

ASEAN Peatlands Management Strategy 2006-2020: Promoting sustainable management of peatlands in Southeast Asia

By Norman Emmanuel Ramirez *

Peatlands are wetland ecosystems that are characterized by the accumulation of organic matter called “peat” which are derived from dead and decaying plant material under high water saturation conditions. Peatlands are one of the most important natural ecosystems in the world which have key values for biodiversity conservation, climate regulation and support for human welfare (CC-GAP, 2005). At the species and genetic level, these unique and complex ecosystems play a special role in maintaining biodiversity as a result of habitat isolation. At the ecosystem level, the value of peatlands lies in its ability to self-organize and adapt to different physical conditions (ACB, 2010).

Peatlands cover more than 400 million hectares in about 180 countries and represent one third of the wetland resource in the world (CC-GAP, 2005). Southeast Asia has more than 25 million hectares of peatland, comprising 60 percent of the global tropical peatland resource. Most of the peatlands in the region can be found in Indonesia, which has over 70 percent of the total peatland cover of Southeast Asia. Other major peatland areas are located in Brunei Darussalam, Malaysia, the Philippines, Thailand, and Viet Nam. Peatlands are usually found in low altitude, sub-coastal areas extending

inland to distances of up to 300 kilometers. The depth of peat varies from 0.5 to more than 10 meters. The significance of peatlands in Southeast Asia has been attributed to socio-economic development and support for the livelihoods of local communities (ASEAN Secretariat, 2007).

Threats to peatland ecosystems

At present, degradation of peatlands in many parts of the world is clearly evident due to human and natural causes. Western Europe has already lost over 90 percent of its original functioning peatlands, while central



Photo by Ahmad Muhsin Mubarak/Malaysia

Mukah, Sarawak, Malaysia

Europe has lost more than 50 percent. In southern and eastern Africa, many peatlands have been converted to agriculture and remaining natural peatlands are under severe threat of conversion and degradation (CC-GAP, 2005).

In Southeast Asia, up to 70 percent of the tropical peat swamp forests have been significantly affected by logging, deforestation, draining, and agriculture. An estimated seven million hectares of peatlands have been cleared and drained for agriculture and forestry in recent years. The oxidation of desiccated topsoil results in 50 to 100 tons of

carbon dioxide released to the atmosphere emission per hectare per year, or approximately 350 to 700 million tons annually.

In these conditions, fires easily spread in drained areas which can last for long periods. Accompanying these fires, large volumes of smoke spread throughout Southeast Asia causing an estimated USD10 billion worth of economic damage and affecting the health of millions of people. Peatland fires also destroy the carbon store built up over thousands of years. In 1997 and 1998, flames engulfed about 2.2 million hectares of peatlands in Indonesia,

contributing 10 to 20 per cent or 1 to 2 billion tons of the world's carbon dioxide emissions (CC-GAP, 2005).

The need for collective action: ASEAN Peatland Management Initiative

In the past, a number of efforts directed at the effective management of peatlands in the ASEAN region have been implemented at national levels. Several joint initiatives following ASEAN cooperation arrangements were undertaken. However, these activities were somewhat limited. Initial efforts concentrated on immediately addressing fire and haze issues, but failed to consider a more sustainable approach specifically for peatlands in the region.

In this respect, the ASEAN Peatland Management Initiative (APMI) was established to provide a framework to promote participation and bring the different actors together in order to widen the knowledge base and opinion; increase understanding of major issues within and between different groups; facilitate exchange of important and critical information on peatland management in the region; and increase coverage in action programmes. The existence of this framework ensures that gaps and priority areas of actions for peatlands conservation within the ASEAN region can be determined (ASEAN Secretariat, 2007). The APMI was developed by the ASEAN Secretariat, with assistance from the Global Environment Centre-Malaysia, and was adopted by the 20th Meeting of the ASOEN-Haze Technical Task Force (HTTF) in the Philippines in Feb 2003 (GEC, 2013).

A sustainable approach: the ASEAN Peatland Management Strategy

The ASEAN Peatland Management Strategy

Focus Areas	Operational Objectives
1. Inventory and Assessment	1.1 Determine the extent and status of peatlands in the ASEAN region (including issues of definition) 1.2 Assess problems and constraints faced in peatland Management 1.3 Monitor and evaluate peatland status and management
2. Research	2.1 Undertake priority research activities
3. Awareness and Capacity Building	3.1 Enhance public awareness on importance of peatlands, its vulnerability to fire and, the threat of haze through implementation of a comprehensive plan 3.2 Build institutional capacity on management of peatlands
4. Information Sharing	4.1 Enhance information management and promote sharing
5. Policies and Legislation	5.1 Develop or strengthen policies and legislation to protect peatlands and reduce peat fire
6. Fire Prevention, Control and Monitoring	6.1 Reduce and minimize occurrence of fire and associated haze
7. Conservation of Peatland Biodiversity	7.1 Promote conservation of peatland biodiversity
8. Integrated Management of Peatlands	8.1 Promote multi-agency involvement in peatland management 8.2 Promote integrated water resources and peatland management using a basin-wide approach and avoiding fragmentation 8.3 Promote integrated forest and peatland management 8.4 Manage agriculture in peatland areas in integrated manner 8.5 Promote integrated community livelihood and peatland management
9. Promotion of Demonstration Site for Peatland	9.1 Promote best management practices
10. Restoration and Rehabilitation	10.1 Develop appropriate techniques for the restoration or rehabilitation of degraded peatlands 10.2 Rehabilitate burnt, drained and degraded peatlands
11. Peatland and Climate Change	11.1 Protect and improve function of peatlands as carbon sequestration and storage 11.2 Support peatland adaptation process to global climate change
12. Regional Cooperation	12.1 Promote exchange of expertise in addressing peatland management issues 12.2 Establishment of 'centres of excellence' in the region for peatland assessment and management 12.3 Contribute to the implementation of other related agreements and regional cooperation mechanisms 12.4 Enhance multi-stakeholder partnerships to support peatland management
13. Financing of the Implementation of Strategy	13.1 Generate financial resources required for the programmes and activities to achieve target of the strategy

Source: ASEAN Peatland Management Strategy

(APMS) was the product of one of the initial actions of the APMI. The APMS provides a framework for all those with responsibilities for and commitments to the sustainable management of peatlands – its wise use, prevention of fires, and its rehabilitation (ACB, 2010). The APMS was endorsed at the 22nd Meeting of the ASOEN-Haze Technical Task Force (HTTF) in Brunei Darussalam in Nov

2005 and the 10th ASEAN Ministerial Meeting on the Environment (AMME) in the Philippines in November 2006 (GEC, 2013).

The APMS has four general objectives: 1) enhancement of awareness and capacity building; 2) addressing transboundary haze pollution and environmental degradation; 3) promotion of the sustainable management of peatlands; and 4) promotion

of regional cooperation. Each general objective is matched by specific operational objectives that are grouped into 13 focal areas. The table above shows these focal areas and the corresponding operational objectives.

Operationalizing the APMS

An accompanying action plan (APMS Action Plan) has been adopted, as well,



Raja Musa Peat Swamp Forest, Selangor, Malaysia

Photo by Nagarajan Rengasamy/GEC

as part of the APMS. This is needed to operationalize the APMS. Specific action points are assigned for each operational objective to be implemented at different levels and time scales. There are two proposed levels of actions: regional and national. Regional actions could be those that enhance or complement national actions through sharing of experiences, information and knowledge; and establishment of regional networks and joint regional approaches.

Action points are also envisioned to be implemented in different time scales: short term (2005-2010), medium term (2005-2015), long term (2005-2020), and continuous, for actions that should be undertaken on a continuing basis. A level of priority is also assigned for each action, i.e. low, medium and high. Assignment of priority for country-level actions will assist ASEAN Member States in prioritizing actions under their respective National Action Plans (ASEAN Secretariat, 2007).

ASEAN Member States are currently preparing their respective National Action Plans (NAPs) for the period of 2006-2020 for country-driven initiatives. The NAPs

must complement and be aligned with the objectives of the APMS and should consider the capacities of national institutions that will implement the NAPs.

Enhancing Peatlands Management through Regional Cooperation

In the ASEAN Member States, there are no policies specifically on peatlands. Different aspects of peatland management are governed by a variety of national and local laws and regulations. Most of the ASEAN Member States have a wide range of agencies or offices that have certain responsibilities related to the management of peatlands. A number of aspects on peatland management are common in the ASEAN region: problems of fire, drainage, livelihood opportunities, sustainability, among others. This scenario, therefore, calls for strengthened coordination and co-operation among concerned stakeholders at the national and regional levels.

The APMS emphasizes the promotion of regional cooperation as one of its general objectives. Currently, two projects are being implemented to support the implementation of regional and national strategies for

sustainable management of peatlands in Southeast Asia and the incorporation of peatland management into policies and plans related to forest and land-related resources. These two complementing projects are the "Rehabilitation and Sustainable Use of Peatland Forests in Southeast Asia (APFP Project)" and "Sustainable Management of Peatland Forest in Southeast Asia (SEApeat Project) (www.peat-portal.net).

As an intergovernmental regional centre of excellence, the ASEAN Centre for Biodiversity (ACB) supports the implementation of the APMS. ACB recognizes the significant role of peatlands, especially in establishing its strong connection between biodiversity conservation and contributing to addressing climate change issues. In 2009, ACB supported the project "Conservation of Peatland Biodiversity in South East Asia (Phase II)" under the ACB Joint Research/Initiatives on Biodiversity Programme. This project was implemented by the Global Environment Centre, a non-profit non-government organization established in 1998 to address key environmental issues.

ACB shall further promote peatlands conservation guided by its mandates to assist the ASEAN Member States in policy formulation, capacity development, awareness-raising, and establishing links with national and international organizations. Establishing strategic partnerships with organizations from the government and private sectors is an important approach to resolve common issues and challenges on peatlands management. ■

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