EXECUTIVE SUMMARY
OF THE FINAL REVIEW OF THE ASEAN PEATLAND MANAGEMENT STRATEGY 2006-2020

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ASEAN: A Community of Opportunities for All

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Photo credit: Global Environment Centre.

EXECUTIVE SUMMARY OF THE FINAL REVIEW OF THE ASEAN PEATLAND MANAGEMENT STRATEGY (APMS) 2006-2020

The ASEAN Secretariat
Jakarta

1. SUMMARY

The objective of the Final Review of the ASEAN Peatland Management Strategy (APMS) 2006-2020 was to provide a consolidated assessment at national and regional levels on the implementation of the APMS and achievements of the targets; and generate information and learning to inform the formulation of the next strategy. The review was undertaken by the Global Environment Centre (GEC) in close consultation with the ASEAN Member States (AMS), ASEAN Secretariat (ASEC), and relevant stakeholders.

The review process began in March 2020, with a plan for a series of regional and country level meetings to seek stakeholder feedback and input. However due to Covid-19 pandemic, all travel plans were cancelled and revised approach using virtual meetings and remote interviews was implemented. A working paper and questionnaires were prepared and circulated to National Focal Points (NFPs) of the ASEAN Task Force on Peatlands (ATFP). A specific Task Force of the APMS Review was established to work closely with the review team. The final review was undertaken through desk study, questionnaire, focus group discussions (FGDs) and verification interviews with relevant stakeholders including experts in peatland management in the region. It also involved literature review and meetings with ASEC and the Task Force on the APMS Review/ATFP, drew upon relevant AMS reports to the ASEAN meetings; experts' inputs and also harnessed experiences from previous ASEAN peatland programmes and related ASEAN processes.

The above process combined with the expertise of the review team members were used to develop a matrix of the progress of implementation of the APMS, according to the 13 Focal Areas, 25 Operational Objectives and 98 Actions of the APMS. Indicative level of achievement was estimated based on feedback and discussions with the APMS focal person and/or ATFP NFPs as well as other stakeholders, literature analysis and FGDs as well as the expert judgement of the review team and feedback from the AMS. An in depth assessment and analysis of progress against the 98 Actions specified in the APMS is summarised and presented in Table 1.

Table 1: Summary of scoring for APMS implementation against Focal Areas

Focal Areas	Started	Ongoing/ continuous	Geographic Scope	Progress Score
1. Inventory and Assessment	100 %	100 %	7 (5-8)	70 %
2. Research	100 %	100 %	6 (5-7)	63 %
3. Awareness and Capacity Building	100 %	100 %	8 (5-10)	76 %
4. Information Sharing	100 %	100 %	7 (6-8)	77 %
5. Policies and Legislation	100 %	100 %	7 (7-8)	70 %
6. Fire Prevention, Control and Monitoring	100 %	100 %	5 (4-6)	60 %
7. Conservation of Peatland Biodiversity	100 %	100 %	8 (7-9)	69 %
8. Integrated Management of Peatlands	100 %	100 %	6 (3-8)	61 %
9. Promotion of Best Management Practices of Peatlands	100 %	100 %	7 (5-9)	70 %
10. Restoration and Rehabilitation	100 %	100 %	5 (4-7)	65 %
11. Peatland and Climate Change	100 %	87 %	3 (1-6)	42 %
12. Regional Cooperation	100 %	100 %	8 (5-10)	73 %
13. Financing of the Implementation of Strategy	100 %	100 %	4 (2-7)	45 %
GRAND TOTAL	**100 %**	**99 %**	**7**	**69 %**

** Notes: Score 1-10 (Geographic scope) based on average number of AMS undertaking activity (Range is given in brackets for number of countries implementing each of the separate actions within each focal area). Figures are average for all actions related to that Focal Area.*

2. INTRODUCTION

The final report of the Final Review of the APMS was presented to the Committee under the Conference of the Parties to the ASEAN Agreement on Transboundary Haze Pollution (COM-AATHP) on 28 December 2020 with endorsement of the report on 11 January 2021 via ad-referendum*. This summary report was prepared as a policy brief to provide key summary from the main report to be used as reference by AMS and stakeholders including Dialogue and Development Partners and other relevant organisations, as well as to encourage further support and understanding on the APMS among the stakeholders.

APMS Goal and Objectives

The goal of the APMS is to: ***Promote sustainable management of peatlands in the ASEAN region through collective actions and enhanced cooperation to support and sustain local livelihoods, reduce risk of fire and associated haze and contribute to global environmental management***.

** A further revised Final Report incorporated inputs provided by Thailand on 30 June 2021 at the Sixth Meeting of the ATFP was endorsed by COM via ad-referendum on 4 August 2021. The COM also endorsed to publish the Report.*

There are four General Objectives to the APMS:

General Objective 1: Enhance Awareness and Capacity on Peatlands;

General Objective 2: Address Transboundary Haze Pollution and Environmental Degradation;

General Objective 3: Promote Sustainable Management of Peatlands; and

General Objective 4: Promote Regional Cooperation.

Peatland in ASEAN

The total area of peatlands in Southeast Asia is estimated as 23 million hectare (ha), which is approximately 40% of the world's known tropical peatlands and roughly 6% of the entire extent of global peatland resource. The majority of the peatlands of Southeast Asia occurs in Indonesia, which has over 80% of total peatland area in the region. Other major peatland areas are found in Malaysia, Brunei Darussalam and Thailand, while Viet Nam, Philippines, Cambodia, Lao PDR and Myanmar have smaller areas of peatlands (Figure 1).

Figure 1: Peatlands in Southeast Asia

AMS	Peatland area (ha)
Indonesia	20,200,000
Malaysia	2,560,341
Brunei Darussalam	90,900
Thailand	64,555
Viet Nam	24,000
Philippines	20,188
Myanmar	11,233
Cambodia	9,850
Lao PDR	1,000
TOTAL	**22,982,067**

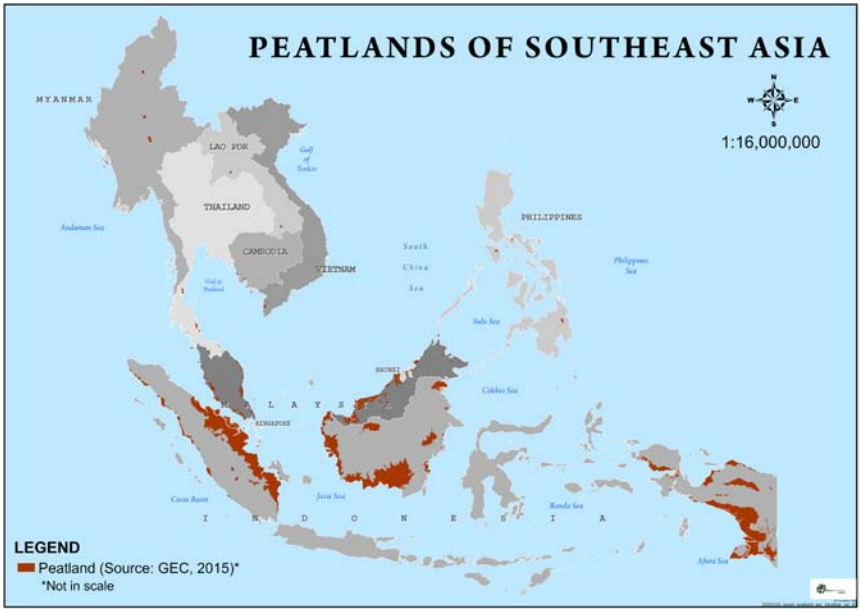
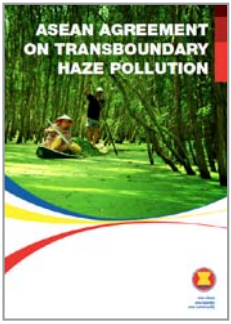


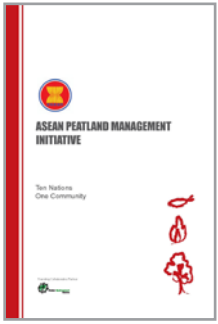
Table 2: Characteristics, Management Issues and Status of Peatlands

Peatland Characteristics and Values	Management Issues	Status of Peatlands
• Carbon sequestration and storage; • Biodiversity conservation; • Water storage and supply; • Flood control and prevention of saline intrusion; • Timber and non-timber forest products (NTFPs); • Education and research; and • Recreation and tourism	• Peatland fire and transboundary haze pollution; • Over-exploitation of peatland and its resources; • Loss of biodiversity; • Land conversion of peatlands for the development of plantations, agriculture and settlement; • Drainage and subsidence; • Floods; • Greenhouse Gas (GHG) emissions; • Spreading of invasive alien species and diseases; and • Small-scale community livelihood such as collecting medicinal plants, harvesting non-wood products, and farming activities.	• An assessment of 15 million ha of peatlands in the south of ASEAN (Sumatra, Borneo and Peninsular Malaysia) in 2015 indicated that only 996,000 ha (6.4%) remained as intact peat swamp forest, 3.6 million ha (22%) was degraded forest. • This represented a decline of 41% in the area of forested peatlands since 2007 and 76% decline since 1990. • An estimated of 7.8 million ha (50%) was under agriculture and plantations, while a further 3 million ha (20.2%) were open or flooded peatlands, shrub and secondary forest.

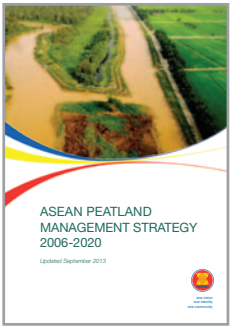
Policy Framework to Address Peatland Issues in ASEAN



ASEAN Agreement on Transboundary Haze Pollution (AATHP) is the first regional arrangement in the world that binds a group of contiguous states to tackle transboundary haze pollution resulting from land and forest fires. It has also been considered as a global role model for the tackling of transboundary issues.



ASEAN Peatland Management Initiative (APMI) provides the mechanism and framework for cooperation, contains objectives and principles, and includes a broad range of activities related to capacity building, fire prevention, national-level activities, regional cooperation and initial work plan for 2003-2005.



ASEAN Peatland Management Strategy 2006-2020 (APMS) was developed by AMS to guide actions to support management of peatlands in the region in the period of 2006-2020.

ASEAN Programme on Sustainable Management of Peatland Ecosystems 2014-2020 (APSMPE) was established to support collaboration among various stakeholders (including government, private sector, communities and civil society) in the ASEAN region to achieve the goal of the APMS.

3. APMS REVIEW PROCESS:

Task Force for APMS Review established in March 2020

Distributed questionnaire to NFP AMS and stakeholders since March 2020; regular follow-up and communication; literature and AMS report review

FGD with Indonesia, Malaysia & Philippines peatland-related agencies in July-August 2020

First Task Force meeting on 30 July 2020 to discuss preliminary findings of APMS Review

Distributed questionnaire to ASEAN Dialogue and Development Partners in August 2020

Second Task Force meeting on 28 October 2020 to discuss draft final report of the Review

Presented to and adopted by ATFP on 1 December 2020

Special briefing to COM-AATHP on 28 December 2020

Final Report endorsed by COM-AATHP via ad-referendum on 11 January 2021

Review of Literature, Reports and Publications

A total of 1,680 papers, reports and publications related to peatlands at national, regional and international levels have been identified and classified according to different key topics namely peatland management, peatland fire management, development on peat, climate change, peatland/wetland inventory, peatland assessment and others.

Figure 2: Number of publications published related to peatlands in ASEAN by year from 2006 to June 2020

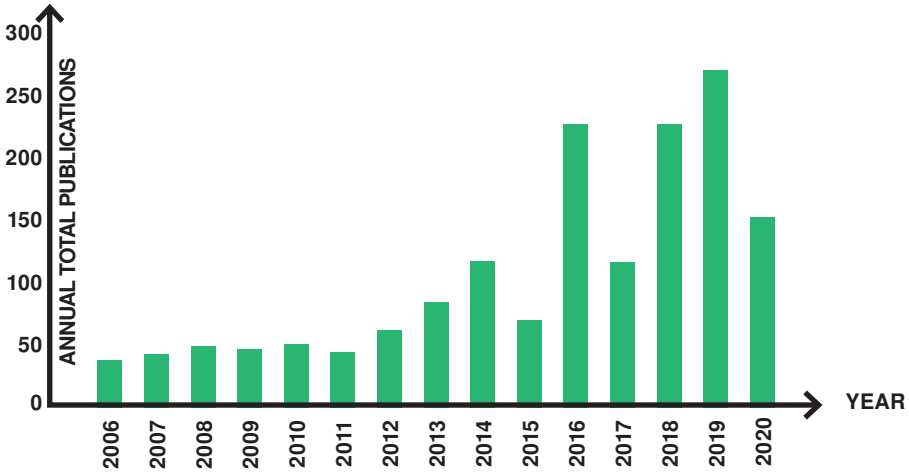
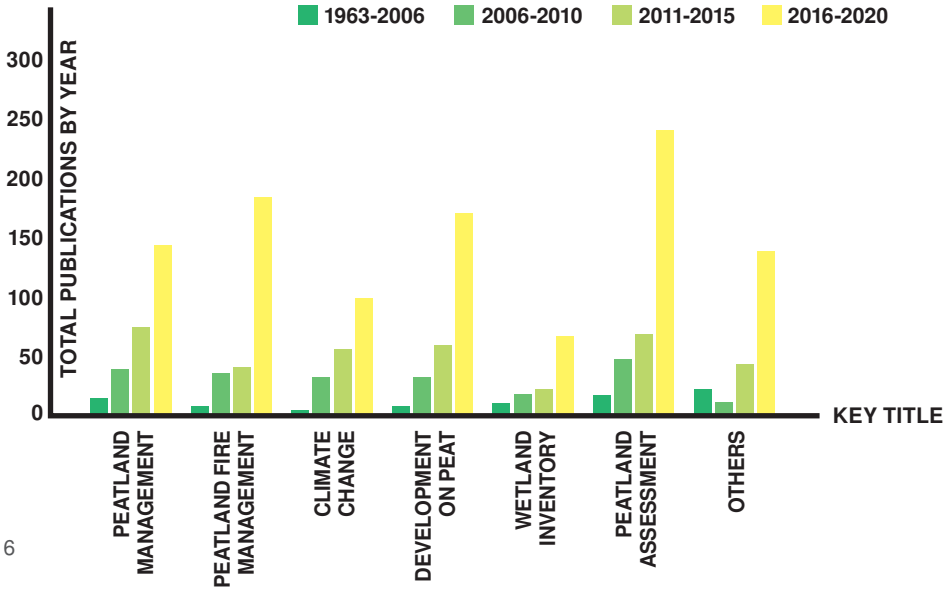


Figure 3: Graph showing trend of peatland publications in Southeast Asia



4. FINDINGS

Progress of Overall APMS Objectives by Focal Area and its Operational Objectives

Progress against Overall Objectives of the APMS were listed in Table 3 below, while detailed assessment on progress against the 25 Operational Objectives are summarised in Table 4.

Table 3: Progress against Overall Objectives of the APMS

Enhance Awareness and Capacity on Peatlands	Each AMS has designated a focal point agency related to peatland management and several have established national committees on peatlands.
Address Transboundary Haze Pollution and Environmental Degradation	Significant action has been taken by AMS to minimise transboundary haze and environmental degradation related to peatlands especially in the southern ASEAN region where most peatlands occur.
Promote Sustainable Management of Peatlands	AMS have recognised the importance of sustainable management of peatlands and water managements as it has been recognised as one of the most critical aspect of peatlands.
Status of Peatlands	A large number of regional and international conferences, workshops and training programmes have been organised by ASEC and AMS over the past 15 years. Exchanges and peer-to-peer learning have demonstrably advanced peatland management in the region and has enabled AMS to fast track introduction of new approaches to peatland management.

Review Against Criteria

The analysis was made of the information collated against five criteria, as follows:

- **Appropriateness/relevance –** The APMS is still very relevant to the ASEAN and international frameworks and plans.
- **Effectiveness –** The APMS has been effective in stimulating the development of National Action Plan on Peatlands (NAPP) and associated national implementation programmes in countries with significant peatland areas.
- **Efficiency –** National capacity enhanced through regular exchange and sharing of experience and building local capacity has been cost effective in stimulating and fast-tracking peatland work and attracting finance from multiple sources for peatland rewetting and rehabilitation.
- **Impact –** The APMS has acted as a key framework and tool for the implementation of the AATHP. It has promoted a focus on prevention of peatland fires rather than the earlier approach on fire-fighting, with significant enhancements in institutions and polices related to peatlands over the past 15 years.
- **Sustainability –** All AMS have designated NFPs for the APMS and have participated actively in the meetings and activities of the ATFP. Most AMS indicated intention to extend NAPPs beyond 2020 or develop a NAPP or equivalent framework. There has been a major increase in allocation of domestic resources for peatland management, as well as in the level of interest and support from international donors for peatland work in the region.

Table 4: Summary of Progress of APMS by Focal Areas and Operational Objectives

Focal Areas	Progress Score Focal Area	Operational Objectives
1. Inventory and Assessment	70%	1.1 Determine the extent and status of peatlands in the ASEAN region
		1.2 Assess problems and constraints faced in peatland management
		1.3 Monitor and evaluate peatland status and management
2. Research	63%	2.1 Undertake priority research activities
3. Awareness and Capacity Building	76%	3.1 Enhance public awareness on importance of peatlands, their 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	77%	4.1 Enhance information management and promote sharing
5. Policies and Legislation	70%	5.1 Develop or strengthen policies and legislation to protect peatlands and reduce peat fire
6. Fire Prevention, Control and Monitoring	60%	6.1 Reduce and minimise occurrence of fire and associated haze
7. Conservation of Peatland Biodiversity	69%	7.1 Promote conservation of peatland biodiversity
8. Integrated Management of Peatlands	61%	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

Progress in implementation 2006-2020	Progress Score
A map of ASEAN peatlands was developed under the ASEAN Peatland Forests Project (APFP) in 2010-2014. Significant new peatlands have been identified over the past 15 years in Papua Region, Mekong countries and Philippines (20,000ha) including upland and montane peatland (2-3 million ha).	77%
Common constraints are conflict of interest by different stakeholders, institutional framework and unsustainable practices. These including extreme dry weather, typhoons and extreme rainfall events.	70%
System is still being established and currently a growing number of assessments have been undertaken using satellite remote sensing. Indonesia established SIPALAGA (Monitoring system of Peatland GWL).	63%
Major increase in amount of research on peatlands in between 2006-2020 with 1,300 publications been produced. Research institute related to peatland also has been established such as TROPI (Malaysia), NUS (Singapore), ITPC (Indonesia).	63%
Awareness amongst the plantation sector especially the oil palm sector has increased significantly. Awareness is highest in the Southern AMS meanwhile AMS with smaller area of peat tend to have low awareness amongst public and stakeholder.	85%
NFPs for ATFP have been designated in all AMS and national committees have been established in 3 AMS (Indonesia, Malaysia and Philippines). Enhancement in peatland management capacity have also been made at national and site level.	70%
Best management practices have been compiled and made available in the form of handbooks especially for peatland conservation and rehabilitation, peatland fire prevention and control, management of oil palm planted on peatlands. Peatland sharing information such as SIPPEG, websites of MOEF, BRG, MOA, BMKG and LAPAN have been established. Dissemination also has been enhanced through seminars and conferences.	77%
Policies, regulations and NAPPs have been developed in six of AMS (Brunei Darussalam, Indonesia, Malaysia, Philippines, Thailand and Viet Nam) with largest peatlands in Indonesia. At the regional level, AMS have adopted the ASEAN Guidelines on Peatland Fire Management in 2015 and The Roadmap on ASEAN Cooperation towards Transboundary Haze Pollution Control with Means of Implementation (2016-2020).	70%
Peatlands with high fire risk have been identified in five AMS and measures initiated to prevent peatland fires through enhanced water management, improved surveillance and rapid responses. A Peatland Fire Prediction and Early Warning System has been developed incorporating Fire Danger Rating System (FDRS) and is actively used in a large number of fire prone peatlands.	60%
More than 50 new species of peatland fish including the smallest vertebrate in the world (*Paedocypris*) which lives in Peat Swamp Forest (PSF) in Sumatra, Indonesia and Malaysia been identified. Many rare and endemic plant species have been recorded in peatland in Philippines.	68%
Inter-agency working groups to support peatland management have been established in Indonesia, Malaysia and Philippines to enhance peatland planning and management. Sustainable peatland management approaches have been successfully promoted in the oil palm sector through the multi-stakeholder Peatland Working Group of the Roundtable on Sustainable Palm Oil (RSPO) which has developed BMP Manuals for Existing Oil Palm Cultivation on Peat, Management and Rehabilitation of Peatlands.	73%
Concept of the basin-wide or landscape approach has been widely promoted in the region. Indonesia introduced peatland hydrological unit approach for management of peatlands. Malaysia adopted a landscape approach to peatland management plans with landscape wide plans to be developed in all key peatland landscapes. Brunei Darussalam, Thailand and Viet Nam have restricted on drainage and conversion of deep peat, peat domes and undisturbed peatland.	60%
Integrated management plans have been developed for peatlands in Indonesia, Malaysia and Viet Nam. Sustainable forest management practices and reduced impact logging have been promoted in Indonesia and Malaysia. Forested peatlands in Thailand have been designated as conservation areas. Brunei Darussalam has phased out logging. Remaining peatlands in Mekong countries and Philippines are in protected areas.	61%
Zero Burning is strictly restricted by law for peatlands in Indonesia (2004), Malaysia (2003) and Thailand has been mandatory for RSPO certification since 2007.	58%

Focal Areas	Progress Score Focal Area	Operational Objectives
		8.5 Promote integrated community livelihood and peatland management
9. Promotion of Best Management Practices of Peatlands	70%	9.1 Promote best management practices through documentation and demonstration sites
10. Restoration and Rehabilitation	65%	10.1 Develop appropriate techniques for the restoration or rehabilitation of degraded peatlands
		10.2 Rehabilitation of burnt, drained and degraded peatlands
11. Peatland and Climate Change	42%	11.1 Protect and improve function of peatlands for carbon sequestration and storage
		11.2 Support incorporation of peatlands into climate change adaptation processes
12. Regional Cooperation	73%	12.1 Promote exchange of expertise in addressing peatland management issues
		12.2 Establishment of 'networks or 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	45%	13.1 Generate financial resources and incentives required for the programmes and activities to achieve targets of the strategy
GRAND TOTAL	**69%**	

Progress in implementation 2006-2020	Progress Score
Friends of North Selangor Peat Swamp Forest in Malaysia have been active since 2012 in undertaking fire prevention patrols and rehabilitating large forest areas. Indonesian has supported establishment of Fire Care Community (MPA) and Peatland Care Villages. In Myanmar, a local monastery has been protecting a calcareous mound spring peatland. In Viet Nam, Green Contracts were established.	59%
Network of BMP sites was identified by the SEApeat project in 2015; 7 in Indonesia, 4 in Malaysia, 2 in Philippines and 2 in Viet Nam. BMPs have been documented and demonstrated through the APFP and SEApeat project between 2010 and 2015.	70%
Guideline on peat swamp forests rehabilitation and planting in Thailand has been developed based on work at Pru Tho Daeng, Narathiwat Province. It became the basis for initial forest rehabilitation trials in Central Kalimantan, Sumatra and Malaysia. Enhanced natural regeneration techniques were also developed in these countries, focusing on rewetting drained peatlands and fire prevention.	66%
In Indonesia, BRG has rehabilitated a total of 780,000ha. In Malaysia, 2,500ha have been rehabilitated in Selangor and Pahang States. Canal blocking, rewetting, agroforestry system, silvo-fishery as well as paludiculture have been applied for restoration and rehabilitation of the peatland undertaken in other AMS.	63%
Extensive assessments have been made to quantify the carbon stock in peatlands in Indonesia in 2005-2007 and at several sites in Malaysia in 2012-2014. Assessments of carbon stock in one site in Cambodia were made in 2016. Carbon finance projects have established two large peatland sites in Indonesia and early stages of development in other sites in Brunei Darussalam and Philippines.	46%
Some preliminary works were undertaken through the Global Assessment of Peatlands, Biodiversity and Climate Change in 2006-2008, as well as under the Asia Pacific Network (APN) on climate change (2009).	38%
One of the most successful regional collaboration was the APFP and the linked SEApeat project which together supported collaborative action in eight AMS between 2010 and 2015. Other regional research initiatives include Sustainable Use of Peatland Forests and Haze Mitigation in Southeast Asia (SUPA), Measurable Actions for Haze Free Sustainable Land Management in Southeast Asia (MAHFSA) and Sustainable Management of Peatland Ecosystems in Mekong Countries (Mekong Peatlands Project).	77%
Technical networks and centres of excellence have been established in the region including the RSPO Peatland Working Group, SEApeat Network, TROCARI and the International Tropical Peatland Center (ITPC). In Indonesia, there are IPB University, University of Palangka Raya and University of Riau. In Malaysia, there are North Selangor Peat Swamp Forest (NSPSF) and Klias Forest Reserve.	70%
Peatland issues have been linked to ASEAN frameworks on biodiversity and nature conservation through the ASEAN Centre for Biodiversity and ASEAN Heritage Parks as well as discussions under the ASEAN Conferences of Biodiversity. AMS have been involved in and actively contributed to the regional cooperation mechanism of ASEAN frameworks through regular meetings and workshops.	73%
There has been good partnership between multiple stakeholders from civil society and the private sector through the RSPO. Multi-stakeholder coalitions have also been established at site or landscape level to support integrated management of peatlands.	70%
After adoption of the APMS in 2006, the first significant regional funding came in the form of the IFAD-GEF supported APFP from 2009-2014 and the associated EU supported SEApeat project (2010-2015). Subsequently with the establishment of the APSMPE in 2014.	45%
	69%

Identified Regional Institution and National Institutional Framework on Peatland

Regional and National Institutional Framework on Peatland as specified on APMS as bellow.

Figure 4: Regional institutional arrangement in ASEAN in relation to land and forest fire, peatlands and transboundary haze pollution

The institutional structure was adjusted in 2013 following the First Review of the APMS with the revised structure, as adopted by the AATHP COP. The main changes made in the structure were the establishment of the ATFP to comprise representatives from APMS Focal Points and peatland experts (see Figure 5). This structure was recommended to replace the concept of a Technical Advisory Group of international peatland experts envisaged in the original APMS structure. The establishment of the task force was enabled by the significant increase in the capacity and level of activity on peatlands at the national level in AMS in the period 2006 to 2012. The role of the ATFP is to monitor and guide the implementation of the APMS as well as report annually to the COM of the AATHP.

The ATFP has functioned as an important forum for the APMS to report annually on the progress in implementing the APMS as well as coordinating the development of regional initiatives with partners to support the APMS implementation.

Figure 5: Institutional framework to guide the implementation of the APMS as per the 2013 revision of the APMS

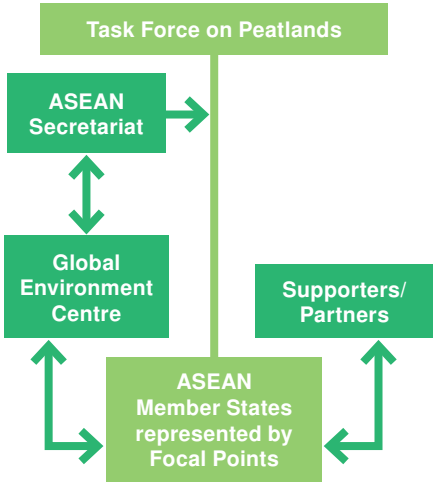


Figure 6: Framework for national level implementation of the APMS as specified in the APMS document (Implementation varies widely between countries)

Status of National Action Plan on Peatlands (NAPP)

Six AMS have developed respective NAPP or incorporated peatlands into other plans and processes. Three AMS have yet to develop their NAPP as they still in process of undertaking inventories of their peatlands. Table 5 below is current status of NAPP:

Table 5: Updated status of the NAPP of AMS and recommendations for next steps

Country	NAPP Status	Recommendation
Brunei Darussalam	Plan finalised and endorsed by the Ministry of Development in 2015.	The current NAPP to 2020 should be reviewed and extended to 2030 taking into account recommendations of APMS review.
Cambodia	Peatland assessment underway in preparation for NAPP development under Mekong Peatlands Project.	NAPP to be developed taking into account recommendations of APMS review.
Indonesia	Completed in 2006; revised in 2012. Now incorporated in long term Plan for Protection and Management of Peatland Ecosystem (RPPEG) for 2020-2049.	Implementation of the National Plan to 2049 and associated rolling plans should take into consideration the APMS review findings and recommendations.
Lao PDR	Peatland assessment underway in preparation for development of the NAPP with support from the Mekong Peatlands Project.	A NAPP should be developed taking into account recommendations of APMS review.

Country	NAPP Status	Recommendation
Malaysia	Prepared in 2008-2010, endorsed by the Cabinet in January 2011 and implemented since 2011. Approved for extension to 2030, included in the National Policy on Biological Diversity in 2016. Review and preparation of the extension of NAPP planned for 2020-2021 with support from IFAD-GEF funded SMPEM Project.	The current NAPP to 2020 should be reviewed, revised and extended to 2030 taking into account recent findings and recommendations of APMS review.
Myanmar	Significant peatlands have been identified at more than seven sites in five provinces/states. Further peatland assessment is underway in preparation for the development of the NAPP with support from the Mekong Peatlands Project.	A NAPP should be developed taking into account recommendations of APMS review.
Philippines	Completed in 2009. Incorporated into national policies/plans Included in the updated National Inland Wetland Conservation Plan 2017-2021 (formerly National Wetlands Action Plan) that is pending adoption.	The current NAPP should be reviewed and revised and extended to 2030 taking into account recommendations of APMS review.
Singapore	Not applicable (No peatland identified). However, Singapore has been supporting regional action on haze and fire monitoring, weather prediction and research on peatlands as well as some support to selected AMS.	Focus on supporting issues at regional level.
Thailand	Approved in June 2015 by the Sub-Committee for Wetlands Management of Thailand (SWMT) under the Ministry of Natural Resources and Environment. Under implementation and reporting to ATFP.	The current NAPP to 2020 should be reviewed and revised and extended to 2030 taking into account recommendations of APMS review.
Viet Nam	Drafted since 2006, final plan in local language prepared in 2014. Awaiting final government approval.	The current draft NAPP should be reviewed and revised and resubmitted for approval to cover period to 2030 taking into account recommendations of APMS review.

Analysis of information from stakeholders for present and future APMS

SWOT and PEST analysis were used to analyse information provided in response to the questionnaires and review of documents. The significance of information collected was reviewed against five criteria namely Appropriateness/ Relevance, Effectiveness, Efficiency, Impact and Sustainability. Figures 7 and 8 provide summary of SWOT and PEST analysis for information collected. For more detailed analysis, refer to chapter 6 and 7 of the main report document.

Figure 7: SWOT Analysis in the APMS

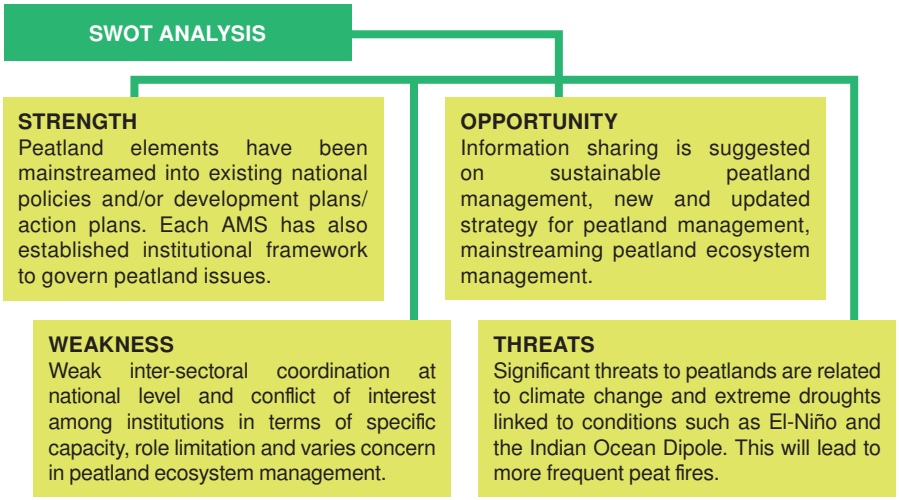
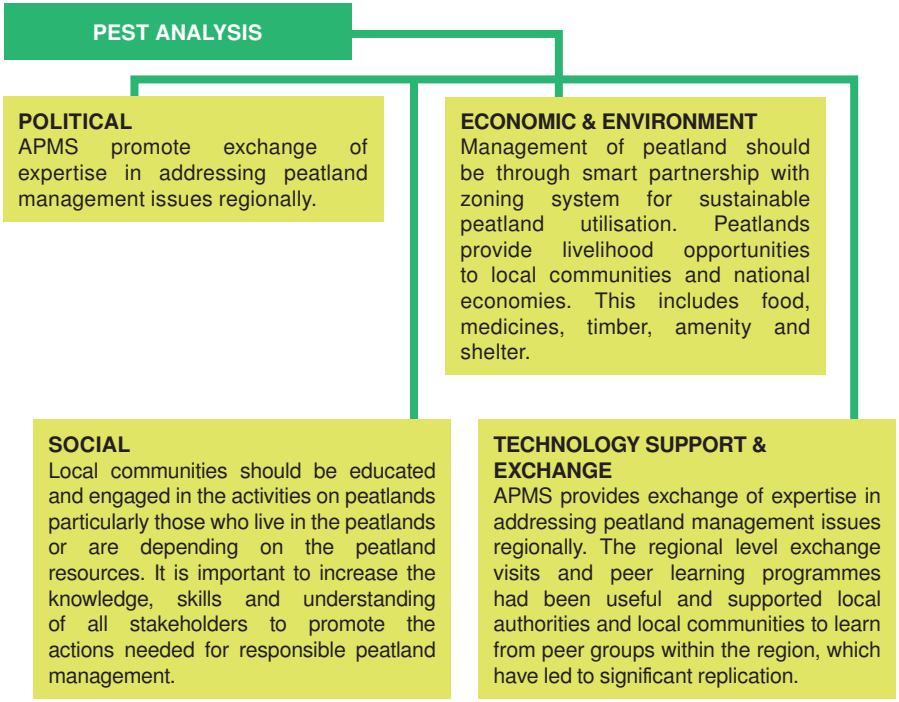


Figure 8: PEST analysis in the APMS

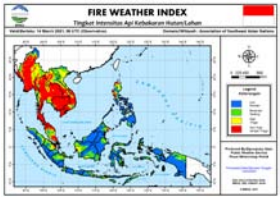


Lessons Learned and Best Management Practices

One important element arising from the APMS review – in particular from the FGDs and discussions with the APFP NFPs as well as the review of the peatland-related projects reports and literature – is the growing number of examples of case studies and BMPs for peatlands in Southeast Asia. Many of these BMPs have been recognised at international fora, publication platforms and exchange programmes. There are 55 best management practices (BMPs) from peatlands in ASEAN identified through the APMS review.

FLORA
Handbook on Peat Swamp Flora of Agusan Marsh, Philippines

CULTIVATION & REHABILITATION
RSPO BMP manuals



REGIONAL INFORMATION
BMKG, MET Malaysia, DNP

PEATLAND REGULATION
Indonesia

PEATLAND ASSESSMENT
Cambodia Mangrove Peatland

Resource Mobilisation

The expert team reviewed information on resource allocation for peatland activities in the ASEAN region. This also includes budget allocation for peatlands by the Indonesian Government (biggest peatland in ASEAN). The review also found that there has been a growing amount of private sector support for peatland conservation and sustainable management over the 15 years of APMS implementation. Prior to the start of the APMS, there was little or no engagement with the private sector in addressing the targets under the APMS.

Figure 9: Government budget allocations for peatland management in Indonesia (2015-2024) (USD 497.8 Mil)

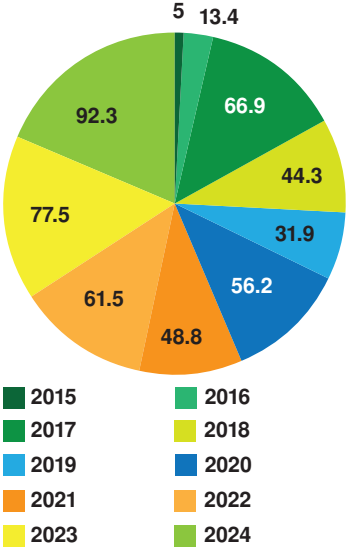


Figure 10: Indicative contributions from Dialogue Partners for peatland-related projects in ASEAN (2006-2020) (USD 292 Mil)

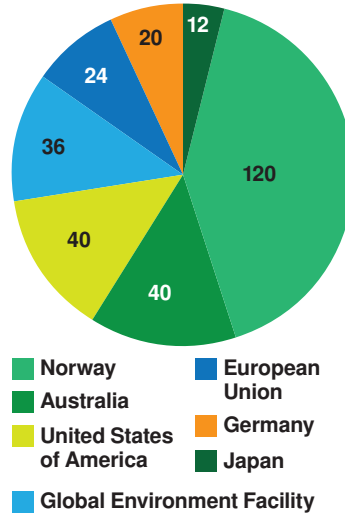


Figure 11: Trend in the funding level of GEF projects (GEF funds/co-funding) approved related to peatlands in ASEAN in 5-year blocks before and after the adoption of the APMS

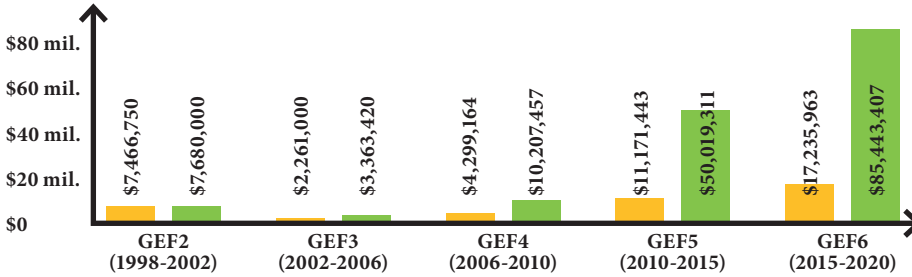


Table 6: Regional projects to support APMS implementation

Funding agency	Project title	Year of support	Budget (USD mil.)	Executing agency
IFAD-GEF	ASEAN Peatland Forests Project	2009-2014	4.30	ASEC, GEC, AMS
EU	SEApeat	2010-2015	2.06	GEC, AMS
IFAD	MAHFSA	2019-2024	3.50	ASEC, GEC, ASEC, GEC, CIFOR, AMS
EU-Germany	SUPA	2018-2023	29.04	GIZ, WRI, AMS
IUCN-GEF	Mekong Peatlands Project	2019-2023	2.90	IUCN, GEC, FREDA, AMS

Conclusions

APMS and Regional Approaches

1. All the actions specified in the APMS have been initiated and most are well underway.
2. Significant progress has been made in achieving the Goal and General Objectives of the APMS.
3. ASEAN Member States continue to value the APMS and the associated work on peatlands.
4. The APMS continues to be highly relevant and important in the ASEAN region.
5. Implementation of the APMS makes an important contribution to safeguard regional and global environment and meeting obligations of global environment conventions and multilateral environmental agreements.
6. The APMS has led to significant progress and achievements on conservation and restoration of peatlands and fire prevention.
7. The APMS has helped to share good practices and stimulate regional and national actions.
8. The APMS institutional framework has improved with establishment of the ATFP but needs further enhancement.
9. The resources available to implement the APMS from national and international sources have been increasing but there are still significant resource mobilisation gaps and challenges.
10. The APMS has enabled cost-effective action by sharing low cost appropriate techniques between countries and stakeholders.

National Actions

11. Six AMS have developed and started implementation of their own NAPP.
12. There has been a significant improvement in national capacity and institutions to undertake work on peatlands.
13. Peatlands have been incorporated into other policy and legislative frameworks in several AMS.
14. All AMS have taken some actions to support the APMS implementation, depending on capacity, resources and relative importance of peatland-related issues at the national level.

Stakeholder Engagement

15. Active NFP for Peatlands of AMS are key to coordinate and facilitate effective engagement of different government agencies including provincial/state and local governments from different sectors.
16. The engagement of local communities is essential for sustainable peatland management.
17. The private sector is a key partner for sustainable peatland management.
18. Civil society is a key partner to facilitate engagement of stakeholders and enhance public awareness on peatland management issues.
19. Research on peatlands has rapidly expanded in recent years but more remains to be done.

Sustainable Peatland Management Approaches

20. International cooperation partners have increased their support for peatland management in recent years but this needs to be further scaled-up and provided in a more expedited and predictable manner.
21. The majority of peatlands in ASEAN have been identified and documented but there are still important gaps in knowledge.
22. Peatlands in ASEAN are of global significance for biodiversity conservation and climate regulation as well as of national and local significance for water management and livelihood support.
23. Peatlands in the ASEAN region have been seriously degraded in the last 50 years and relatively few areas of pristine peatland remain.
24. Effective water management in the peatland landscape is the most important factor for sustainable peatland management.

25. Enhanced peatland management and fire prevention is critical to eliminate transboundary haze in ASEAN.
26. Peatland fire needs to be managed using an integrated fire management approach.
27. The root cause of peatland degradation includes business as usual approaches to peatland development such as drainage and planting of dryland crops.
28. The importance of peatlands as carbon stores has been recognised and actions to reduce GHG emission in peatland has been prioritised by some AMS.
29. Insufficient action has been taken to assess the impacts of climate change on peatlands and develop adaptation strategies.

Proposed Recommendations to ATFP and COM-AATHP on the future of the APMS

APMS and Regional Approaches

1. The APMS should be reformulated for the period 2021 to 2030 to maintain and scale-up action for sustainable peatland management.
2. The scope of the APMS focal areas and objectives should be updated, focused and also broadened to certain additional areas.
3. Clear targets, criteria and indicators should be developed for the next phase of the APMS to enable effective monitoring and evaluation.
4. The next phase of the APMS should be developed through a participatory and multi-stakeholder process.
5. The institutional framework at regional level should be strengthened and enhanced support from ASEAN Secretariat and partners.

National Actions

6. Consideration should be given to establish sub-regional action plans for the northern and southern ASEAN in the next APMS given the different nature and drivers of the peatland management.
7. An investment framework should be developed for the next phase of the APMS to guide/ support resource allocations at local, national and international levels.
8. A multi-stakeholder financing mechanism(s) and resource mobilisation plan should be established to support implementation of the APMS.
9. A regional knowledge hub for peatland management should be established and information sharing and exchange should be enhanced.
10. A special publication to showcase the achievements and lessons learned from the 15 years of APMS implementation (2006-2020) should be prepared.
11. Strengthen the capacity of NFPs on Peatlands to work with multiple agencies.
12. AMS with existing NAPPs should update and extend them in parallel with the revised APMS.
13. AMS currently without NAPPs should either develop a National Action Plan on Peatland (NAPP) and/or integrate peatlands into other appropriate plans and strategies.
14. Peatlands should be fully incorporated into national development plans, national climate mitigation and adaptation plans, and rules and regulations related to environment and land management.
15. Further assessments of peatlands at national and sub-national levels should be undertaken in each of the AMS to fully document all peatlands.

Stakeholder Engagement

16. Partnership framework/platforms should be established at regional and national levels to facilitate enhanced engagement of key stakeholders for implementation of the APMS.
17. AMS should adopt a community-based approach when implementing the APMS at local level.
18. Linkages should be enhanced to other relevant ASEAN sectors.
19. The engagement of civil society, private sector and research institutions in the APMS and sustainable peatland management should be enhanced.
20. Expand targeted research on key issues related to peatland management.
21. Remaining intact peatlands should be designated as protected areas to conserve biodiversity and ecosystem functions.
22. Special measures should be taken to assess and conserve montane or upland peatlands.
23. Experience in sustainable peatland management should be documented and shared through exchange programmes and regional site networks.
24. New and economically-viable peatland management options for local communities need to be developed and promoted.
25. Best management practices for sustainable management of peatland need to be scaled up and more broadly applied.

Sustainable Peatland Management Approaches

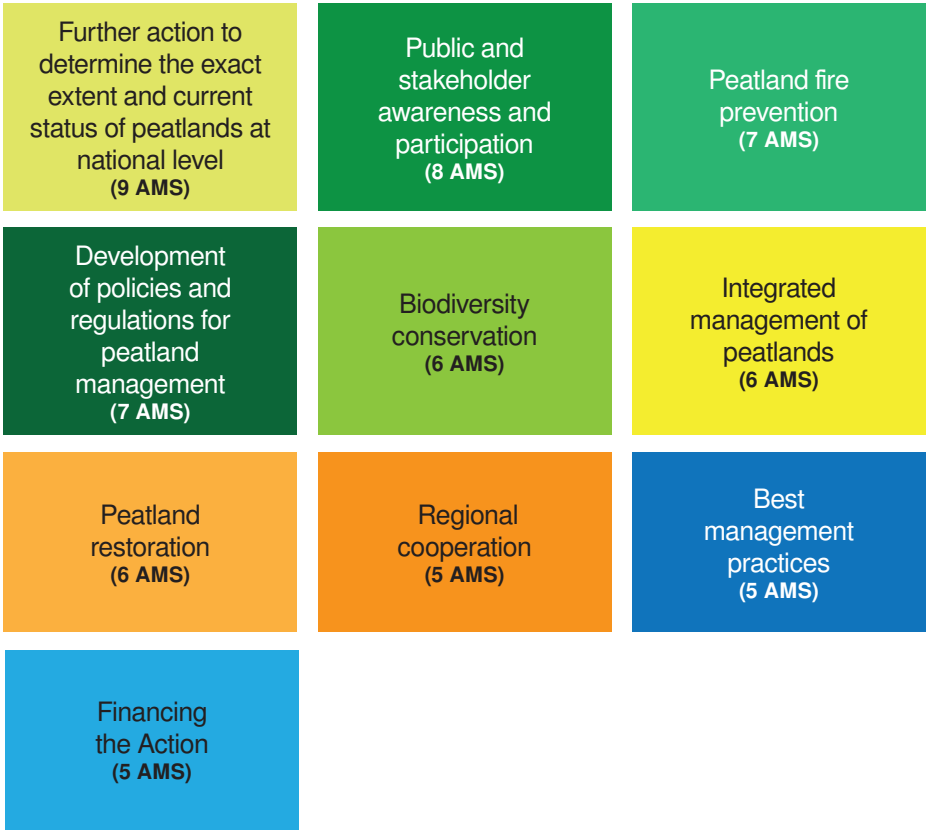
26. Peatland ecosystem management should be mainstreamed based on the peatland hydrological unit or landscape approach.
27. Peatland fire prevention should be enhanced through investment, incentives, capacity development, multi-stakeholder partnerships and technology.
28. Rights of local and indigenous communities living in and adjacent to peatlands should be recognised and land tenure conflicts resolved.
29. New approaches for results-based management for peatlands should be developed including payments for ecosystem services.
30. An ambitious target should be set for rewetting and rehabilitating degraded peatlands for fire prevention, biodiversity conservation, climate mitigation and sustainable livelihoods.

5. FUTURE PRIORITIES FOR NEXT APMS

As part of the APMS Analysis, AMS provided input on potential national level goals in relation to the 25 APMS operational objectives that could be included in future APMS. The top priorities based on numbers of AMS are as summarised in Figure 12 below.

APMS conclusion and proposed recommendation were derived for 4 main perspectives, mainly APMS & Regional Approach, National Actions, Stakeholder Engagement an Sustainable Peatland Management Approaches. With a total of 29 conclusions and 30 proposed recommendations to ATFP and COM-AATHP on the future of the APMS.

Figure 12: Priorities for the period 2021 to 2030



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