



Saving Peatlands for Disaster Mitigation

Of all types of Philippine inland wetlands, peatlands, which are waterlogged areas that contains at least 65 per cent organic matter, are the most threatened as it is hard to identify – requiring chemical tests and analysis before verification- compared to others e.g lakes, swamps, marshes which can be identified by sight. Because of this, peatlands have always been in threat of conversion even though it is the wetland type that can contribute most to water sequestration and carbon storage.

IUCN mentioned that peatlands store 30 per cent of the world's carbon. Continuously degraded, this stored gas is emitted and thus adds two (2) gigatons of carbon dioxide in the atmosphere each year¹.

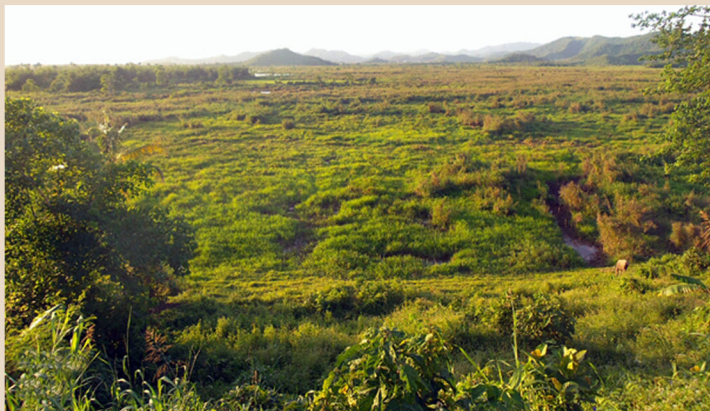


Photo by DENR-BMB (Leyte Sab-a Basin)

If left undisturbed and intact however, peatlands become not only repository of the greenhouse gas which contributes to climate change, but also act as sponge-storing water during rainy days and letting it seep out during dry season. These ecological benefits, together with the fact that peatlands are sanctuaries to different flora and fauna, makes it an important type of ecosystem to be conserved.

Initiatives on Philippine peatlands only started with the development of the National Action Plan for the Sustainable Use and Protection of Peatlands in the Philippines in 2005. Before that, there were only few studies which only provided brief descriptions.

Since then, nine (9) peatlands have been identified in the country: seven (7) in Agusan del Sur, one (1) in Leyte, and another in Quezon Province. Of these the Caimpugan Peatland in Agusan, and the Sab-a Basin in Leyte is considered as having the largest amount of peat.

The Association of South East Asian Nations (ASEAN) regional projects such as the ASEAN Peat Forest Project (SEAPeat project) paved the way in introducing peatlands and its values to different stakeholders by working with Local Governments and other organizations for conservation ordinances to be passed; production of information materials like the Peat Swamp Flora of Agusan Marsh; research on other identified peatland sites, and introduction to tourism and livelihood programs.

Peatland conservation continues to this day with the discovery of other sites and implementation of new programs and projects such as the “Improving Sustainability of Freshwater Ecosystems” and the “Development and Management Strategies for Peatlands” of the Ecosystems Research and Development Bureau, and the Leyte Sab-a Peatland Restoration Initiative of the International Institute of Rural Reconstruction through the support of the Forest Foundation Philippines.

Agusan Marsh Wildlife Sanctuary

The Agusan Marsh is a vast complex of swamp forest which lies within the Agusan River Basin- the third largest river basin in the Philippines. Seven peatlands have been identified within the marsh. The largest is the Caimpugan Peatlands which measures 5,325 hectares and can be found inside the Agusan Marsh Wildlife Sanctuary (AMWS)- a protected area, as well as a Ramsar Wetland of International Importance.

Note: (1) <http://www.aseanpeat.net/newsmaster.cfm?&menuid=11&action=view&retrieveid=4241>



Photo by DENR-BMB (Agusan Marsh Peatland)

Leyte Sab-a Basin

Sab-a Basin is a 3,088-hectare basin found in Leyte. Back in the 1950's, it was an intact wetland forest but most of it has been converted to agricultural uses starting in the 1970's when the Marcos Administration designated it to be the "food basket" of the Province. The project however, failed because of poor yield. From then until now, road development, draining, conversion to agriculture, and cutting of naturally growing trees serves as threats to the wetlands.

Initiatives that have been done to conserve the Sab-a Basin includes strengthening of Local Government collaboration, and the integration of the management of the area in the Comprehensive Land Use Plan. This 2017, the "Leyte Sab-a Peatland Forest Restoration Initiative" aims to restore the degraded wetland and further strengthen the management system that is in place².

Controlling Floods

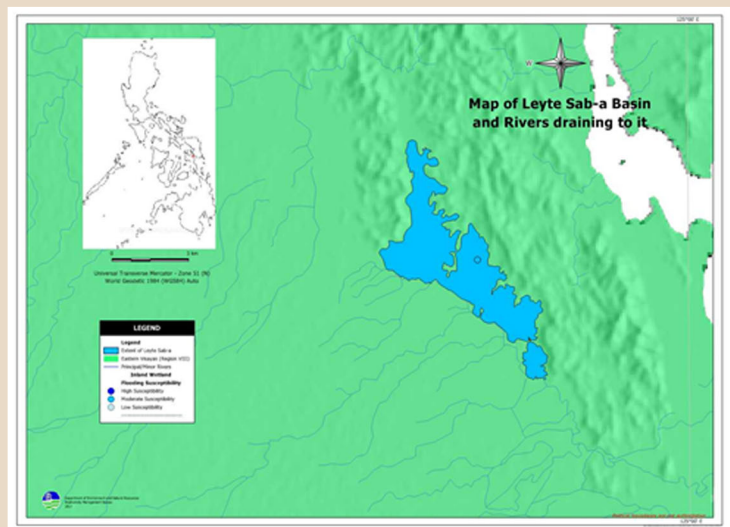
The SEAPeat report recognizes the substantial contribution of the Agusan Marsh Wildlife Sanctuary (AMWS), a Ramsar Site, in reducing flood peaks especially in the downstream areas where settlements are established. During the dry season, the marsh release water back to the nearby Agusan River and recharges ground water. However, this ecosystem services can only be sustained if the areas remain intact. As an interview revealed, flooding was not that prevalent 20 years ago when the Pag-asa Peatland, one of the peatlands in the AMWS, was not yet been drained and converted.

Note: (2) International Institute of Rural Reconstruction (IIRR) project proposal

Other sources: SEAPeat National Report, BMB. 2015

Layout by SCPW (Aaron Lecciones)
Banner photo by DENR-BMB (Leyte Sab-a Basin)

The same is true for the Leyte Sab-a Basin which is considered the largest water catchment basin in Leyte. Like Agusan Marsh and its peatlands, it holds large amount of water during rainy season which it releases during dry season.



Map of Leyte Sab-a Basin shows how the wetland becomes a basin to the Palo River system

Mapping Wetland Priorities for Ecosystem - based Disaster Risk Reduction (Eco-DRR) and Climate Change Adaptation (EbA) in the Philippines



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Published May 2018