

State of the Mangroves in **ROMBLON**

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I. INTRODUCTION

Romblon is an archipelagic province strategically situated at the center of the Philippines. It has a lone congressional district with two legislative districts, seventeen municipalities and 219 barangays (**Appendix A**). The capital of the province is the island-municipality of Romblon. It is classified as a third-class province and belongs to Region IV-B (MIMAROPA).

The province lies within 12° 13' latitude and 121° 45' longitude, approximately 300 km south of Manila. It is surrounded by deep waters, bounded by Masbate Island in the east, Mindoro Island in the west, Marinduque Island in the north, and Panay Island in the south.

The total land area of Romblon is 135,590 ha representing 0.46% of the Philippines and 4.6% of the land area of Region IV-B (MIMAROPA). It has the second smallest area in MIMAROPA. About 72.98% of the total land area is classified as alienable and disposable while the remaining 27.98% is classified as forest land.

The province is known as the “marble capital” of the Philippines for its lucrative marble industry. The islands are geographically dispersed and accessible to and from Metro Manila and other provinces only through sea transportation. Tablas Island has a domestic airport located in Barangay Tugdan, Alcantara.

The province's large coastal area and municipal waters abound in marine resources. The fishing grounds of Romblon include migratory paths of fishes from the Sulu and the Visayan Seas via the Tablas Strait, the Sibuyan Sea, and the Romblon Pass. The sea of the island-municipalities of Concepcion, Banton, and Corcuera at the northwestern portion of the province is part of the Verde Island Passage-Marine Corridor (VIP-MC). This area is recognized as the center of the center of marine shore fish biodiversity in the world.

Out of 219 barangays, there are 168 coastal barangays in 17 municipalities (**Appendix B**). The shoreline length is 478.74 km with a coastal area of 53,258 ha. As of the 2010

census, Romblon has a total population of 283,930 while its coastal population is estimated at 251,931. The primary sources of income in the coastal communities are fishing, fish trading, farming (e.g. vegetables, root crops, and rice), copra production, livestock and poultry raising, seaweed farming, carpentry, charcoal and nipa shingles-making, and other local employment.

Social problems besetting the coastal areas are (1) the lack of sustainable/alternative livelihood; (2) the lack of health services; (3) inadequate solid waste management systems; (4) the lack of potable water system; (5) low compliance in fishery and other related environmental laws/policies; (6) resource-use conflicts in fishing, reclamation, tourism, and settlement; (7) lack of social and environmental awareness; and (8) limited government and other institutional support systems.

Importance of Mangroves

Mangroves provide nursery grounds, shelter and food for fish and other sea creatures; protect the coastal communities from storm surges; act as carbon sinks; serve as recreational grounds for wildlife enthusiasts; stabilize the coastline by reducing erosion; and regulate groundwater recharge/discharge.

Mangroves have significant socio-economic importance in the province. Coastal communities benefit from mangroves as their source of charcoal, timber, honey, traditional medicines, and housing materials. Mangroves also support fisheries and aquaculture production, and develop or enhance ecotourism, spiritual and cultural values (**Fig. 1**). Most of the coastal residents in the province earn income from various mangrove products, particularly wood, fishes, prawns, crabs, shellfish, and honey.

II. STATUS OF MANGROVES IN ROMBLON

Based on the data gathered from DENR, the mangrove area is about 1,263.29 ha in which 230.22 ha is considered as old stand located in Cajidiocan, Romblon, San Agustin, and Calatrava (**Table 3**).

Table 3. Estimated areal extent of mangroves in Romblon (ha).

Old Stand	Secondary Growth	Plantation
230.22	539.77	493.30

From 2009, various national and local government agencies resorted to massive Mangrove Planting Program of about 493.30 ha. **Fig. 2** shows some planted mangroves for mangrove rehabilitation programs from both national and local initiatives.

Table 4 shows the list of areas planted from year 2009 up to 2015. The total mangrove plantation area is 390.3 ha. **Fig. 3** shows the provincial mangrove profile map.

The dominant mangrove species found in the province are from the genera *Avicennia*, *Nyssa*, *Rhizophora*, and *Sonneratia*. About 14 mangrove species are reported. Species planted are from the genera *Avicennia* (Piapi and Bungalon); *Rhizophora* (Bakawan babae, Bakawan lalaki); *Sonneratia* (Pagatpat); and other mangrove species such as nipa.

Table 4. Planted mangrove area profile of Romblon.

Date	Municipality/Barangays	Area Planted (ha)
2015	Odiongan; Ferrol; Looc; Sta. Fe; Calatrava; Romblon; Magdiwang, Cajidiocan	11
2012–2014	Balogo, Calatrava	25
2000–2014	Sugod, Carmen, Cabolutan, Cagboaya, Dubduban, Doña Juana, and Bachawan in San Agustin	11
2013	Magdiwang, Cajidiocan, Romblon, San Agustin, Looc, Sta. Fe, and Alcantara	7
2011–2013	Ginablan, Li-o, Agnay, Mapula, Logbon, Lanas in Romblon, Romblon	4.3
2013	Ferrol, Alcantara, Corcuera, Sta. Fe, Cajidiocan, Magdiwang, Odiongan, and Ferrol	322
2009	Suba Bay, Corcuera	10



Figure 1. Socio-economic activities in the mangrove areas of Romblon.



Figure 2. National and local initiatives on mangrove rehabilitation in Romblon.

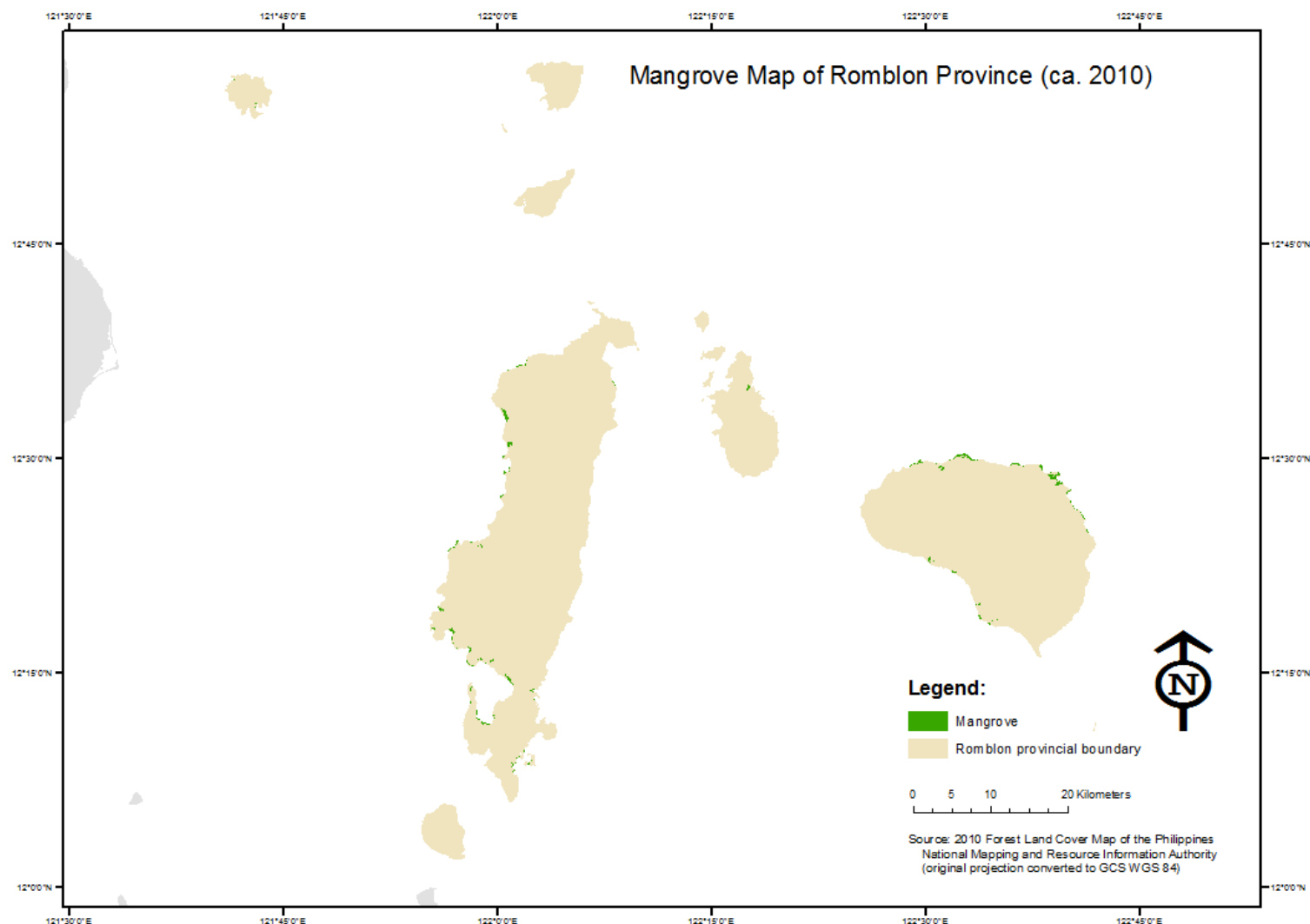


Figure 3. Provincial mangrove profile map of Romblon

Degradation of Mangrove Forests

Threats both from anthropogenic and natural causes greatly contribute to the degradation of the mangrove forests in the province. However, the massive mangrove rehabilitation efforts of the national and local governments (**Fig. 4**) may reverse this trend.

Threats to Mangrove Forests

Some of the identified natural hazards and human disturbances in Romblon are (1) global warming and sea level rise; (2) cutting of mangrove forests and grazing of goats; (3) illegal construction of fishponds; (4) human settlements/reclamation; (5) unregulated tourism development; (6) presence of plastic trashes and other wastes; (7) illegal beach quarrying; (8) weak institutional support systems; and (8) the absence of well-organized coastal law enforcement team (**Fig. 5**).

III. MANGROVE PROTECTION AND MANAGEMENT

Table 5 shows the list of protected mangrove areas (total: 1,114.98 ha) that have existed since 1980s.

Table 5. List of mangrove protected areas in Romblon.

Municipality	Size (ha)
Looc (Tablas Island)	253.5
Magdiwang (Sibuyan Island)	233.19
Sta. Fe (Tablas Island)	199.6
Cajidiocan (Sibuyan Island)	197.39
Ferrol (Tablas Island)	138
Odiangan (Tablas Island)	47.8
Corcuera	24
Romblon	21.5
TOTAL	1,114.98

The policies related to mangrove protection and management are found in Proclamation 2152 (dated December 29, 1981 for Sibuyan Island as Mangrove Swamp Forest Reserve), Republic Act (RA) 7161 (prohibition on cutting of mangroves), RA 8550 (Philippine Fisheries Code), PD 705 (Revised Forestry Code); Provincial Development and Physical Framework Plan (PDPFP; 2010–2040),

Environment and Natural Resources Office (ENRO) Code, Municipal Fishery Ordinance and Resolutions, and Integrated Coastal Management (ICM)/MPA Plans. Agencies who exerted efforts in the mangrove protection are Department of Environment and Natural Resources - Provincial Environment and Natural Resources Office (DENR-PENRO), Department of Agriculture - Bureau of Fisheries and Aquatic Resources - Provincial Fisheries Office (DA-BFAR-PFO), Provincial Government-ENRO and Office of the Provincial Agriculturist(OPAg), Municipal Local Government Units - Municipal Agriculture Office (MLGUs-MAO), Barangay Local Government Units (BLGUs), and People's Organizations (POs).

Mangrove Rehabilitation

Table 6 shows the continued efforts of various stakeholders in the protection, rehabilitation or planting of mangroves in the province.

Monitoring and Evaluation

Based on field observation (**Fig. 6**), the overall status of planted mangroves in the province is in good condition with an average survival rate of 70%.



Figure 4. Mangrove rehabilitation efforts of national and local government in Romblon.

Impacts of Mangrove Rehabilitation

Positive impacts of rehabilitating degraded mangrove areas include: (1) improved supply of fish and other marine products; (2) decrease in coastal hazards; (3) improved aesthetic quality; (4) enhanced ecotourism attraction; (5) enhanced biodiversity; (6) improved social and environmental awareness; and (7) establishment of institutional support systems.

Table 6. List of active projects/programs on mangrove protection and management in Romblon.

Projects/ Programs
1. Mangrove Restoration through Food for Work/ Cash for Work
2. Provincial Mangrove Nursery
3. Coastal Resources Management Program – Mangrove Rehabilitation
4. National Greening Program – Mangrove Rehabilitation
5. Integrated Coastal Resources Management Project



Figure 5. Common threats to mangrove forests in Romblon.



Figure 6. Field observation, monitoring, and evaluation of mangroves in Romblon.

IV. Summary & Recommendations

There are significant increases in mangrove cover in the province. With these progress, we recommend the following actions to be undertaken by concerned stakeholders:

1. Develop sustainable livelihoods for coastal communities;
2. Sustain and strengthen initiatives on mangrove rehabilitation, protection, and management;
3. Institutionalized social mobilization; and
4. Strengthen linkages and network with other institutions for funding, research or extension support.

V. REFERENCES

- DENR-PENRO Annual Reports, 2009–2014.
 DA-BFAR-PFO Annual Report, 2012.
 PG ENRO Coastal Management. Reports, 2014–2015.
 Romblon Ecological Framework, 2003 and 2015.
 Provincial Development and Physical Framework Plan (PDPFP), 2010–2040.
 Survey of Municipal Mangrove Assessment Report, 2014.