2) kilometers
3. Should be away from fish corrals and other fixed structures
4. Presence of threatened or endangered species in the proposed site
5. Site should be diversified
6. Good water quality
7. Depth should be from zero to no more than 200 m

Economic Criteria

1. Should be outside the duly designated navigational lanes and not a landing or a docking area
2. Abutting or adjacent area should not be classified as an industrial zone

■ **PROCEDURES**

1. Site selection and baseline resource assessment
2. Mapping and charting of the proposed site
3. Presentation of the validation and assessment of the proposed area to the community and multi-sectoral group and consultation, feedbacking, and dialogue thereof together with concerned agencies (DENR, DILG and DND)
4. Drafting of municipal ordinance by LGUs in consultation with the community and FARMCs and other sectors
5. Organization/strengthening of technical working group
6. Organization/strengthening of management/monitoring team group
7. Implementation, Enforcement, Monitoring and Adjustment.

■ **COST ESTIMATES (10 hectares Fish Sanctuary)**

1. Establishment

• Baseline Assessment	8,000.00
• Marker Buoys	37,960.00
• Billboards	6,100.00
• Post	22,800.00
TOTAL	74,860.00

2. Management and Protection

• Equipment	158,500.00
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(Fiberglass boat, SCUBA Equipment, GPS, etc)

3. Structure

• Watch Tower/Guardhouse (Light materials)	27,430.00
• Mooring Buoys	5,060.00
• Sea Borne Patrol	53,500.00
TOTAL	61,303.00

4. Reef Check Training

	32,500.00
TOTAL	352,150.00
Contingency (10%)	35,215.00
GRAND TOTAL	387,365.00

■ **MANAGEMENT**

Regulatory Technique

1. Passage of a municipal ordinance, FAO, Orders or any legal instrument declaring the area as Fish Sanctuary
2. Deputation of Fish Wardens
3. Regular Seaborne patrol to avoid encroachment

Non-Regulatory Technique

1. Continuing information education to the community
2. Cross visitation to areas where the implementation of the project is successful
3. Regular monitoring and assessment of the fish sanctuary
4. Organization of the Technical Working Group, management committee and monitoring team
5. Adoption of a management plan
6. Regular meeting of the management committee regarding the problems encountered in the implementation for adjustment of plan and policy.