

Lake Basin Management Initiatives in the Philippines

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There is no national policy that specifically deals with wetlands and lakes in the Philippines, although there are a lot of policies with provisions on wetland conservation and sustainable use. Lake Management adheres to international commitments such as the Ramsar Convention on Wetlands Strategic Plan, the Sendai Framework on Disaster Risk Reduction, the Paris Climate Agreement, the Convention on Biodiversity Aichi Targets, and the UN Sustainable Development Goals (SDGs). At the national level, we have developed the Philippine Biodiversity Strategy and Action Plan, the National Climate Change Action Plan, and the National Disaster Risk Reduction and Management Plan. All these have generic provisions on wetland management to include freshwater ecosystems. In 2016, the first Atlas of Philippine Inland Wetlands was published by the Biodiversity Management Bureau, Department of Environment and Natural Resources (BMB-DENR).

Currently, about 254 lakes are recorded and found to be scattered over 200,000 hectares of the country's surface area. Lakes in the Philippines have provided many ecosystem functions, including as a major source of the country's fisheries and as a habitat to many endemic species. However, Lake Lanao, the second largest lake, has lost more than 50% of its 20 endemic fish species over the last 20 years. Most lakes also serve as catchment basins, flood retention areas, a source of water for irrigation, domestic uses, and power generation, and recreation, cultural and religious practices.

The concept of Integrated Lake Basin Management (ILBM) as applied in the Philippines is not anymore new as some of its aspects are in a way similar to the idea behind existing approaches used in natural resource management and conservation, such as Integrated Water Resources Management (IWRM), Integrated Coastal Management (ICM), Integrated Ecosystems Management (IEM), Integrated River Basin Management (IRBM), Integrated Watershed Management, the Ridge-to-Reef Approach, or the Ecosystem-Based Approach, among others. Specific initiatives of the DENR related to these approaches are 1) Characterization and vulnerability assessments of critical watersheds, 2) Development and implementation of basin-wide integrated river basin master plans for 20 major river basins in the country, 3) Inventory and mapping of wetlands with emphasis on the connectivity of ecosystems, and 4) Development of plans for the management of wetlands critical to biodiversity, within and outside of protected areas. Meanwhile, ILBM which emphasizes the connectivity and integration of the six pillars of lake governance has been applied by the Laguna Lake Development Authority (LLDA). There have also been initiatives on ILBM training by ILEC in collaboration with the LLDA, DENR, and the Save Lake Lanao Movement.

The Philippines implements the following management models for lakes: 1) Lakes which are part of the National Integrated Protected Areas System, 2) Lakes which are governed by a mandated Development Authority or Management Body, 3) The lakes which are locally managed by the Local Government Unit and declared as a Local Conservation Area, 4) Lakes which are considered critical for the survival of globally important species and are declared as Critical Habitats, and 5) Lakes that are internationally recognized for their global significance or are members of Site Network (such as a Ramsar Site or East-Asian Australasian

Flyway [EAAF] Network Site). Laguna Lake Development Authority (LLDA) is the only lake basin management authority in the country created through a special law (Republic Act 4850) in 1969. Administration of lakes by local governments is through the declaration of Local Conservation Area or by local regulations executed by an ordinance of the concerned local government.

Some of the common issues facing lake management in the Philippines are transboundary management issues including challenges on the identification and management of pollution sources and environmental flows, lack of management plan, lentic-lotic ecosystems dynamics, insufficient information on biodiversity and ecosystem services, and weak stakeholder participation in management. Many strategies to address those challenges are enumerated. First, lake management and conservation need to be harmonized through the institutionalization of a national policy and program on wetlands conservation and wise use. While proposed national policies specific to wetland conservation had been drafted, these are still pending approval as a law. Second, DENR and other organizations are conducting continuous capacity building and CEPA (Communication, Education, and Public Awareness) on ILBM for key players in lake management. Third, strengthening of lake management is being conducted through more comprehensive monitoring and assessment of lake basins and the resources within. The DENR is also actively building networks and strengthening partnerships for wetlands and lake management and conservation, including the Convergence Initiative with the Department of Agriculture – Bureau of Fisheries and Aquatic Resources, on matters related to conservation of aquatic resources and habitats. Meanwhile, stakeholder participation and engagement are also being encouraged through private-public partnerships, volunteerism activities and capacitating them in citizen science assessments and monitoring. Although Integrated Lake Basin Management seems to be scattered with its many different schemes, governing policies, and increasing awareness, the Philippine government is on its way to making progress and is paving the way for a clearer direction for lakes.