State of the Mangroves in

OCCIDENTAL MINDORO

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I. INTRODUCTION

The province of Occidental Mindoro lies off the southern coast of the Luzon mainland. It is the western part of Mindoro Island and is under the administrative region of MIMAROPA (Region IV-B). It has a land area of 587,990 ha, a coastal area of 17,000 ha, and a shoreline length of 334.8 km. The province has 11 municipalities, namely, Abra de Ilog, Calintaan, Looc, Lubang, Magsaysay, Mamburao, Paluan, Rizal, Sablayan, San Jose, and Santa Cruz. These municipalities have 82 coastal barangays (**Appendix D**).

The province has a total population of 452,972, of which 234,509 are male and 218,463 are female (NSO 2010). The primary sources of income of coastal residents are from capture fisheries and aquaculture. The average annual household income is approximately Php 166,109 (NCSB 2009). Common problems of coastal residents are poverty (in which basic needs are unmet), poor hygiene and sanitation (resulting in illnesses), and limited assistance and intervention from the government.

The coastal areas of Occidental Mindoro are home to a large and growing population. This growth along its coasts have produced many economic benefits, including improved transportation links, industrial and urban development, revenue from tourism, and food production. However, the burgeoning population combined with the effects of economic and technological developments have led to environmental decline and continues to threaten the ecosystem integrity of coral reefs, seagrass beds, and mangrove forests.

Importance of Mangroves

In the province, mangroves are known to provide shoreline protection (e.g. erosion control), habitat and breeding areas of various marine organisms, and good sources of food. Mangroves are also sources of products such as wood, fish, and clams, particularly for the residents of the municipalities of Magsaysay, San Jose, Abra de Ilog, Looc, and Lubang.

II. STATUS OF MANGROVES IN OCCIDENTAL MINDORO

Based on the Landsat imagery study of Long and Giri (2011), Occidental Mindoro has a total of 1,842.93 ha of mangroves. In contrast, the present estimates by the DENR is 2,500 ha, including secondary growth and new plantation. Old stands account for 420 ha, most of which are in the municipality of San Jose. **Table 8** shows the old stand, secondary growth and new plantations of mangroves in the province. Mangrove planting program started in 2005.

Table 8. Estimated areal extent of mangroves in Occidental Mindoro (ha).

Old stand	Secondary growth and plantation
420	2,080

Occidental Mindoro has 16 species of mangroves namely, *Aegiceras corniculatum*, *Avicennia marina*, *Avicennia officinalis*, *Bruguiera gymnorrhiza*, *Ceriops decandra*, *Ceriops tagal*, *Excoecaria agallocha*, *Heritiera littoralis*, *Lumnitzera racemosa*, *Nypa fruticans*, *Pemphis acidula*, *Rhizophora apiculata*, *Rhizophora mucronata*, *Rhizophora stylosa*, *Sonneratia alba*, and *Xylocarpus moluccensis* (Samson, 2012)

Degradation of Mangrove Forests

The decline of mangrove stands in the province are due to the (1) conversion of mangrove areas into aquaculture areas; (2) reclamation and conversion for agriculture and settlements; (3) cutting of mangroves for firewood and housing materials; and (4) flooding, soil erosion, and sedimentation. The decline in mangrove stands has exposed communities to greater risks from coastal hazards (e.g. storm surge, tidal flooding, and sea level rise) and decreased the feeding and nursery grounds for fishes which, in turn, has decreased the fish catch.

Threats to Mangrove Forests

In the past, mangroves have been viewed as wastelands by local communities and even by the government. Thus, significant portions of mangrove areas in the province were cleared to make room for settlements, agriculture, other industries, and infrastructure (e.g. ports and harbors). More recently, such clearings have been done for tourism developments.

III. MANGROVE PROTECTION AND MANAGEMENT

To protect and rehabilitate mangrove areas, the following activities have been carried out in the province since the early 1990s: (1) implementation of Municipal Fisheries Ordinance (MFO); (2) mangrove-planting led by the BFAR and DENR and implemented by the LGU through its Municipal and Barangay Fisheries and Aquatic Resource Management Council (M/BFARMC) or people's organizations; and (3) tree planting in upland areas to prevent soil erosion.

One of the most recent and notable projects in the province is the Mangrove and Beach Forest Development Project (MBFDP), which is a component of the National Greening Program (NGP) aimed at stabilizing the coastal areas of the country. The project hopes to help (1) reduce poverty among coastal residents; (2) mitigate climate change; (3) manage and sustain fisheries production; and (4) lessen dependence on fishing. The project was carried out by the DENR and LGUs through the M/BFARMCs from February to December 2015, covering approximately 767.1 ha in six municipalities. Although the project still needs to be evaluated, the growth and survival of mangrove seedlings were observed to have been negatively affected by wave and wind action, boat parking, and other human activities. There were other mangrove rehabilitation projects implemented at the barangay level, but no information is available yet as to the coverage of mangroves and the progress of these projects. **Table 9** summarizes the other mangrove rehabilitation projects in the province.

Table 9. Mangrove rehabilitation programs in Occidental Mindoro

Name of Project	Year	Area (ha)
Mangrove and Beach Forest Development Project (MBFDP)	2015	767
DENR Initiative Planting (DENR-CENRO, San Jose)	2014	2
	2012	29

IV. SUMMARY AND RECOMMENDATIONS

There is a need to continue raising the awareness of communities on the importance of coastal habitats, particularly mangrove forests. This will help in encouraging communities to support and take part in CRM efforts. Organizing and strengthening the fisherfolk and other community groups will help in sustaining CRM efforts at the local level. There is also a need to provide alternative non-fisheries livelihoods in coastal communities to reduce fishing pressure.

V. REFERENCES

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