

APFP-SEAPEAT KEY ACHIEVEMENTS 2010-2015



ASEAN Peatland Forests Project (APFP)

**Supported
by:**



**Executing
Agency:**



**National
Executing Agency:**



**Regional Project
Executing Agency:**



Sustainable Management of Peatland Forests in Southeast Asia (SEApeat Project)

**Supported
by:**



**Executing
Agency:**



Project Associates:



Published by the ASEAN Secretariat and Global Environment Centre

First published November 2015.

Second published March 2016.

ISBN: 978-967-5554-10-0

Printed in Malaysia

Copyright © 2015 Association of Southeast Asian Nations (ASEAN) and Global Environment Centre

Reproduction of material from the publication for educational and other non-commercial purposes is authorized without prior permission from Global Environment Centre or ASEAN, provided full acknowledgement is appreciated.

All rights reserved.

Publication supported by

The ASEAN Peatland Forests Project (APFP) and Sustainable Management for Peatland Forests in Southeast Asia (SEApeat) project with funding from Global Environment Facility (GEF) through International Fund for Agricultural Development (IFAD) and the European Union (EU).

Front cover photo © Azura/GEC

APFP-SEApeat Key Achievements 2010-2015

Under the Framework of
the ASEAN Peatland Management Strategy 2006-2020

ASEAN Peatland Forests Project (APFP)

and

**Sustainable Management of Peatland Forests in Southeast Asia
(SEApeat Project)**

Prepared by

Global Environment Centre (GEC)
in consultation with the ASEAN Secretariat and ASEAN Member States.

Financial support provided by

Global Environment Facility (GEF) through its implementing agency the
International Fund for Agricultural Development (IFAD) and the European
Union.

INTRODUCTION

The **ASEAN Peatland Forests Project (APFP)**, funded by the Global Environment Facility (GEF) through the International Fund for Agricultural Development (IFAD); was executed by the Association of Southeast Asian Nations (ASEAN) Secretariat and implemented in four ASEAN Member States, namely Indonesia, Malaysia, Philippines and Viet Nam. It aimed to demonstrate, implement and scale up the integrated management of peatlands in Southeast Asia. The Project was completed in December 2014.

The related **SEApeat project**, funded by the European Union through the Global Environment Centre (GEC), seeks to reduce deforestation and greenhouse gas (GHG) emissions caused by the degradation of peatland forests in Southeast Asia.

The combined projects involved all ten ASEAN Member States (AMS) in regional activities and/or pilot site activities in eight AMS. The projects aimed to promote and support the implementation of the ASEAN Peatland Management Strategy (2006-2020) especially related to capacity building, fire prevention and sustainable management of peatlands in the region. ASEAN Secretariat is the Executing Agency of the APFP while GEC is the Regional Project Executing Agency of both the APFP and SEApeat projects. The SEApeat Project was completed in January 2016. Further details of these two projects can be found at a dedicated website (www.aseanpeat.net).

PROJECT GOALS AND OBJECTIVES

The goal of these projects was to promote the sustainable management of peatland forests in Southeast Asia to sustain local livelihoods, reduce the risk of fires and associated haze and contribute to global environmental management.

The immediate objective of the APFP was to demonstrate integrated management of peatlands in Southeast Asia through strengthened capacity, multi-stakeholder partnerships, testing innovative approaches and rehabilitation of pilot sites.

INSTITUTIONAL FRAMEWORK FOR THE ASEAN PEATLAND FORESTS PROJECT



NPIC: National Project Implementing Committee

NPEA: National Project Executing Agency

APFP (2009 – 2014)

This project was funded by the Global Environment Facility (GEF) through the International Fund for Agricultural Development (IFAD). The project was granted to ASEAN in 2009 and the project divided into five components – four countries (Indonesia, Malaysia, the Philippines and Viet Nam) plus a regional component.

1. The Regional Component built a strong regional framework for partnership, information sharing and capacity building; and provided guidelines for best management practices.
2. The Indonesia Component implemented actions on integrated peatland management at the site level in Riau and West Kalimantan Provinces (where peat fires are a recurrent threat).
3. The Malaysia Component focused on sustainable use and rehabilitation of degraded peatlands, particularly in the State of Selangor through capacity building, fire prevention and control, private sector partnership and demonstration of best management practices.
4. The Philippines Component highlighted the involvement of key national and local government agencies, non-government organisations and the communities in awareness raising, capacity building and improving multi-stakeholder cooperation for sustainable peatland management.
5. The Viet Nam Component promoted the integrated management of peatlands through capacity building and improved inter-sectoral management with focus on U Minh Thuong National Park.

APFP Executing Agencies:

Project Executing Agency: ASEAN Secretariat	
Regional Project Executing Agency: Global Environment Centre	
COUNTRY COMPONENTS	NATIONAL PROJECT EXECUTING AGENCY
Indonesia	Ministry of Environment
Malaysia	Forestry Department of Peninsular Malaysia
Philippines	Biodiversity Management Bureau – Department of Environment and Natural Resources (BMB-DENR)
Viet Nam	Viet Nam Environment Administration

SEAPEAT PROJECT (2011-2015)

A complementary project – **Sustainable Management of Peatland Forests in Southeast Asia (SEApeat)**

Financed by the **European Union** (2011-2015) through the Global Environment Centre as Project Executing Agency which was also the Regional Project Executing Agency of the APFP.

Objectives

1. To improve the capacity of selected ASEAN Member States for effective governance and protection of peatland forests through the development and implementation of National Action Plans for Peatlands (NAPPs) and the development of incentives through pilot activities at local level.
2. To strengthen regional cooperation for implementation of the ASEAN Peatland Management Strategy (2006-2020) to reduce peatland forest degradation, support the development of regional and international policies on sustainable peatland forest management and minimize peatland forest degradation and GHG emissions.

SEApeat Project Executing Agency and Country Implementing Agencies:

Project Executing Agency: Global Environment Centre	
COUNTRY COMPONENTS	PROJECT ASSOCIATES
Cambodia	Department of Wetlands and Coastal Zones, Ministry of Environment
Indonesia	Mitra Insani Foundation
Lao PDR	Ministry of Natural Resources and Environment
Malaysia	Global Environment Centre
Myanmar	Ministry of Environmental Conservation and Forestry / Forest Resource Environment Development and Conservation Association (FREDA)
Philippines	Biodiversity Management Bureau – Department of Environment and Natural Resources (BMB-DENR)
Thailand	Department of National Parks, Wildlife and Plants Conservation, Ministry of Natural Resources and Environment
Viet Nam	Center for Environment Science and Ecology (CESE)

COMBINED OUTCOMES

The combined projects had four outcomes:

OUTCOME 1:

Capacity and the institutional framework for sustainable peatland management in Southeast Asia strengthened

OUTCOME 2:

Reduced rate of degradation of peatlands in Southeast Asia

OUTCOME 3:

Integrated management and rehabilitation of peatlands initiated at targeted peatlands

OUTCOME 4:

Local communities and the private sector actively contributing to sustainable peatland management

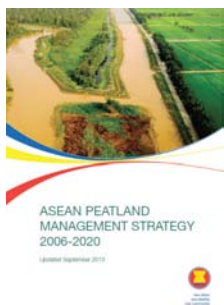
OUTCOME 1: CAPACITY AND INSTITUTIONAL FRAMEWORK FOR SUSTAINABLE PEATLAND MANAGEMENT IN SOUTHEAST ASIA STRENGTHENED

National institutional arrangements and mechanisms to protect peatlands at national level are the key to sustainable management of peatlands. These come in the form of Peatland Management Strategies, National Action Plans, land laws and provincial/municipal policies.

ACHIEVEMENT 1: ASEAN Peatland Management Strategy Reviewed and Updated

The ASEAN Peatland Management Strategy 2006-2020 (APMS) was first approved in 2006 to support the implementation of the ASEAN Peatland Management Initiative. It was planned that the document would be reviewed after five years.

The projects supported the promotion and review of the APMS. The APMS was reviewed in 2012 – 2013 with support from the APFP and SEApeat projects. The revision was endorsed by the Committee of Conference of Parties (COM) of the ASEAN Agreement on Transboundary Haze Pollution (AATHP) in Surabaya, October 2013.



As the Projects have been included in the agenda of ASEAN level meetings, the Ministers of Environment and Senior Officials at Technical Working Group (TWG)/ Ministerial Steering Committee (MSC) meetings have been updated on the progress of the Projects.

During the revision of the APMS, establishment of an ASEAN Task Force on Peatlands (ATFP) was approved. A preparatory meeting on the development of the Task Force was initiated in August 2014. The First Meeting of the ATFP was organised on 23 June 2015 in Manila, the Philippines with participation of representatives from all ten ASEAN Member States (AMS).

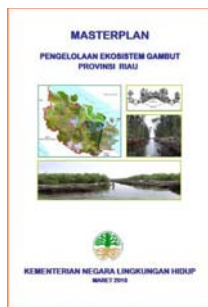
ACHIEVEMENT 2: National Action Plans for Peatlands (NAPP) Developed

National Action Plan on Peatlands (NAPPs) is one of the most important documents in sustainably managing peatlands in AMS. Most AMS have worked on their NAPPs and many are already in use.

Status of National Action Plans for Peatlands of all ASEAN Member States (as of August 2015)

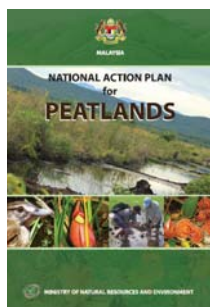
COUNTRY	STATUS	REMARKS
Indonesia	Completed in 2006 and revised in 2012.	Revised strategy published in November 2012. Key issues included in National Regulation on Protection and Management on Peatland Ecosystems (PP 71/2014).
Malaysia	Completed in 2010.	Endorsed by Cabinet January 2011 and being implemented.
Philippines	Completed in 2009.	Adopted as part of the Updated National Wetlands Action Plan for the Philippines Development Plan (2011-2016) and the NAPP was also included in the Fifth National Report to the Convention on Biological Diversity.
Viet Nam	Final Plan prepared.	Awaiting final government approval.
Brunei Darussalam	Plan finalised.	Plan approved by relevant agencies in 2015.
Cambodia	Peatland assessment underway.	Significant coastal peatlands identified. Further assessments needed to identify other peatland areas before plan preparation.
Lao PDR	Peatland assessment underway.	Consultation started in August 2012. Assessments conducted and identified peatlands scattered in central and southern regions of the country. Further assessments needed to identify all main peatlands and develop an action plan.
Myanmar	Peatland assessment underway.	NAPP planned after assessment is completed. Significant peatlands have been identified at more than seven sites in five provinces/states.
Singapore	Existing peatlands zoned within Natural Reserve.	Focus on supporting issues at regional level.
Thailand	Approved.	Approved by Sub-Committee for Wetlands Management of Thailand (SWMT) under the Ministry of Natural Resources and Environment in June 2015.

ACHIEVEMENT 3: Policies and Regulations Enhanced



In **Indonesia**, the National Regulation No. 71/2014 on the Protection and Management of Peatland Ecosystems in Indonesia was approved in September 2014 and the Ministry of Environment and Forestry has been working in 2015 on fine-tuning the terms and conditions for its implementation/enforcement. The Masterplans for Peatland Ecosystem Management in Riau (Sumatra) and West Kalimantan were produced.

These provinces have some of the largest peatland areas in the country. The Provincial Government of Riau and West Kalimantan have been working towards achieving objectives identified within the Masterplans. The Presidential Decree on the Reduction of Emission from Deforestation and Degradation of Forest and Peatlands was formulated in 2013 (Decree No. 62/2013).



In **Malaysia**, the National Action Plans for Peatland (NAPP) was finalized and adopted by the Malaysian Cabinet in January 2011. It has been translated into Malay and disseminated to various government agencies for its implementation. Status and progress on the NAPP implementation was reviewed in November 2013 by the Ministry of Natural Resources and Environment. The implementation plan

of the NAPP for 11th Malaysia Plan 2016-2020 is being finalised. Peatland issues have been included in the National Policy on Biological Diversity currently being revised by the Ministry of Natural Resources and Environment.

Two new local government ordinances for peatland protection in the **Philippines** were passed: (1) Municipality of San Francisco, Agusan del Sur - MO# 01-2013 ("Ordinance for the Protection of the Unique Stunted Peat Swamp Forest in the Barangays Caimpugan and New Visayas, all of San Francisco, Agusan del Sur"); and (2) Municipality of Talacogon, Agusan del Sur - MO# 203-2014 ("An Ordinance for the Protection of the Unique Stunted Peat Swamp Forest within the Municipal Jurisdiction of Talacogon, Agusan del Sur and Providing Funds Thereof"). Another similar ordinance for the establishment of Leyte Sab-a peatlands as local conservation areas and/or critical habitat has been drafted.

ACHIEVEMENT 4: Awareness Created at Local and Regional Levels

At regional level, training and awareness programmes were held to upscale good peatland management and strengthen capacity for conservation. The programmes designed were to encourage knowledge sharing and learning across the region. There were more than 900 participations from all ten AMS in workshops and training programmes under the projects.

The series of technical workshops, meetings, training and peer learning programmes that were held over the project periods focused on: i) Development of the ASEAN Peatland Fire Prediction and Warning System in July 2010, March 2012 and October 2013; ii) Best Management Practices (BMPs) for Peatlands in June 2011, May 2012 and June 2013; iii) Sustainable Forestry Practices and Integrated Management Plans for Peatlands in June and July 2012; iv) Training of Trainers on identification of peatland areas in February 2011 and training on Geographic Information System (GIS) in September 2012; and v) Options for Carbon Financing in October 2010 and Incentive Options for Peatland Management in November 2011.

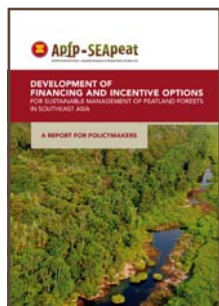
There were at least 35 awareness materials produced in seven languages for reference, sharing and learning purposes. These can be downloaded from the dedicated website.

As part of the capacity building effort, the Government of Selangor State, Malaysia launched a Centre of Excellence for Peatland Awareness and Conservation at Forest Compartment No. 73 of the Raja Musa Forest Reserve in June 2015. The Centre acts as an education centre for interest groups who would like to learn more on peatland conservation. In future the centre will serve as a research base for students and researchers.





ACHIEVEMENT 5: Innovative Financial Mechanisms Developed



The Projects assisted AMS in the development of a combined portfolio of projects for the ASEAN Programme for Sustainable Management of Peatland Ecosystems 2014-2020 (APSMPE) worth approximately USD\$240 million. The Governments of AMS indicated their commitment to support the APSMPE as well as commitments from European Union, GIZ and potential partners from private sector. The APSMPE was endorsed by all Environment Ministers in September 2013.

A report to aid policymakers entitled “Development of Financing and Incentive Options for Sustainable Management of Peatland Forests in Southeast Asia” was produced in 2013 with inputs and comments from the AMS.

There has been a major increase in financing for peatland work from developed countries and involvement of the private sector in conserving peatlands in Southeast Asia. Financial support from developed countries (e.g. Norway, USA, Germany, Korea and Australia) aimed to rehabilitate the degraded peatland areas as well as reduce further degradation and GHG emission from the peatlands. The innovative financial mechanism developed by the private sector such as plantation companies for local communities and lessons learned through peer learning programmes are described under Outcome 4.

ACHIEVEMENT 1: New Peatlands Identified

Before the projects started in 2010, there were only 5,000ha of documented peatlands in the **Philippines**. By 2014, the peatland area identified increased to 20,000ha, thanks to project support and technical assistance.

PEATLANDS IN COASTAL AREA IN KOH KONG PROVINCE, CAMBODIA

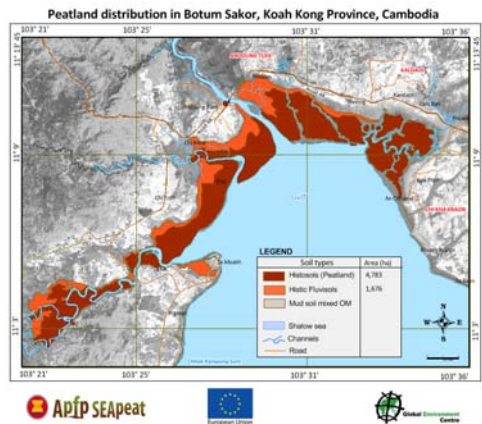
Legend:

Soil types	Area (km ²)
Peatlands	4,312
Upland Peatlands	4,312
Pacific Alluvials	4,312
Tidal mud flat	4,312
Other soils	4,312

Water body (River, sea)

Scale: 0 25 km

Coordinates: 102° 40' E, 102° 50' E, 103° 00' E, 103° 10' E, 103° 20' E; 10° 30' N, 10° 40' N, 10° 50' N



New peatland areas were also found in **Lao PDR**, such as this peatland lake (below) in Champasak Province. Approximately 670ha of peatlands have been confirmed, which include 94ha of floating peatland with peat mat range of 0.4 - 0.91m at Ban Dong, Naxaythong, Vientiane Province; approximately 8 hectares was found in Ban Bounghphao, Pholhong with 3.6m peat layer underneath a 0.74m thick clay layer; and 570 hectare of peatlands in Champasak Province.



In **Myanmar**, peatland assessments were undertaken in 13 districts in five regions/states. Five significant peatland sites identified including: a peat swamp forest on Kauk Ye Island and more than 11,000 ha of peatlands were identified in Inle Lake, Heho Basin and Htoo Lake Region. Much of the peat areas found in Inle Lake are floating peat, some of which have been used by locals to grow tomatoes and other vegetables. A spring mound peatland was discovered to the northwest of Inle lake the first time this rare peatland type has been found in Southeast Asia. The peat swamp forest on Kauk Ye is notable as this is the first confirmed peatland forest in Myanmar. In 2015, 2ha of untouched peatland forest with 4m peat depth was discovered in Nga Yant Chaung Village in Mandalay State. It is being protected by the local community.



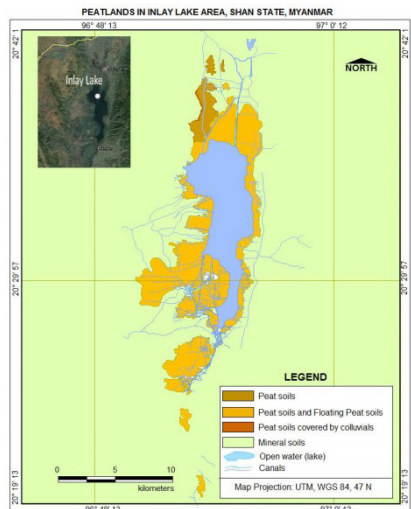
Above: Rare freshwater crab breeding in burrows in the spring mound peatland.

Right: Shallow well on the spring mound peatland providing drinking water to neighbouring Taung Bo Gyi Village.



Below: Forested peat area in Kauk Ye.

Below right: Map shows 9500ha of peatlands around Inle Lake.



ACHIEVEMENT 2: Status of Peatlands Enhanced

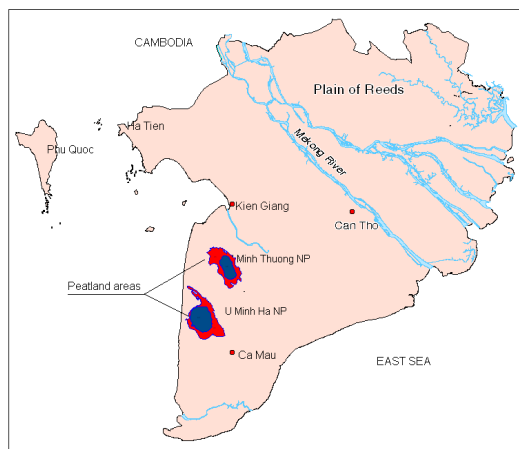
Some of the peatland areas were designated as national, regional and international important sites during and after implementation of the projects.

In **Indonesia**, tighter national regulations have been put in place to protect peatland areas from further development. A Moratorium for new licenses for plantations on peatlands which was developed in 2011 was extended twice in 2013 and 2015, to protect and conserve remaining undisturbed peatland forests. In September 2014 a new Government Regulation (PP71/2014) was adopted. It requires that all peatlands in the country are managed according to hydrological units and that at least 30% of each peat dome be set aside as a conservation area.

In Malaysia, conservation measures were significantly enhanced in the 81,000ha North Selangor Peat Swamp Forest with more than 45,000ha being set aside for conservation. Maludam National Park in Sarawak, Malaysia is being nominated for ASEAN Heritage Park status.

The Caimpugan Peatlands, located within Agusan Marsh is being proposed to be part of the Agusan Wildlife Sanctuary Expansion and in the interim is protected under two new local municipal ordinances. The Leyte Sab-a Basin is also being proposed as a critical habitat for protection in the **Philippines**.

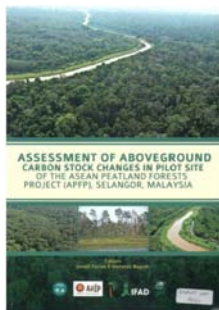
The project pilot peatland site in **Viet Nam**, the 8,000ha U Minh Thuong National Park (UMTNP) was declared as an ASEAN Heritage Park in September 2012 and was also designated as a Ramsar site in April 2015. Some of the practices were replicated to U Minh Ha National Park which is now being proposed as the next ASEAN Heritage Park in the country.



Location of U Minh Thuong and U Minh Ha National Parks in Southeast Viet Nam.



ACHIEVEMENT 3: Studies on Climate Change in Peatland Undertaken



Through the projects, carbon related studies were undertaken in some of the AMS. The studies include: i) carbon emission from agriculture on peatland and degraded peatland; ii) assessment of above ground carbon stock changes in the project site; iii) impact of water management on emissions; iv) carbon storage of peatland and its role in greenhouse gas mitigation and v) initial

assessment on enhancement of carbon pools, storage and stocks that can be achieved by various forest management measures.

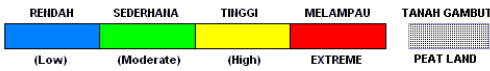
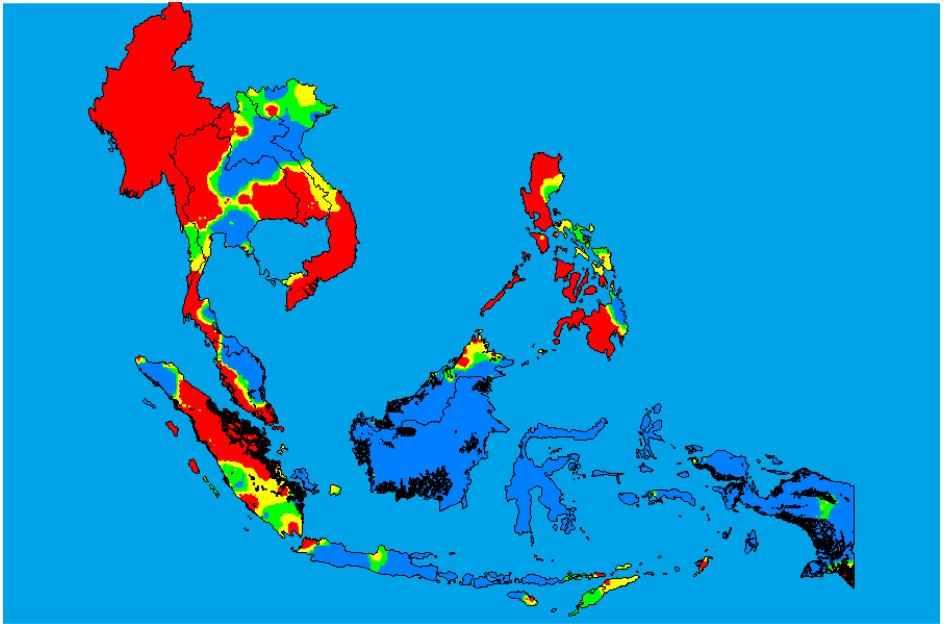
A report on “Peatlands and Climate Change in Southeast Asia” which discussed adaptation issues was published and disseminated in 2013.

ACHIEVEMENT 4: Peatland Fire Prediction and Warning Enhanced

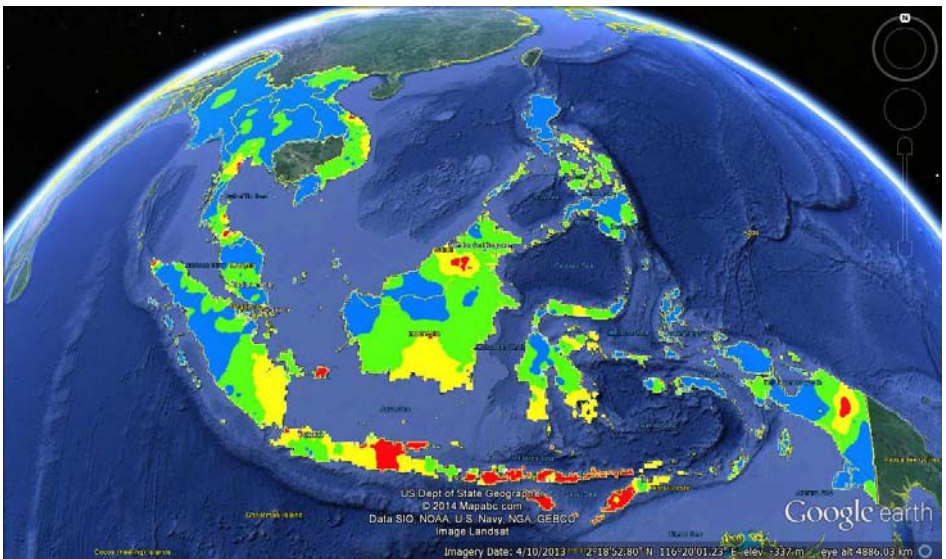
Fire is one of the main reasons for peatland degradation in Southeast Asia. A peatland fire prediction and warning system was developed through the projects. This included the use of satellite technology to detect hotspots, weather stations to collect weather data e.g. rainfall, temperature, humidity, wind speed and so on. Data from the weather stations is used to analyse ground conditions and provide fire risk indices and codes through the Fire Danger Rating System (FDRS).

The Malaysian Meteorological Department (MMD) has been running FDRS since 2003 but the projects have worked to enhance the system and usage of the information. A peatland layer was incorporated into the FDRS for easy reference and to guide land managers to determine the probability of fire due to weather conditions. The land managers will then take necessary preventive measures such as allocating resources, facilitate patrolling and warning actions and lastly, prepare for firefighting.

The MMD has also made the forecast of up-to-three days available for both ASEAN and Malaysia's indices and codes. The ASEAN Member States have been more active in using and promoting the FDRS. Indonesia has developed up-to-seven day forecasts for fire danger. The page can be found at <http://www.met.gov.my/web/metmalaysia/climate/fdrs/southeastasia> and [http://www.bmkg.go.id/BMKG_Pusat/Informasi_Cuaca/Sistem Kebakaran Hutan. bmkg?w=4&u=1&p=](http://www.bmkg.go.id/BMKG_Pusat/Informasi_Cuaca/Sistem_Kebakaran_Hutan_bmkg?w=4&u=1&p=).



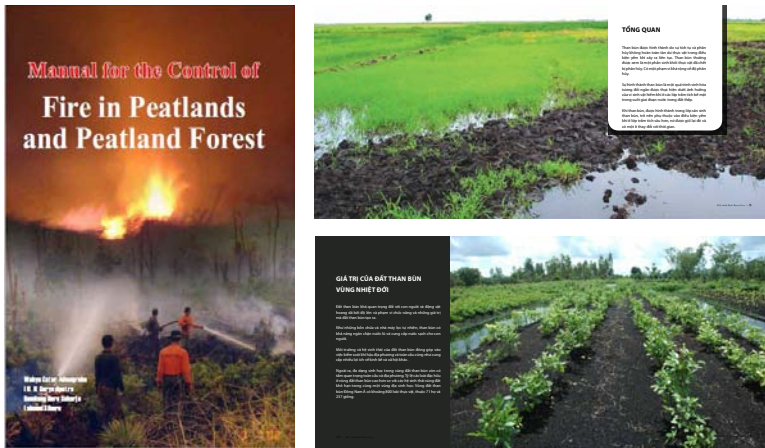
ASEAN



The ASEAN Specialised Meteorological Centre in Singapore has been monitoring hotspot information for the region. Daily readings, maps and satellite images are updated at www.asmc.asean.org.

ACHIEVEMENT 5: Fire Prevention Schemes Adopted At Local Level

Significant work through socialisation and consultation sessions were held to promote and encourage better fire prevention and control measures at local level. Guidelines for the Implementation of Controlled Burning Practices and Guidelines for the Implementation of the ASEAN Policy on Zero Burning were translated into Indonesian as Indonesia has the largest area of tropical peatlands in Southeast Asia. A Manual on Peatland Fire Control was reproduced and distributed to the stakeholders. A report on Integrated Fire and Water Management in the Peatlands of UMTNP, Viet Nam was also produced and disseminated. There has been no fire recorded in UMTNP since the implementation of the projects.



Specifically in **Indonesia**, the project pilot site – Harapan Jaya village in Riau Province developed a set of Village Regulations to prevent and reduce the incidence of fire outbreaks. The Village Regulations imposes penalties to villagers who start fires that damage another villager’s smallholding. The penalty rate is IDR 300,000 (US\$35) per oil palm and IDR 100,000 (US\$10) per rubber tree. This has been proven to be effective in reducing the number of uncontrolled fires in the area.

Fire risk areas in the North Selangor Peat Swamp Forest, Malaysia have been identified. Abandoned canals and drains in peatland areas have been blocked to raise water levels for fire prevention and control. Cascades of blocks were built on long drainage canals to regulate water levels according to the sloping peat profile. A clay bund was constructed in partnership with a state government-linked company to stop water draining out from an area which was badly burned in 2012. After the bund was built, water was retained inside the forest reserve, helping the forest to regenerate quickly. By the end of 2013, the forest showed very good regrowth and regeneration.

OUTCOME 3: INTEGRATED MANAGEMENT AND REHABILITATION OF PEATLANDS INITIATED AT TARGETED PEATLANDS

ACHIEVEMENT 1: Demonstration Sites on Best Management Practices Nominated

A total of eighteen (18) peatland sites in seven ASEAN Member States were nominated as demonstration sites with best management practices that could be showcased to peatland stakeholders. The best management practices included appropriate integrated agroforestry activities by the local community, rehabilitation efforts on degraded peatlands, canal blocking to raise water tables, ecotourism and others.

The finding of unique coastal mangrove peatland in Botum Sakor National Park and Peam Krasop Wildlife Sanctuary, Koh Kong Province, **Cambodia** has made them a demonstration site for management of mangrove peatlands. Community groups living in and around the peatland areas have shown interest to learn about the value and function of peatlands. The existing integrated management plan of the Wildlife Sanctuary allows the local community to harvest and utilize natural resources within community zones for subsistence.

Five locations in **Indonesia** were designated, namely Rasau Jaya and Danau Sentarum National Park in West Kalimantan, Harapan Jaya and Sepahat in Riau, and Sebangau National Park in Central Kalimantan. The community groups living in and adjacent to the sites have been trained to apply sustainable management practices to cultivate the degraded peatlands. Danau Sentarum National Park and Sebangau National Park also serve as base camps for the research institutions on the rich biodiversity and unique ecosystems.

In **Malaysia**, four sites were established as demonstration sites – North Selangor Peat Swamp Forest, Southeast Pahang Peat Swamp Forest, Klias Peat Swamp Forest in Sabah and Loagan Bunut National Park in Sarawak. Rehabilitation efforts include hydrological restoration and enrichment plantings undertaken by relevant stakeholders to increase water table and vegetation in the areas. Reduced Impact Logging (RIL) practice is required for logging operations in the Southeast Pahang Peat Swamp Forest.

Inle Lake, one of the ASEAN Heritage Parks with about 9,100ha of peatlands is located between two limestone mountain ranges over 5,000 feet (1,500m) and Nyaung Shwe Basin on **Myanmar's** Shan Plateau. The Lake combines rich historic and cultural values with significant nature functions and environmental services. Floating peat mats are found around the Lake and community groups have been using that as planting medium for agriculture. The Shan Plateau and Nyaung Shwe Basin is high in scenic value and the nature beauty of the Lake attracts many tourists annually, contributing to the development of tourism in the area.

Caimpugan Peatlands in Agusan Marsh and Leyte Sab-a Basin were nominated in the **Philippines**. Community groups living in and adjacent to the areas were trained on best management practices such as applying sorjan farming and floating gardens to plant vegetables for their consumption. The communities also were sent for training programmes on ecotourism. Agusan Marsh Wildlife Sanctuary within the Caimpugan Peatlands is an ecotourism site nature with leisure activities for local and international visitors.

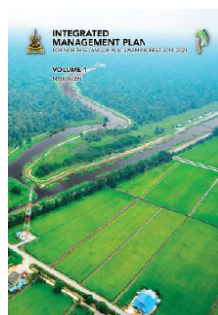
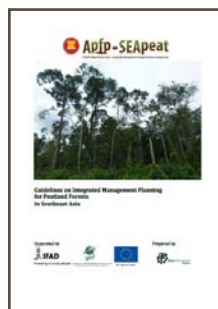
In Narathiwat Province, **Thailand** based the Phru To Daeng peat swamp where the HRH Princess Sirindhorn Wildlife Sanctuary and Princess Sirindhorn Peatswamp Forest Research and Nature Study Center is located, is a famous ecotourism site and an education hub for its invaluable biodiversity and ecosystem complexity. The peatland areas in Thale Noi of Phattalung and Khuan Khreng of Nakhon Si Thammarat Province were designated as a non-hunting area in order to conserve and protect waterbirds. Community groups living adjacent to the non-hunting areas were trained to sustainably manage peatland resources with appropriate fishing techniques and harvest of non-timber forest products for their livelihood.

Peatland areas within the U Minh region in **Viet Nam** – U Minh Thuong National Park and U Minh Ha National Park were both established as demonstration sites with their success on promoting buffer zones with alternative livelihood options.

ACHIEVEMENT 2: Integrated Management Strategy and Plan Developed

At regional level, several guidelines on integrated management on peatlands were produced. The Guidelines on Integrated Management Planning for Peatland Forests in Southeast Asia, was prepared covering the whole region, with case studies from selected AMS on management practices which have been undertaken by peatland stakeholders.

In **Malaysia**, the Integrated Management Plan of North Selangor Peat Swamp Forest (IMP-NSPSF) for 2014-2023 was completed with three new sub-plans i.e. Buffer Zone Management Plan, Cooperative Fire Management Plan and Rehabilitation Plan for the entire 81,304ha land. The updated IMP-NSPSF was approved by the Selangor State Government in December 2014.



Fourteen hectares of degraded peatlands in Agusan Marsh and Leyte Sab-a, the **Philippines** was planted with indigenous *Lanipao* (*Terminalia copelandii*) and *Tiga* (*Tristaniopsis micrantha*). An additional 80ha of degraded peatlands in Leyte Sab-a basin and 200ha in Agusan Marsh was included in the National Greening (Reforestation) Programme. The area was planted with *bangkal*, *putat* and *mambog* trees. Canal blocking was explored in Sta. Fe, Leyte with plans for future implementation.

Peatland management and planning in Viet Nam included: i) Plans to support the management of peatlands at U Minh Peatland Region; ii) Five-year Action Plans on Nature Conservation for U Minh Thuong National Park (UMTNP) and U Minh Ha National Park (UMHNP) and their respective buffer zones; iii) Plan for water management at UMTNP; iv) Site Management Plan for sustainable use and rehabilitation of UMTNP; and v) Plan for sustainable livelihoods development for communities in the buffer zone. The maps below illustrate the improvement in vegetative cover once water management was improved.



2006



2009



2012

OUTCOME 4: LOCAL COMMUNITIES AND THE PRIVATE SECTOR ACTIVELY CONTRIBUTING TO SUSTAINABLE PEATLAND MANAGEMENT

Among the issues handled in collaboration with the plantation sector included: i) efforts to prevent fires; ii) promote good water management; iii) water retention along collection drains; and iv) other best management practices for oil palm plantations on peatlands.

ACHIEVEMENT 1: Fire and Smoke Haze Prevention Partnership Established

A series of consultation meetings was organised with major plantation companies in Malaysia, Singapore and Indonesia since 2013. The companies indicated interest on enhancing fire and smoke haze prevention work within and around the plantations. The partnership was encouraging with participation of the local government and community for sustainable development. The companies also indicated their support for the ASEAN Programme on Sustainable Management of Peatland Ecosystems.

In **Indonesia**, forest and oil palm plantation companies supported the implementation of project activities that comply with Provincial Masterplans on peatlands and Governors' Instruction especially on forest and peat fire prevention, suppression and control involving the local community fire brigade (Masyarakat Peduli Api, MPA).

Corporate partners in the banking industry had consultation sessions with the Ministry of Environment (and Forestry) of Indonesia to discuss green initiatives that considered additional terms and conditions for smallholders who apply for development loans to operate oil palm plantations on peatlands. This effort complied with the national moratorium on conserving primary forest and peatland forests from further degradation.

Several companies involved in tyre manufacturing, oil palm plantations and banking services contributed towards peatland conservation efforts in **Malaysia**. These companies fulfilled their Corporate Social Responsibility by working in partnership with the projects in rehabilitation activities on degraded peatlands such as replanting and blocking drainage channels.

ACHIEVEMENT 2: Specific Collaboration Towards Sustainable Palm Oil Enhanced

The projects were represented at a series of Roundtable on Sustainable Palm Oil (RSPO) meetings and workshops. Inputs and comments were provided for the development of two manuals i.e. "Manual on Best Management Practices for Existing Oil Palm Cultivation on Peat" and "Manual on BMPs for Management and Rehabilitation of Natural Vegetation Associated With Oil Palm Cultivation on Peat", and development of four Summary Reports for these two manuals in English and Indonesian. The Manuals and Summary Reports were widely distributed to RSPO members within the region.



ACHIEVEMENT 3: Community Livelihood and Peatland Management Enhanced

In **Indonesia**, incentive options were offered to the community in Danau Sentarum National Park, West Kalimantan were offered. One of the options was to diversify the fish products traditionally made and sold in the area.

Harapan Jaya village in Riau also embarked on a pilot project which reared cattle in purpose-built barns. The cattle are fed with palm leaves and the waste is used for biogas production. The leftover sludge is used as fertilizer. This system is hoped to stop the reliance on ash (from burning on peatlands) as soil enhancer and fertilizer.





On a wider scale, fire suppression by local community groups has been enhanced in both Indonesia and Malaysia. Communities are better equipped and trained to control small fires before they rage out of control. The enhancement of local capacity and incentives for prevention, zero burning and control reduced the incidence of fire. Alternative land clearing and development options were also identified to discourage burning on peatlands.

In **Malaysia**, a seedling buy-back system was introduced at nurseries set up by the local communities living adjacent to the North Selangor Peat Swamp Forest. In this system, the project assisted locals with the initial nursery set up. They collected and raised seedlings which were then bought by agencies for tree planting activities at the rehabilitation site.



In 2012, the Friends of North Selangor Peat Swamp Forest, the first registered Community Based Organisation (CBO) on peatlands formed in Malaysia. Members are involved in the forest fire prevention, fire suppression, participated in awareness programmes, tree planting and eco-tourism activities.

The local government officials and local communities from the **Philippines** who attended the peer learning programmes to Central Kalimantan, Indonesia and Nakhon Si Thammarat, Thailand replicated the integrated good practices learned in their communities. The communities with the assistance from Local Government promoted the Buying Living Tree Scheme which then integrated to the National Greening Programme; established floating gardens and applied Sorjan farming technique to cultivate degraded peatland with increased agricultural yields.



In **Viet Nam**, a Green Contract System was introduced for communities living in the buffer zone of the U Minh Thuong and U Minh Ha National Parks. Households were invited to submit a proposal for a livelihood improvement project. Of the submissions, 81 households were selected and were provided a grant of US\$750/household from the project. After eighteen months of implementation, more than 85% of the households produced more income through the new integrated agricultural activities. According to the most recent evaluation undertaken in the second quarter of 2015, household incomes had increased between EUR 420 to EUR 2,055 each.

This community livelihood development programme helped the conservation of the Parks by reducing poaching and illegal collection of plants in the parks.



PROJECT MANAGEMENT AND SUSTAINABILITY

To ensure the smooth running of the project, bi-annual project management meetings, annual steering committee and coordination meetings were organised.

The sustainability of the project was much supported by: i) Integration of the project into ASEAN structures and mechanisms; ii) Revision/enhancement of the ASEAN Peatland Management Strategy 2006-2020 (APMS); iii) Establishment of the ASEAN Programme on Sustainable Management of Peatland Ecosystems 2014-2020 (APSMPE); iv) Establishment of ASEAN Task Force on Peatlands; v) Integration of peatland conservation goals into national structures and mechanisms; vi) National Action Plans on Peatlands (NAPPs); vii) Establishment of national regulations and programmes on peatlands; viii) Establishment of National Peatland Working Groups and Steering Committees; ix) Integration to national programmes on peatlands; x) Partnerships developed with regional and national NGOs and institutes; xi) Partnerships with the private sector (mainly oil palm and pulp & paper plantations); xii) Partnerships with local governments and communities at pilot sites; and xiii) Securing commitments to finance future programmes from governments, international partners and private sector.

MOVING FORWARD

Following the completion of both the APFP and SEApeat projects by 2015, a scaled-up programme which builds on the success of the current projects is required to continue the long journey towards sustainable peatland management in Southeast Asia.

This was pursued based on the positive recommendations from APFP Mid Term Review in 2012 and Terminal Evaluation Review in 2014, as well as the SEApeat Results Oriented Monitoring Missions in 2012-2013. Hence, ASEAN explored options for scaling up activities.

The Ministerial Level COP on AATHP in September 2013 endorsed the development of a new programme towards sustainable peatland management and control of transboundary haze. Through meetings in September and December 2013, April and August 2014, an ASEAN Programme on Sustainable Management for Peatland Ecosystems (2014 – 2020, APSMPE) was developed. The AMS identified prioritized proposed projects of approximately USD\$240 million for the Programme. Further discussions were held in November 2014, March and June 2015 to fine-tune and further prioritise the projects.

The aims of the APSMPE

- i) To realize fully the ultimate goals of the APMS 2006-2020, i.e. to promote sustainable management of peatlands in the ASEAN region;
- ii) Through enhanced stakeholder collaboration to support and sustain local livelihoods;
- iii) Reduce the risk of fire and associated haze; and
- iv) Contribute to global environmental management.

APSMPE Six Targets by 2020

Below are the proposed targets for the ASEAN Programme on Sustainable Management of Peatland Ecosystems which was approved by ASEAN Environment Ministers in September 2013.

1. All peatland areas identified and inventorised;
2. Zero-burning uniformly practiced to prevent any uncontrolled wildfires on peatlands, and eliminate any widespread smoke haze;
3. Fire prone sites rehabilitated by focusing on root causes of fire;
4. Peatlands sustainably managed, sustainable livelihoods enhanced, and sustainable economic use mainstreamed;
5. Peatlands conserved to contribute to significantly reduced emissions of greenhouse gases and increased peatland biodiversity in the region; and
6. APMS and NAPPs implemented; national and regional capacity enhanced.

Indonesia has secured a peatland project using the remaining GEF-5 fund and has also submitted a Project Identification Form (PIF) for the System for Transparent Allocation of Resources (STAR) for GEF-6. Malaysia has also submitted a PIF for the STAR for GEF-6 to scale-up activities on good management practices to other states. A sub-regional PIF for GEF-6 was developed and submitted for the Mekong countries i.e. Cambodia, Lao PDR and Myanmar.

The European Union – ASEAN Cooperation on Climate Related Programme (2014 – 2020) has committed an indicative amount of EUR20 million to support the APSMPE. The EU appointed an independent consultant to analyse project suitability and prepare a project document for the peatland conservation for the Southeast Asia. The project entitled “Sustainable Use of Peatland and Haze Mitigation in ASEAN (SUPA)” was proposed and submitted to the European Union for internal processing.

The Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), Germany through "*Deutsche Gesellschaft für Internationale Zusammenarbeit*" (GIZ) has indicated that the German Government will support the APSMPE with budget of EUR4 million by providing technical assistance in the form of advisory services and targeted capacity building. A proposal on "*Strengthening Regional Experiences on Sustainable Peatland Management in ASEAN (ASEAN REPEAT)*" was prepared and is undergoing internal and the country's revision.

Other proposals are being prepared to explore support from other resources to assist the region in conserving and protecting the peatland ecosystems particularly on handling peat fires during prolonged dry spells.



ASEAN Peatland Forests Project | www.aseanpeat.net

ASEAN Peatland Forests Project (APFP)

Supported by Global Environment Facility through the International Fund for Agricultural Development (IFAD).



Implemented by ASEAN Secretariat and ASEAN Member States.

National: Ministry of Environment, Indonesia; Forestry Department of Peninsular Malaysia, Malaysia; Biodiversity Management Bureau – Department of Environment and Natural Resources (BMB-DENR), Philippines; Viet Nam Environment Administration, Viet Nam. Regional: Global Environment Centre.



and

SEApeat

Sustainable Management of Peatland Forests in Southeast Asia

Sustainable Management of Peatland Forests in Southeast Asia (SEApeat Project)

Supported by the European Union.



European Union

Implemented by Global Environment Centre and the Project Associates.

Department of Wetlands and Coastal Zones, Ministry of Environment, Cambodia; Mitra Insani Foundation, Indonesia; Ministry of Natural Resources and Environment, Lao PDR; Ministry of Environmental Conservation and Forestry / Forest Resource Environment Development and Conservation Association (FREDA), Myanmar; Biodiversity Management Bureau – Department of Environment and Natural Resources (BMB-DENR), Philippines; Department of National Parks, Wildlife and Plants Conservation, Ministry of Natural Resources and Environment, Thailand; Center for Environment Science and Ecology (CESE), Viet Nam.





FOR ENQUIRIES PLEASE CONTACT:

The Environment Division The ASEAN Secretariat

70A, Jalan Sisingamaraja
Jakarta 12110, Indonesia

Phone: (62 21) 724 3372/ 726 2991

Fax: (62 21) 739 8234/ 724 3504

Email: natalia@asean.org

Global Environment Centre

2nd Floor Wisma Hing,
No. 78, Jalan SS2/72,
47300 Petaling Jaya,
Selangor, Malaysia.

Tel: +603 7957 2007

Fax: +603 7957 7003

Email: outreach@gec.org.my

Web: www.gec.org.my;
www.aseanpeat.net