Mainstreaming CRM in Local Governance: CRMP Experience

CRMP is a technical assistance project of the Department of Environment and Natural Resources, funded by the United States Agency for International Development, and managed by Tetra Tech EM Inc.
Outline of the Presentation

I. Overview of the Philippine Coastal Zone

II. Local CRM adoption and implementation
   1. Promoting CRM as a basic service of LGUs
   2. Benchmarking LGU performance on CRM

III. Integration of shoreline and coastal tourism in CRM
   1. Foreshore management initiatives of Dalaguete, Cebu
   2. CRM showcase tour and learning destinations

IV. Conclusions
I. Overview of the Philippine Coastal Zone
The Philippine coastal zone: An endangered environment
Philippine coastal resources at a glance

- 832 municipalities out of 1,541 or 54% are coastal
- Almost all major cities and provinces are coastal
- 62% of the population live in the coastal zone
- Destruction of fishery habitats (30% mangroves left compared to 1918; less than 5% of coral reefs in excellent condition)
- Overfishing (MSY reached in 1988; 10% fishstocks compared to 1940)
- Fish provide 50% of animal protein consumed
- Deteriorating water quality
Popular and emerging coastal tourism sites in the Philippines
The Coastal Resource Management Project

Mission:
To catalyze coastal resource management to a threshold that will expand nationwide and be sustainable beyond the life of the project

Strategic objectives:
- 3,000 km of shoreline with improved management of coastal resources by the end of 2002.
- CRM Institutionalization by 2004

Two-track approach:
1) Establish coastal resource management on national and local agendas
2) Build the institutional competence of local government to deliver coastal resource management as a basic service
Key issues addressed by CRMP

- Open access to and illegal use of coastal resources resulting in overexploitation of fish stocks and degradation of coastal habitats
- Low awareness and capacity of local government units to implement CRM as a basic service
- Lack of harmonized and integrated national policy framework guiding local implementation of CRM
- Change in mind set on coastal resource use
II. Local CRM adoption and implementation

1. Promoting CRM as a basic service of LGUs
2. Benchmarking LGU performance on CRM
Evolving mechanisms for CRM

1950’s to 1960’s
- Coastal resource development promoted by national government
- Fishers exploit coastal resources in open access regime
- Open access regime
- Demand does not surpass supply

1970’s to 1980’s
- Regulation of coastal resources instituted by national government
- Community-based resource management models developed

1990’s
- National legal and policy framework provides for convergence of national and local coastal management approaches
- Community-based resource management institutionalized as essential element of coastal management approaches
- Coastal management devolved to local government as a basic service
- Co-Management of Coastal Resources
LGU mandate for CRM

- Planning
- Protection
- Regulatory
- Enforcement
- Legislation
- Intergovernmental relations
- Relations with POs and NGOs
- Extension and Technical Assistance
CRM – first and foremost is a process of governance

- Involves both land and sea-based resources
- Involves human behavior in addition to the biophysical environment
- Main ecosystems involved: seagrass, mangrove, coral reef, estuaries, beaches
Establishing CRM as a basic service of local government

LGU Leadership Can Make the Difference!
Spatial coverage of a municipal CRM plan

- Comprehensive municipal development plan
- Comprehensive land use plan
- Municipal CRM plan
- Coastal zone: 1 km
- Municipal waters: 15 km
The coastal management planning process adapted for Philippine local government

**Phase 1:** Issue identification and baseline assessment

**Phase 2:** CRM plan preparation and adoption

**Phase 3:** Action plan and project implementation

**Phase 4:** Monitoring and evaluation

**Phase 5:** Multisectoral and inter-LGU participation and resource sharing

- Information management, education, and outreach
- Local legislation
- Coastal law enforcement
- Regulation
- Revenue generation
- Annual program preparation and budgeting
- External revenue sources
- National policy and legal framework
CRM as a basic service of local government

Monitoring and Evaluation
- Biophysical assessments
- Socioeconomic assessments
- Institutional assessments
- Annual CRM plan review/revision

Coastal Environmental Profiling
- Existing information and data compiled
- Participatory coastal resource assessments completed
- Scientific biophysical baseline assessments completed
- Coastal environment profile completed

Information Management
- Information management system established and maintained
- Municipal coastal database updated
- Annual CRM status reports and maps produced
- CRM Resource center and “Hotline” established

Coastal Resource Management Planning
- MFARMC formed and active
- Multi-year CRM plan prepared and adopted
- Policy and legal instruments enacted
- Water and land use zoning maps integrated
- Municipal waters delineated

Implementation and Enforcement
- Marine sanctuaries functional
- Environment-friendly enterprises established
- Mangroves rehabilitated and managed under CBFMAs
- Coastal law enforcement units operational
- CRM ordinances enforced

Revenue generation
- Local fees, fines, taxes from municipal water use collected

Annual CRM Budget Allocation
- Personnel
- Capital Outlay
- Maintenance
- Special Projects
- Training/Information Education/Communication

Multisectoral and Inter-LGU Collaboration
- Cost sharing
- Enforcement
- Training
- Watershed Management Planning
- Resource Assessments
- IEC
CRM benchmarks for LGUs

Basic Requirements
✓ 1. Multi-year CRM Plan
✓ 2. Coastal resource assessment
✓ 3. CRM-related organizations
✓ 4. Annual CRM programming and budgeting
✓ 5. Shoreline/foreshore management
✓ 6. Best CRM practices being implemented:
   a. Local legislation
   b. Municipal water delineation
   c. Coastal zoning
   d. Fisheries management
   e. Coastal law enforcement
   f. Marine protected areas
   g. Mangrove management
   h. Solid waste management
   i. Upland/watershed management
   j. Coastal environment-friendly enterprise development
   k. Revenue generation
   l. Multi-institutional collaboration for CRM
# CRM benchmark system

<table>
<thead>
<tr>
<th>Level 1 - Beginning CRM</th>
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<tbody>
<tr>
<td><strong>Acceptance of CRM as a basic service of municipal/city government with planning and field interventions initiated</strong> (1 to 3 years)</td>
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<tr>
<td>✓ Multi-year CRM drafted</td>
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<tr>
<td>✓ Baseline assessment conducted</td>
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<tr>
<td>✓ CRM-related organizations formed and active</td>
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<tr>
<td>✓ Annual budget allocated for CRM</td>
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<tr>
<td>✓ Shoreline/foreshore management measures planned and initiated</td>
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<tr>
<td>✓ At least 2 CRM best practices planned and initiated</td>
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<th>Level 2 - Intermediate CRM</th>
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<tr>
<td><strong>Implementation of CRM plans underway with effective integration to local governance</strong> (2 to 5 years)</td>
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<th>Level 3 - Advanced CRM</th>
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<tr>
<td><strong>Sustained long-term implementation of CRM with monitoring, measured results, and positive returns</strong> (5 years or more)</td>
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Illustrative zoning and resource use plan for the coastal area and municipal waters (not to scale)

Source: Huttche et al., 2002
Kilometers of shoreline where improved management of coastal resources is being implemented

- **Total areas initiated and targeted for start-up (learning plus expansion areas)**
- **Learning and expansion areas targeted for "completion"**
- **Learning and expansion areas "completed"**
  - Municipalities and Cities (achieving CRM indicators)
Number of LGUs implementing CRM Best Practices

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of LGUs</th>
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<tbody>
<tr>
<td>1996</td>
<td>0</td>
</tr>
<tr>
<td>1997</td>
<td>0</td>
</tr>
<tr>
<td>1998</td>
<td>2</td>
</tr>
<tr>
<td>1999</td>
<td>32</td>
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<tr>
<td>2000</td>
<td>76</td>
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<tr>
<td>2001</td>
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</tr>
<tr>
<td>2002</td>
<td>101</td>
</tr>
<tr>
<td>2003</td>
<td>113</td>
</tr>
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<td></td>
<td>110</td>
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III. Integration of shoreline and coastal tourism in CRM

1. Foreshore management initiatives of Dalaguete, Cebu

2. CRM showcase tour and learning destinations
Integration of shoreline and coastal tourism in CRM through LAC planning system

Limits of acceptable change have not been considered in many shoreline areas

Source: Stanley et al. 1985
Coastal shoreline setback required by law in the Philippines and zones

Source: DENR et al. 2001
Power & functions

DENR:

To exercise exclusive jurisdiction of the management & disposition of all lands of public domain and shall continue to be the sole agency responsible for classification, sub-classification, surveying & titling of lands in consultation with appropriate agencies.

(Executive Order 192, June 10, 1987)

Director of Lands:

Shall have direct executive control of the survey, classification, lease, sale or any other form of concession or disposition and management of the lands of the public domain...

(The Public Land Act, CA 141, as amended, November 7, 1936)
## Regulatory bodies and their mandates

<table>
<thead>
<tr>
<th>Agencies</th>
<th>Mandate</th>
<th>Legal Basis</th>
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<tbody>
<tr>
<td>Department of Environment and Natural Resource (DENR)</td>
<td>Survey and management of alienable and disposable public land, issuances of lease and permits &amp; over matters of forestry, mining and environmental concerns</td>
<td>CA 141</td>
</tr>
<tr>
<td>Bureau of Fisheries and Aquatic Resources</td>
<td>Designation of foreshore lands as reservations for fish sanctuaries and as mangrove cultivation areas</td>
<td>RA 8550</td>
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<tr>
<td>Department of Public Works and Highways (DPWH)</td>
<td>Cases involving construction and development along foreshore areas</td>
<td>CA 141 sec 66</td>
</tr>
<tr>
<td>Philippine Port Authority (PPA)</td>
<td>Construction of pier / port</td>
<td>PD 857</td>
</tr>
<tr>
<td>Philippine Estate Authority (PEA)</td>
<td>Activities pertaining to reclamation</td>
<td>EO 525</td>
</tr>
<tr>
<td>Philippine Tourism Authority (PTA)</td>
<td>Development of an area as a tourism zone and marine reserves</td>
<td>LGC 81</td>
</tr>
<tr>
<td>Local Government Units</td>
<td>Construction and building activities covered by ordinance</td>
<td>LGC 51, RA 7161</td>
</tr>
<tr>
<td>Housing and Land Use Regulatory Board</td>
<td>Approves and exercises supervisory authority over land use plans and zoning ordinances of LGUs</td>
<td>RA 7161</td>
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</tbody>
</table>
Setback along a beach front from edge of vegetation as stipulated by DOT

Source: UNDP/WTO/DOT 1991)
Effects of locating building too close to the shoreline. Potential of damage to physical structures from storm and storm waves increases when no proper setback is applied (adapted from Rees 1990)
Setbacks and natural beach vegetation are attractive while minimizing impacts on the beach environment.
BEFORE: Moalboal beach in 1980 was very attractive and spacious.

AFTER: Moalboal beach in 2001 has been almost totally lost due to illegal building and sand mining in foreshore areas.
Unplanned and unregulated development along the shoreline results in environmental degradation and resource use conflicts.

Proper development setbacks on beaches allow for natural cycles of sand movement and storm surge that prevent property damage. Public access can also be maintained in the foreshore area.
Foreshore management initiative in Dalaguete, Cebu

- Location: Southeastern Cebu, Central Visayas Region
- Area: 15,496 hectares
- Coastline: 15.31 km
- 33 barangays of which 10 are coastal
- Population: 60,000
- Major industries: Agriculture and fisheries
Foreshore Use Issues

- Diminishing mangrove resources due to mangrove cutting
- Sand quarrying
- Illegal structures along the coast
- Laxity in implementation and enforcement of ordinances/laws
Lack of awareness on foreshore laws, roles of agencies/parties involved

Overlapping/conflicting responsibilities of government agencies
Municipal Initiatives on Foreshore Management

The municipal Shoreline Management Program is incorporated in the Coastal Resource Management Plan.

- **Objectives**
  - To protect the shoreline from further degradation due to destructive activities

- **Strategies:**
  - Regulation of sand and coral mining
  - Protection and conservation of mangroves
  - Setting-up and maintenance of coastal setbacks for all development
  - Prohibition of the construction of dikes and seawalls in identified areas that will impede the natural water and current flow
  - Conduct of massive IEC campaign
Ground-level initiatives:


Status: initiated in one barangay (Balud)
2. Inventory of structures along the foreshore

- conducted by SB representatives, the Mun. Engr., MAO, CENRO, Brgy. Council representatives, MFARMC representatives, Dalaguete Coastal Police (DACOP), NGO representatives

- output: listing of all existing structures, types, claimants, observations, a listing of all pending foreshore lease applications (FLAs), barangay-level maps showing existing foreshore use
Municipal Initiatives… (cont’d.)

Policy level:

- Municipal Ordinance prohibiting any person or group to construct permanent structures on the shore and foreshore lots from Barangay Casay to Brgy. Obong.
- Declaring the foreshore areas of the municipality as “Municipal Reserve”.
- Creating a Municipal Management Board to oversee the foreshore and shoreline use of Dalaguete, Cebu.
Best practices packaged and showcased as CRM learning destinations
CRM travel showcase tour

- Modules of experiential interactive and educative travel activities that feature varied coastal environments, best CRM practices and challenges, as well as snapshots of local coastal culture and history.
Mindanao CRM Showcase
Tour Location and Main Access Points

- **DAY 1** -- Digos City (Provincial Capitol) - Brgy. Bato, Sta. Cruz (PANIF-TFF Headquarters) - Davao City (Malagos Watershed-Philippine Eagle Foundation-Malagos Garden)

- **DAY 2** -- Brgys. Dawan and Mamali, Mati (BBBCRM Project) - Brgy. Dahican, Mati (DENR-CEP Training Center)

- **DAY 3** -- Peñaplata, IGACOS (Aundanao Fish Sanctuary) - Babak, IGACOS (DENR Mangrovetum Project)

[Map showing locations in Mindanao]
DAY 1 -- Inabanga-Buenavista (Cambuhat River and Village Tour) Getafe (Banacon Island)

DAY 2 -- Guindulman (Basdio Marine Sanctuary) - Dimiao

DAY 3 -- Baclayon (Pamilacan Island) - Loboc (Loboc River) - Bilar (Man-made Forest) - Carmen (Chocolate Hills) - Loboc (Brgy. Candabong Salabat Processing Plant)

DAY 4 -- (Option) Candijay (Mangrove Adventure Tour - Brgy. Panadtaran)
Cebu CRM Showcase
Tour Location and Main Access Points

Manila
Davao
Cebu

CEBU CITY

OLANGO ISLAND
GILUTONGAN ISLAND
MOALBOAL
BADIAN

DAY 1 -- Olango Island (Olango Island Wildlife Sanctuary) - Gilutongan Island (Gilutongan Marine Sanctuary)

DAY 2 -- Badian (Kawasan Falls and Matutinao River) - Moalboal (Saavedra Marine Sanctuary)

OLANGO ISLAND WILDLIFE SANCTUARY
GILUTONGAN MARINE SANCTUARY
SAAVEDRA MARINE SANCTUARY
MATUTINAO RIVER
KAWASAN FALLS

Cebu CRM Showcase
DAY 1 -- Masbate City - Aroroy (Kalanay-Tinigban)
DAY 2 -- Aroroy (Tinigban-Gato Is.-Majaba Is.-Filmenera Mines) - Masbate City
DAY 3 -- Masbate City-Batuan (Tapus Is.-Matabao Is.-Bongsanlay Mangrove Natural Park) - San Jacinto
DAY 4 -- San Jacinto - Monreal (northern Ticao Islands-Borobangcaso Is.) - San Jacinto (Catandayagan Falls) - Masbate City (Buntod Reef, Poblacion)
Negros CRM Showcase

Cebu CRM Showcase
Tour Location and Main Access Points

Manila.
Cebu.
Dumaguete.
Davao.

Negros CRM Showcase

DOLPHIN AND WHALE-WATCHING TOUR

BAIS CITY

TALABONG MANGROVE FOREST

DUMAGUETE CITY

SILLIMAN UNIVERSITY

DUMAGUETE CITY DUMPSITE AND ECOLOGICAL PARK

APO ISLAND MARINE RESERVE

DAY 3 -- Dumaguete City (Silliman University; Dumaguete City Dumpsite and Ecological Park)

DAY 2 -- Bais City (Dolphin and Whale-Watching Tour; Talabong Mangrove Forest)

DAY 1 -- Dauin (Apo Island Marine Reserve)
IV. Conclusions

- CRM should provide context for tourism planning.
- Participation in management decisions is essential at all levels.
- National agencies with jurisdiction over coastal resources need to assist LGUs and provide technical support.
- Collaboration and synergy among agencies is essential.
- Multiple education and communication strategies are required to build a wide base of support for CRM.
- Proven technical interventions must be pursued and applied appropriately.