



ASEAN PEATLAND MANAGEMENT STRATEGY 2006-2020

Updated September 2013



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STRATEGY AND ACTION PLAN FOR SUSTAINABLE MANAGEMENT OF PEATLANDS IN ASEAN MEMBER STATES 2006-2020

UNDER THE FRAMEWORK OF THE
ASEAN PEATLAND MANAGEMENT INITIATIVE (APMI)

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PREFACE

The Strategy and Action Plan for Sustainable Management of Peatlands in ASEAN Member Countries (or ASEAN Peatland Management Strategy (APMS) in short) has been developed by ASEAN Member States (AMS) to guide actions to support management of peatlands in the region in the period of 2006-2020. The APMS has been prepared due to the pressing need recognised by both local and international communities for wise use and sustainable management of peatlands as well as the emerging threat of peatland fire and its associated haze to the economy and health of the region, and its possibility of contributing to global climate change. The APMS is being developed within the framework of the ASEAN Peatland Management Initiative (APMI) and the ASEAN Agreement on Transboundary Haze Pollution.

The APMI was first proposed at the 9th ASEAN Ministerial Meeting on Haze (AMMH) on 11 June 2002 in Kuala Lumpur, Malaysia. The APMI was adopted at the 20th Meeting of the ASEAN Senior Officials on the Environment-Haze Technical Task Force (ASOEN-HTTF) in Manila in February 2003 together with an initial work plan (2003-2005). The APMI was highlighted at the 10th AMMH in Siem Reap, Cambodia in March 2003.

The development of a regional strategy was one of the items in the initial work plan (2003-2005) of the APMI. Subsequently, each AMS was requested to provide background information and country papers and presented them to the First Regional Workshop on the APMI in October 2003 in Bogor, Indonesia. The workshop agreed on the outline of the strategy as well as the process required for the development of the strategy. ASEAN Secretariat with the assistance of the Global Environment Centre (GEC) then developed the outline into a full regional strategy, taking into account the discussions in the regional workshop, country papers, statements and recommendations from relevant workshops and conferences on peatland, and inputs

and comments gathered from AMS, APMI partners and supporters. The first draft of the regional strategy was circulated by the ASEAN Secretariat in July 2004. AMS were requested to conduct their respective national consultations to provide inputs to the draft strategy.

National consultations on the first draft of regional strategy were conducted during the period of July 2004 to May 2005. Some AMS, i.e. Indonesia, Malaysia, Thailand and Viet Nam, conducted national consultative meetings, while some others provided their comments gathered through consultations with relevant agencies. The Second Regional Workshop on the APMI was held at the end of May 2005 in Kuala Lumpur, Malaysia to consolidate results of the national consultations and finalise the draft regional strategy. This current draft of the regional strategy has incorporated updates provided by AMS, and taken into account the discussions during the second regional workshop.

The implementation of the APMS was reviewed by the AMS and ASEAN Secretariat between August 2012 to March 2013. Various changes have been made as a result of the review and are included in this version. The revised version of the APMS was adopted by the Committee to the Conference of Parties to the ASEAN Agreement on Transboundary Haze Pollution (COM-AATHP) on 23 September 2013 in Surabaya, Indonesia.

The strategy primarily focuses on the following four objectives:

- Enhance Awareness and Knowledge on Peatlands
- Address Transboundary Haze Pollution and Environmental Degradation
- Promote Sustainable Management of Peatlands
- Enhance and Promote Collective Regional Cooperation on Peatland Issues

The strategy sets out operational objectives that would contribute to the delivery of one or more of the areas above, which would serve as guidance to AMS and other implementing bodies and collaborating partners through specific action plans and timeframe for these actions. Considering the increasing need for networking, regional and international cooperation to address the issue of peatland fire and haze, conservation and sustainable management, and capacity building in peatland related research and management - this strategy can play a greater role to provide the formal cooperation among AMS to solve peat-related problems in the region.

The AMS will be responsible to facilitate the implementation of the strategy at national level to help ensure that the general and the operational objectives are met. This would be done through the development of National Action Plans (NAPs) to be developed through additional national consultative meetings in AMS.

1 INTRODUCTION OF PEATLANDS IN THE ASEAN REGION

The information given below provides background information of peatlands in the ASEAN region. They were primarily taken and compiled from papers by AMS during the First Regional Workshop on the APMI held in Bogor, Indonesia on 16-17 October 2003, and updated papers presented during the Second Regional Workshop held in Kuala Lumpur, Malaysia on 24-26 May 2005. In addition, information was taken from the official documents of the APMI as well as other key documents.

1.1 Peatland Distribution in the ASEAN Region

The total area of peatlands in Southeast Asia is estimated to be about 25 million ha, which is 60% of the world's 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 70% of total peatland area in Southeast Asia. Other major peatland areas are found in Malaysia, Brunei Darussalam and Thailand while Viet Nam, the Philippines, Cambodia, Lao PDR, Myanmar and Singapore have smaller areas of peatlands.

However, increased development, land conversion and degradation caused by land and forest fires have reduced peatland resources significantly over the past few years. Peatlands are usually found in low altitude, sub-coastal areas extending inland for distances up to 300 km. The depth of peat varies from 0.5 m to more than 10 m.

1.2 Extent of Peatlands

In most countries, peatlands are designated as conservation areas, production forests or agricultural lands. The proportion varies significantly between countries. The area of undisturbed/pristine peatlands in the region is very small.

Currently, most AMS have recognised the need to use resources available from peatlands with

a sustainable approach. In this respect, more emphasis is needed on conservation values for the sustainable use of peatlands. This will aid in better management of the resources for current and future generations.

1.3 Values and Uses of Peatland in the ASEAN Region

Peatlands have important natural values and provide a number of benefits in most of the AMS including:

- i. water supply and storage, flood control, carbon sequestration and storage, ecotourism and biodiversity conservation,
- ii. harvesting of timber and non-timber forest products,
- iii. other common uses is for land conversion for agriculture, plantation or infrastructure development purposes; and
- iv. for research and public education.

1.4 Policies and Institutional Frameworks relating to Peatlands

In some AMS such as Indonesia there are specific regulations related to peatlands – but in most AMS, there are no specific laws or policies directly related to peatlands. Different aspects of peatland management are governed by a variety of different policies, laws and regulations. There may be a value of developing a synthesis of relevant legislation and policy or developing specific policy or regulations related to peatlands. In most AMS, there are a very broad range of different Ministries and agencies with some role or responsibilities related to peatland management. In order to ensure effective management there may be a need for enhanced coordination or streamlining.

1.5 Common Issues and Concerns

The following common issues and concerns have been identified based on the country papers and discussions at the APMI workshops as well as other regional meetings.

a. Peatland fire and transboundary haze pollution

The most important management issue of regional importance is the transboundary haze pollution arising from peatland fires. Peat fires in the region almost always occur as a result of human intervention. Undrained peat rarely burns - so drainage of peatland for agriculture, forest plantation and timber harvesting and other purposes is the main root cause of peatland fires. The worst occurrence of fires in peat swamp in the recent years was the vast fires of 1997-98 that damaged large areas of peatland landscape for several months during the dry season. The inferno during the 1997-98 blaze choked Southeast Asia with smoke and haze, destroying or degrading 2 million hectares of peatland, threatening the natural resources and ecological functions of peatlands as well as the socio-economic structure of settlements in the region, besides endangering the health of the population.

b. Community livelihood

Local community groups use peatland and its resources to earn a livelihood e.g. collecting medicinal plants, harvesting non-hardwood products, farming, etc. These activities can cause small-scale negative impacts on peatlands such as degradation.

c. Over-exploitation of peatland and its resources

Land conversion of peatlands for the development of plantations, agriculture and urban areas is a large-scale issue. Consequently, some problems have occurred such as over-drainage, loss of biodiversity, fire and haze pollution which contribute in significant destruction on the environment. Illegal logging is a major problem which is seriously affecting peatlands. Peatlands have also been exploited for its timber and non-timber resources.

d. Drainage

All kinds of development on peatland involve drainage of the peatland itself and/or its surrounding area altering its hydrodynamic equilibrium. It also carries the risk of over-drainage and excessive drying leading to irreversible damage and deleterious impact on the natural communities. Excessive drying will also increase the frequency of peatland fires.

e. Floods

Drainage causes degradation of peat and reduces the natural capacity of peatlands to absorb and store water and act as a natural reservoir and thus increases flood risk. Subsidence as a result of drainage also increases flood risk.

f. Loss of biodiversity

Due to degradation of peatlands due to land clearance, drainage and increased frequencies of fire, there is a loss of biodiversity of the region's peatlands. Losses also take place as a result of over-harvesting of peatland species such as timber trees, species of medicinal plants, birds, fauna and other biodiversity.

g. Carbon losses

The high level of organic carbon in peatlands makes them significant carbon stores. Peatlands of the region are thought to store up to 5% of all carbon stored on the world's land surface. The clearance, drainage and burning of peatland in the region leads to significant carbon dioxide emissions which are considered of global significance.

h. Spreading of invasive alien species and diseases

Degraded peatland ecosystems are more susceptible to invasion of alien species (e.g. *Acacia* spp.) and agriculture and plantations on poorly managed peatlands are more at risk of diseases and pests such as stem rot fungus and termites.

i. Inadequate knowledge regarding peatland management and restoration

Although significant progress has been made in identifying best management practices for certain uses of peatlands, there is still inadequate knowledge on peatland functions, sustainable management options and restoration. There is also a lack of understanding of the ecological complexity of this system and failure to comprehend the importance of its natural functions.

j. Current legislation and policies

Peatlands in the region are affected by inappropriate or conflicting policies. For example in several countries in the region incentives are provided to drain peatlands

to create agricultural land– even when such peatlands are of marginal agricultural value or provide more valuable ecological services in their natural state. In addition even when peatlands are protected by the law there are problems of poor law enforcement.

k. Issues of definition

One of the problems in managing the region's peatland resources arises from the lack of common definition and classification of peatlands in the region which in turn leads to problems in clearly delineating the peatlands and developing common management guidelines.

1.6 Common Needs regarding Peatland Management

There are similarities within the ASEAN region in many aspects of peatland management such as common problems of fire, drainage, inappropriate management practices, livelihood options, sustainability, etc. The AMS also share similarities in many aspects such as an urgency to address issues of awareness/ education/information exchange, capacity building/training, peatland fire prevention and control, sustainable use, peatland rehabilitation, peatland inventory, research, pilot or demonstration projects.

In order to overcome the common issues regarding peatland management, the following needs to be accomplished:

- Improve knowledge of peatland ecosystem [resolving issues of definitions, development of management and restoration options, research, ongoing monitoring, and sharing information];
- Resolve conflicting interests between local people, industries, government (inter and intra) [involves community awareness activities]; and
- Better policies and institutional frameworks.

To achieve above needs the following steps should be taken:

- i. Improve scientific knowledge
 - a. Resolve the issues of definitions;
 - b. Ongoing research and monitoring:
 - Demonstration sites;
 - Pilot projects.

- ii. Enhance awareness and capacity building:
 - a. Education;
 - b. Improve information exchange and availability;
 - c. Training workshops and institutional strengthening;
 - d. Improve management of peatlands by local community groups – i.e. sustainable community livelihood;
- iii. Improve partnerships between stakeholders:
 - a. Resolve conflicts between related stakeholders;
 - b. Enhance the role of the private sector in promoting best management practices and sustainable peatland management and
 - c. Strengthen engagement and empowerment of local communities for sustainable peatland management.
- iv. Improve legislations and policies:
 - a. Ensure that legislation and policies facilitate a balance between utilisation and sustainable use of peatland and its resources;
 - b. Improve law enforcement.

1.7 Regional Cooperation

a. ASEAN Vision 2020

ASEAN cooperation on the environment has been guided by the ASEAN Vision 2020, the medium-term plans of action, and meetings of the ASEAN Ministers on Environment. ASEAN Vision 2020 specifically calls for "...a clean and green ASEAN with fully established mechanisms for sustainable development to ensure the protection of the region's environment, the sustainability of its natural resources, and the high quality of life of its peoples..."

b. Bali Concord II

During the 9th ASEAN Summit in October 2003, the ASEAN Leaders pledged to achieve an ASEAN Community by the year 2020 that will rest on the three pillars of "ASEAN Security Community", "ASEAN Economic Community" and "ASEAN Socio-Cultural Community" as embodied in the Declaration of ASEAN Concord II (Bali Concord II). The ASEAN Socio-Cultural Community (ASCC) was envisaged

in consonance with the goal set by ASEAN Vision 2020, in which ASEAN will be bonded together in partnership as a community of caring societies. Through the ASCC, cooperation in social and rural population will be strengthened, and active involvement of all sectors of society, including women, youth and community groups, will be sought. The ASCC will also intensify cooperation in addressing problems associated with population growth, education, unemployment, prevention of infectious diseases such as HIV/AIDS and SARS, environmental degradation and transboundary pollution.

c. ASEAN Institutional Framework

i. ASOEN-HTTF and SRFAs for Sumatra and Borneo

As a subsidiary body of the ASEAN Senior Officials on the Environment (ASOEN), the ASOEN-Haze Technical Task Force (ASOEN-HTTF) was established in 1995, comprising senior officials from the ten AMS. The ASOEN-HTTF was chaired by Indonesia, and reported to the ASEAN Ministerial Meeting on Haze (AMMH). Realising the need to focus on fire management efforts in specific areas, in April 1998 the ASOEN-HTTF established two working groups for the sub-regions of Sumatra and Borneo, namely the Sub-regional Fire-fighting Arrangement for Sumatra (SRFA Sumatra) and Sub-regional Fire-fighting Arrangement for Borneo (SRFA-Borneo). Two other subsidiary bodies under the ASOEN-HTTF were the SRFA Legal Group and Law Enforcement, focusing on legal and law enforcement matters, and the Sub-Regional Climate Review meeting, focusing on climate and meteorological conditions. An ad-hoc Simulation Organizing Committee for SRFA Fire and Haze Disaster Simulation Exercise was formed in 2002 to develop standard operating procedures for assessment, monitoring and joint emergency response for the SRFA and prepare details for SRFA simulation exercises.

Following the entry into force of the ASEAN Agreement on Transboundary Haze Pollution (AATHP) in 2003, the AMMH and its subsidiary bodies was replaced by the Conference of the Parties to AATHP, which was established under the Agreement.

ii. Conference of the Parties (COP) to the ASEAN Agreement on Transboundary Haze Pollution

COP to AATHP was established in 2003, with the entry into force of the Agreement. It provides overall coordination, guidance and policy decisions on ASEAN cooperation on transboundary haze pollution. The COP to AATHP is at ministerial level and meets annually. The COP is supported by Senior Officials in the form of the Committee (COM). The COM meets at least once a year, as the need arise. The COM replaces the ASOEN-HTTF.

iii. Sub-Regional Ministerial Steering Committee (MSC) on Transboundary Haze Pollution and Technical Working Group (TWG) on Transboundary Haze Pollution

The Sub-Regional Ministerial Steering Committee (MSC) on Transboundary Haze Pollution was established in November 2006 to oversee the implementation of the Plan of Action (PoA) to effectively tackle regional haze problems in the short, medium, and long term. Members of the MSC are Brunei Darussalam, Indonesia, Malaysia, Singapore and Thailand. The MSC is supported by a Technical Working Group (TWG) to implement programmes as directed by the MSC. The MSC programmes and activities include, among others, enhancing haze control management, early warning/monitoring, fire prevention and fire suppression capabilities; bilateral collaboration; and Regional Haze Training Network.

iv. TWG and MSC Mekong

The TWG on Transboundary Haze Pollution in the Mekong Sub-region (TWG Mekong) was established in 2008 to review the issues related to transboundary haze in the Mekong sub-region. The member countries of the TWG Mekong are Cambodia, Lao PDR, Myanmar, Thailand and Viet Nam. In October 2010, the Sub-Regional MSC on Transboundary Haze Pollution in the Mekong Sub-region (MSC Mekong) was established, following the successful experiences of the MSC in the southern ASEAN region. The MSC oversees programmes and activities to enhance cooperation among ASEAN Member States in the Mekong Sub-Region on fire and haze pollution control.

d. ASEAN Regional Haze Action Plan

The Regional Haze Action Plan (RHAP) was endorsed by the ASEAN Environment Ministers in December 1997 during a period of intense fire and transboundary haze pollution. Under the overall framework of the RHAP, the strategic measures and activities are targeted at strengthening the region's capacity and capability to address transboundary haze pollution problem. There are three primary objectives of the RHAP, namely (i) prevent land and forest fires through better management policies and enforcement, (ii) establish operational mechanism to monitor land and forest fires, and (iii) strengthen regional land and forest fire fighting capability with other mitigation measures.

The RHAP therefore has three major components: prevention, mitigation and monitoring. Different countries have been designated to spearhead activities that fall under each of the three components. Malaysia takes the lead in prevention, Indonesia in mitigation, and Singapore in monitoring of fires and haze. AMS also undertake the national-level actions that relate to the three RHAP components. Implementation of RHAP at the sub-regional and regional level catalyses and complements the measures carried out at the national level.

e. ASEAN Agreement on Transboundary Haze Pollution

The ASEAN Agreement on Transboundary was signed by the ten AMS on 10 June 2002 in Kuala Lumpur, Malaysia. The Agreement contains provisions on monitoring, assessment and prevention, technical cooperation and scientific research, mechanisms for coordination, lines of communication, and simplified customs and immigration procedures for disaster relief. The Agreement also provides for the establishment of an ASEAN Coordinating Centre for Transboundary Haze Pollution Control.

The Agreement entered into force on 25 November 2003. To date, Brunei Darussalam, Cambodia, Lao PDR, Malaysia, Myanmar, Singapore, The Philippines, Thailand and

Viet Nam have ratified the Agreement and deposited their instrument of ratification/ approval with the ASEAN Secretariat.

f. ASEAN Peatland Management Initiative (APMI)

The concept for this initiative was developed through discussion with a broad range of agencies in 1999-2001. Information on peatland fires and the need for cooperation was discussed at the 13th ASOEN-HTTF Meeting and the 7th AMMH in July 1999. The 19th ASOEN-HTTF Meeting and the 9th AMMH on 10-11 June 2002 discussed the issue of fire prevention and control in peatlands.

The 9th AMMH also discussed the need for proper development and utilisation of peatlands in the region, and requested the HTTF and its working groups to explore development of this initiative. The APMI was discussed and developed further through consultations, questionnaires and regional meetings, and was adopted in February 2003 at the 20th ASOEN-HTTF Meeting in Manila, Philippines, together with a work plan for 2003-2005. The APMI was highlighted at the 10th AMMH in March 2003 in Siem Reap, Cambodia.

Goal and objectives of APMI

The goals of the APMI 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 regional haze, and contribute to global environmental management.

The objectives are:

- To enhance understanding and build capacity on peatland management issues in the region.
- To reduce the incidence of peatland fires and associated haze.
- To support national and local level implementation activities on peatland management and fire prevention.
- To develop a regional strategy and cooperation mechanisms to promote sustainable peatland management.

2 REGIONAL STRATEGY FOR PEATLAND MANAGEMENT

2.1 Background to the Strategy

The First Regional Workshop on the APMI, held in Bogor, Indonesia on 16-17 October 2003, collectively agreed on the process for the preparation of the APMS. The first draft strategy was based on information gathered from AMS provided at the First Regional Workshop on the APMI as well as other relevant materials. The draft was substantially revised following a series of national consultation meetings in AMS as well as the Second Regional Workshop on the APMI in May 2005 in Kuala Lumpur. The process of development of the regional strategy will also include preparation of National Action Plans.

2.2 Challenges for Peatland Conservation and Sustainable Management

Southeast Asia has more than 25 million ha of peatland, comprising 60% of the global tropical peatland resource. These peatlands in Southeast Asia have significant importance for socio-economic development and support for the livelihoods of local communities.

Peatlands play an important role in the hydrological cycle, habitat for unique biological diversity, food supply (especially freshwater fish and other natural products), timber, non-timber forest products (e.g. rattan and honey), carbon store and sinks functions but often their roles are ignored and neglected. This is due largely to the non-integrated and conflicting policies related to agriculture, fisheries, forestry and water resources.

There is also an increasing pressure on tropical peat swamp forest in the region of Southeast Asia particularly for the landless and food production for socio-economic needs. Hence, this fragile ecosystem is often threatened by human activities that directly or indirectly lead to its degradation, and in some instances, badly affected by peat

fires. Major activities that disturb or alter the natural condition of peatlands and degrade the ecosystems are uncontrolled drainage due to unsustainable logging, and large scale land clearing.

2.3 Rationale for a Regional Strategy

Many efforts and actions toward conservation and management of peatlands in the region have been country-based and stand-alone activities. There have been several collaborative efforts under the ASEAN cooperation arrangements but these efforts or activities were limited. Initial efforts under the SFRA, HUTF, AMMH, etc. were focused on immediate steps to address the fire and haze problems and did not include a long-term strategy to specifically address the issues of peatlands in the region.

Within this region there are similarities in many aspects of peatland management such as common problems of fire, drainage, inappropriate management practices, livelihood options, sustainability, etc. The APMI was therefore 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.

In this way, limited resources could be focused on common issues and duplication of effort be avoided. The existence of this broader framework will also ensure that gaps and priority areas of actions for conservation and management of peatlands within the region be identified. Practical and meaningful strategies can then be set collectively, and acceptable to all participating stakeholders for the wise use and sustainable management of this region's peatlands.

It is expected that the strategy would guide countries into taking actions that would ensure prevention and control of future peatland fires in the region and its associated haze through improved management of peatlands.

2.4 Goal

The goal of the strategy 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.

It is in line with the ASEAN Vision 2020 to have "...a clean and green ASEAN with fully established mechanisms for sustainable development to ensure the protection of the region's environment, the sustainability of its natural resources, and the high quality of life of its peoples...".

The regional strategy will provide a common framework for all those with responsibilities for, or commitments to, the sustainable management of peatlands, on its wise use, prevention and fires and rehabilitation. It builds on the principles for regional cooperation embodied in the Declaration of ASEAN Concord II (Bali Concord II). It will also contribute to the development of the ASEAN Socio-Cultural Community (ASCC), which is intended to intensify cooperation in addressing regional problems including those associated with environmental degradation and transboundary pollution. The strategy will also be a contribution to the implementation of the ASEAN Agreement on Transboundary Haze Pollution and the ASEAN Regional Haze Action Plan.

2.5 General Objectives

There are four General Objectives to the proposed strategy. The General Objectives are as follows:

General Objective 1: Enhance Awareness and Capacity on Peatlands

To stimulate awareness and understanding on peatland Issues and build capacity on wise use and sustainable management of peatlands in the region.

General Objective 2: Address Trans-boundary Haze Pollution and Environmental Degradation

To reduce the incidence of peatland fires and associated haze in the region, and to enhance prevention, control and monitoring through collective efforts among the AMS.

General Objective 3: Promote Sustainable Management of Peatlands

To promote integrated management of peatlands for forestry, water, agriculture, local community livelihood, and rehabilitation of degraded peat swamps forest or peatlands.

General Objective 4: Promote Regional Cooperation

To promote and enhance regional cooperation through information exchange and sharing, research and partnership in implementation of activities as well as in generating resources.

2.6 Action Plan

Each General Objective above is to be delivered by the Operational Objectives and Actions that are grouped in thirteen different focal areas. Table 1 shows Focal Areas and the respective Operation Objectives.

An action plan for the strategy (see Table 2) is needed to operationalise the implementation of the strategy. Specific action points are assigned for each Operational Objective to be implemented at different levels and timescales. There are two proposed levels of actions, namely (i) actions to be taken at the regional level (R), and (ii) those that relevant AMS should consider implementing and including in their respective National Action Plans (C). Regional actions could be those that enhance or complement national actions through sharing of experiences, information and knowledge, establishment of regional networks and joint regional approaches/mechanisms/ standards, etc.

The action points are envisaged to be implemented in different timescales. There are three proposed categories, i.e. S for short term (2005-2010) for actions that should be completed within five years; (ii) M for

medium term (2005–2015) for actions that should be completed within 10 years, (iii) L for long term (2005-2020) for actions that should be completed in 2020 and therefore do not need to start immediately, and (iv) C for continuous for actions that should be undertaken on a continuing basis. A level of priority is also assigned for each action. There are three different levels of priority, i.e. L for low, M for medium and H for high. The assignment of priority for each action point would help in situations where there are only limited resources available to facilitate implementation of the strategy. A narrower focus would also facilitate sourcing of funds and kick-start the implementation of the regional strategy. Assignment of priority for country-level actions will guide AMS in prioritising actions under their respective NAPs.

The last column of the Action Plan suggests the indicative support requirements for each action point. The column suggests the financing and implementation strategy for each action point, i.e. whether the action requires financial resources (F), and whether the action can be delivered by experts or resources within ASEAN(AT) or external (ET).

A Detailed Action Plan (DAP) should be developed following the adoption of the regional strategy. The DAP will present a detailed matrix of the budget, source of funding, target date, implementing unit and a monitoring variable. The DAP should be considered as a rolling plan and therefore will be modified and updated from time to time. Depending on an evaluation of actions conducted/ completed, existing action points can be modified, new actions added, and redundant ones deleted. Any changes or updates in the DAP will be reported to the relevant ASEAN body. The development and updating of DAP for the APMS will follow the mechanism and format used for the development of Detailed Implementation Plan (DIP) for the Regional Haze Action Plan. The DAP should reflect not only AMS- or ASEAN-initiated action, but also donor- or partner-initiated action that supports the implementation of a particular action point.

2.7 National Action Plans (NAPs)

For nationally-driven actions, AMS should prepare individual National Action Plans (NAPs) for the period of 2006-2020, taking into account the thrust and objectives of the regional strategy. The NAPs should be naturally linked to and complement the regional strategy and vice versa. The actions to be implemented under the NAPs are a matter for each AMS to decide through its national consultative meetings. AMS should also take into account implementation capacity, including availability of budgetary resources, in developing NAPs. Monitoring and evaluation of these individual NAPs should also be done by the relevant ASEAN body to ensure their relevance to the regional strategy.

Table 1 : Focal Areas and the Respective Operational Objectives

Focal Areas		Operational Objectives
1. Inventory and Assessment	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	2.1	Undertake priority research activities.
3. Awareness and Capacity Building	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	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.
5. Fire Prevention, Control and Monitoring	6.1	Reduce and minimise 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 best management practices for peatlands	9.1	Promote best management practices through documentation and demonstration sites.
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 for carbon sequestration and storage.
	11.2	Support incorporation of peatlands into climate change adaptation processes .
12. Regional Cooperation	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	13.1	Generate financial resources and incentives required for the programmes and activities to achieve target of the strategy.

Table 2 : ASEAN Peatland Management Strategy Action Plan (Revised September 2013)

Operational Objectives		Action			Proposed Level of Activities (C/R)	Time scale (S/M/L/C)	Priority	Indicative support requirements (ASEAN/External Technical, Financial)
1.1: Determine the extent and status of peatlands in the ASEAN region	1.1.1	Harmonise definition and classification of peatlands (e.g. type, depth, vegetation, water regime, extent)	C, R	S	H	AT		
	1.1.2	Determine and update the extent and status of peatlands in the region through comprehensive national inventories (including status of protection, degradation and land use)	C, R	C	H	AT, F		
	1.1.3	Ascertain the direct and indirect uses and values of peatlands and associated biodiversity	C, R	C	H	AT, F		
	1.2: Assess problems and constraints faced in peatland management	1.2.1	Identify problems, constraints and opportunities faced in peatland management	C, R	S	H	AT	
	1.2.2	Undertake assessment of issues related to peatland management to identify potential management options	C, R	M	H	AT, F		
1.3: Monitor and evaluate peatland status and management	1.3.1	Develop a methodology and prepare guideline for monitoring of peatland areas for ecological change and management purposes	R	S	M	AT, ET, F		
	1.3.2	Undertake regular monitoring of peatland areas, including peatland water quality and physico-chemical conditions	C	C	H	AT, F		
	1.3.3	Establish permanent ecological plots for peatland monitoring	C	C	M	AT		
2.1: Undertake priority research activities	2.1.1	Undertake research on appropriate techniques and practices for peatland management	C	M	H	AT, ET, F		
	2.1.2	Undertake basic research on peatland ecosystems and species and hydrological processes to better understand peatland functioning	C, R	L	H	AT, ET, F		
	2.1.3	Undertake R&D to enhance existing or develop new uses for peatland products and resources	C	C	H	AT, ET, F		
	2.1.4	Undertake research to assess and support community development and livelihood activities building on indigenous knowledge and practices	C	M	H	AT, ET, F		
	2.1.5	Undertake economic valuation of peatland resources including cost benefit analysis of the use of peatland resources	C, R	S	H	AT, ET, F		
2. Research								

Operational Objectives		Action	Proposed Level of Activities (C/R)	Time scale (S/M/L/C)	Priority	Indicative support requirements (ASEAN/External Technical, Financial)	
3.1: Enhance public awareness on importance of peatlands, their vulnerability to fire and the threat of haze through implementation of a comprehensive plan	3.1.1	Develop and implement a communication plan for peatland management, including use of media (e.g. video, TV), internet (e.g. youtube) schools, extension services, workshops, information exchange programmes and networks such as SEA-Peat Network and social networking	C, R	S	M	AT, ET, F	
	3.1.2	Develop appropriate local language awareness materials and activities to enhance understanding of peatland values, threats, impacts and sustainable management options	C	S	H	AT, F	
	3.1.3	Provide the general public and government agencies with information on the roles of peatlands, its ecology and economy	C, R	C	H	AT, F	
	3.2: Build institutional capacity on management of peatlands	3.2.1	Support and enhance human resources and strengthen institutional capacity and develop a core group of local experts	C, R	C	H	AT, ET, F
		3.2.2	Establish mechanisms and organise training programmes, workshops, attachments and study tours	C, R	C	H	AT, F
3.2.3		Support transfer of technology for peatland management including practical training	C, R	M	H	AT, ET, F	
4.1: Enhance information management and promote sharing	3.2.4	Encourage academic institutions to offer and prioritize graduate program(MS and PHD) to focus on peatland conservation and management	C, R	C	H	AT	
	3.2.5	Integrate peatland concerns in school curriculum/ co-curriculum activities	C	L	H	F	
	4.1.1	Establish or strengthen existing information systems or clearing houses to manage and make available information related to peatlands	C, R	C	H	AT, ET, F	
4. Information Sharing	4.1.2	Strengthen regional sharing of experience and networking through use of mechanisms such as the ASEAN Haze Action Online, the SEAPeatNetwork, www.aseanpeat.net, workshops, documentation, network as well as strengthening national capacity for information sharing	R	C	H	AT, F	
	4.1.3	Enhance regional information sharing on the extent, status and management of peatlands and develop handbooks for best management practices	C, R	C	H	AT, F	

Operational Objectives		Action	Proposed Level of Activities (C/R)	Time scale (S/M/L/C)	Priority	Indicative support requirements (ASEAN/External Technical, Financial)
5.1: strengthen policies and legislation to protect peatlands and reduce peat fire	5.1.1	Designate specific institutions responsible for peatland management and establish National Peatland Working Groups for related issues	C	S	H	AT, F
	5.1.2	Formulate or update national policies and strategies relating to peatland conservation and wise use, including facilitation of integrated land use planning and management for peatlands	C	S	H	AT
	5.1.3	Strengthen law enforcement	C	C	H	AT, F
6.1: minimise occurrence of fire and associated haze	6.1.1	Identify peatlands in the region with high fire risk and develop and promote preventive measures, and provide necessary equipment and training to appropriate authorities	C, R	C	H	AT, ET, F
	6.1.2	Establishment of Peatland Fire Prediction and early warning system (including Fire Danger Rating System (FDRS))	C, R	C	H	AT, ET, F
	6.1.3	To develop SOP for fire prevention activities including management of water tables in peatlands appropriately according to land use to prevent fire	C, R	C	H	AT, ET, F
	6.1.4	Develop and promote appropriate techniques and SOPs for fire control in peatlands	C, R	C	H	AT, ET, F
	6.1.5	Strengthen inter-agency coordination and capacity of agencies involved in peatland fire prevention and control, including establishment of peat fire prevention units in agencies responsible for forestry and agriculture	C, R	C	H	AT, ET, F
6. Fire Prevention, Control and Monitoring	6.1.6	Establish a partnership to support Haze prevention to involve plantation companies, local communities and other stakeholders to work together to prevent fires and haze.	C,R	C	H	AT, F
	6.1.7	Implement zero-burning strategies for all commercial agriculture and zero or controlled burning for local communities	C	C	H	AT, F

Operational Objectives		Action	Proposed Level of Activities (C/R)	Time scale (S/M/L/C)	Priority	Indicative support requirements (ASEAN/External Technical, Financial)	
7.1: Promote conservation of peatland biodiversity	7.1.1	Identify peatlands in the region which are of regional or global importance for conservation of biodiversity	C, R	C	H	AT, ET, F	
	7.1.2	Assess the status, gaps and threats within the network of protected areas for peatlands and peatland biodiversity and identify priority areas for conservation	C, R	C	H	AT, ET, F	
	7.1.3	Legally designate national, regional or globally significant peatland sites as conservation or protected areas	C, R	C	H	AT, F	
	7.1.4	Strengthen all aspects including 'institutional frameworks' of the management of peatland conservation areas	C	C	H	AT, ET, F	
	7.1.5	Facilitate sustainable utilisation for peatland resources by local communities within/ or adjacent to peatland conservation areas including designated buffer zones	C	C	H	AT	
7. Conservation of Peatland Biodiversity	8.1: Promote multi-agency involvement in peatland management	8.1.1	Establish national inter-agency working groups to develop strategies for peatland protection and sustainable use	C	S	H	F
	8.1.2	Encourage sustainable management practices for all peatland users, including those from forestry, agriculture and plantations	C	C	H	AT, F	
8. Integrated Management of Peatlands	8.2: Promote integrated water resources and peatland management using a basin-wide approach and avoiding fragmentation	8.2.1	Establish regulations or guidelines to control and restrict the opening up of deep peat, peat domes and in order to protect the fundamental importance of the natural water regime as the basis for best management practices in peatlands, and promote Strategic Environment Assessment (SEA)/ Environment impact assessment (EIA) on opening of peatland for all purposes.	C	S	H	AT, ET, F
		8.2.2	Establish through regulations or guidelines, measures to control or restrict further drainage and conversion (for agriculture, plantation, forestry, settlement, mining, infrastructure and other uses) of deep peat, peat domes, undisturbed peatlands as well as other areas of conservation importance	C	C	H	F
		Establish an appropriate water management regime for peat domes and surrounding peat areas, including the blocking of disused or illegal canals.	C, R	C	H	AT, ET, F	

Operational Objectives		Action	Proposed Level of Activities (C/R)	Time scale (S/M/L/C)	Priority	Indicative support requirements (ASEAN/External Technical, Financial)
8.3: Promote integrated forest and peatland management	8.3.1	Ensure the long-term designation and protection of peat swamp forest in reserves and take urgent measures to protect the remaining undisturbed peatlands	C, R	C	H	F
	8.3.2	Develop Integrated Management Plans or guidelines for management of peatland forests and peatland protected areas.	C	C	H	AT, F
	8.3.3	Develop and promote sustainable forest management practices, including low-impact harvesting, zero-drainage harvesting, etc.	C	C	H	AT, F
	8.3.4	Develop and implement measures for post harvesting rehabilitation	C	C	H	AT, F
	8.3.5	Prohibit illegal harvesting practices and associated trading activities	C, R	C	H	AT, ET, F
	8.3.6	Utilise peatlands judiciously for other land uses to prevent fragmentation	C	C	H	F
	8.3.7	Document peatland biodiversity and socio-economic, cultural, and ecological uses	C, R	C	H	AT, F
8.4. Manage agriculture in peatland areas in integrated manner	8.4.1	Restrict future agricultural development only to degraded shallow peat	C	C	H	AT, F
	8.4.2	Document and promote indigenous and traditional knowledge and methodologies, such as techniques for prevention of subsidence and over-drainage, and low impact land-clearing and agricultural practices in existing peatland agricultural areas	C, R	C	H	AT, ET, F
	8.4.3	Develop best practice land clearing techniques affordable and appropriate for communities living in peatland areas	C	C	H	AT, ET, F
	8.4.4	Promote zero burning and best agricultural practices on peatlands through incentive and disincentive measures	C, R	C	H	AT, ET, F

Operational Objectives		Action	Proposed Level of Activities (C/R)	Time scale (S/M/L/C)	Priority	Indicative support requirements (ASEAN/External Technical, Financial)
8.5: Promote integrated community livelihood and peatland management	8.5.1	Enhance local community knowledge of peatlands through awareness and education	C, R	C	H	AT, F
	8.5.2	Support the protection and sustainable use of peatlands through application of customary laws and traditional practices	C	C	H	AT, F
	8.5.3	Promote and enhance market access for traditional products developed by local communities from peatlands	C, R	C	H	AT, ET, F
	8.5.4	Support and empower local communities to protect and sustainably use peatland resources to contribute to their livelihood and environmental security	C	C	H	AT, F
	8.5.5	Introduce and strengthen alternative livelihoods to minimise impacts or dependence on peatlands	C, R	C	H	AT, ET, F
	8.5.6	Engage grassroots stakeholders in participatory management of peatlands	C	C	H	AT, F
9.1: Promote best management practices through documentation and demonstration sites.	9.1.1	Identify and promote demonstration sites for best management practices, for example: site for eco-tourism, livelihood options, restoration, etc.	C, R	C	H	AT, ET, F
	9.1.2	Establish pilot project(s) in each country (according to local needs) to test new sustainable management and fire prevention approaches for peatlands	C, R	C	H	AT, ET, F
	9.1.3	Promote the application of best management practices for peatlands through research and development	C, R	C	H	AT, ET, F
9. Promotion of best management practices for Peatland Management	9.1.4	Establish multi-country technical working groups to work on issues of common concern, such as peatland water management, peatland silviculture or rehabilitation options	C, R	C	H	AT, ET, F

Operational Objectives		Action	Proposed Level of Activities (C/R)	Time scale (S/M/L/O)	Priority	Indicative support requirements (ASEAN/ESAP/Technical, Financial)
10.1: Develop appropriate techniques for the restoration or rehabilitation of degraded peatlands	10.1.1	Develop, promote widely and update regularly, guidelines and manuals on peatland restoration and rehabilitation based on local knowledge, regional experience and R&D findings	C, R	C	H	N/A
	10.1.2	Establish pilot projects to test techniques and document lessons learnt for peatland restoration and rehabilitation	C, R	C	H	AT, ET, F
	10.1.3	Organise specific training programmes related to peatland restoration and rehabilitation	C, R	C	H	AT, ET, F
	10.2.1	Identify and classify degraded peatlands according to the rehabilitation options based on local knowledge, regional experience, R&D findings and appropriate technology	C, R	C	H	AT, ET, F
	10.2.2	Develop national programmes to initiate peatland restoration and rehabilitation activities	C, R	C	H	AT, ET, F
	10.2.3	Implement programmes for peatland restoration and rehabilitation	C, R	C	H	AT, ET, F
10.2: Rehabilitate burnt, drained and degraded peatlands	11.1.1	Quantify the above and below ground carbon content in peatlands in ASEAN countries and its role in mitigating climate change	C	M	H	AT, ET, F
	11.1.2	Identify degraded peatlands and explore the possibility for restoration through the Clean Development Mechanism (CDM) under the Kyoto Protocol/REDD+ Mechanisms	C	L	H	AT, ET, F
11.1: Protect and improve function of peatlands for carbon sequestration and storage	11.1.3	Facilitate support for peatland management and restoration from other climate change-related funding mechanisms	C, R	L	H	AT, ET, F
	11.1.4	Assess potential negative impacts of the use of peat as an energy source	C, R	M	M	AT, ET, F
	11.2.1	Assess the impact of climate change scenarios on peatland ecosystems in ASEAN countries	C, R	C	H	AT, ET, F
	11.2.2	Identify management strategies applicable to minimising peatland vulnerability to global climate change	C, R	C	H	AT, ET, F
	11.2.3	Integrate peatland issues into national or regional climate change adaptation plans	C, R	C	H	AT, ET, F
	11.2.4	Source support for peatland management from adaptation financing mechanisms	C, R	L	H	AT, ET, F
11.2: Support incorporation of peatlands into climate change adaptation processes	11.2.1	Assess the impact of climate change scenarios on peatland ecosystems in ASEAN countries	C, R	C	H	AT, ET, F
	11.2.2	Identify management strategies applicable to minimising peatland vulnerability to global climate change	C, R	C	H	AT, ET, F
11.3: Support peatland management and restoration from other climate change-related funding mechanisms	11.3.1	Facilitate support for peatland management and restoration from other climate change-related funding mechanisms	C, R	L	H	AT, ET, F
	11.3.2	Assess potential negative impacts of the use of peat as an energy source	C, R	M	M	AT, ET, F
11.4: Support peatland management and restoration from other climate change-related funding mechanisms	11.4.1	Assess the impact of climate change scenarios on peatland ecosystems in ASEAN countries	C, R	C	H	AT, ET, F
	11.4.2	Identify management strategies applicable to minimising peatland vulnerability to global climate change	C, R	C	H	AT, ET, F
11.5: Integrate peatland issues into national or regional climate change adaptation plans	11.5.1	Integrate peatland issues into national or regional climate change adaptation plans	C, R	C	H	AT, ET, F
	11.5.2	Source support for peatland management from adaptation financing mechanisms	C, R	L	H	AT, ET, F

Operational Objectives		Action	Proposed Level of Activities (C/R)	Time scale (S/M/L/C)	Priority	Indicative support requirements (ASEAN/External Technical, Financial)
12.1: Promote exchange of expertise in addressing peatland management issues	12.1.1	Develop regional collaborative research projects and other activities involving experts from ASEAN countries	R	C	H	AT, ET, F
	12.1.2	Strengthen the SEA Peat Network to include all experts on peatland in the ASEAN region	R	C	H	AT, F
	12.1.3	Organise regional workshops/conferences to strengthen cooperation and exchange of experience	R	C	M	AT, F
12.2: Establishment of 'networks or centres of excellence' in the region for peatland assessment and management	12.2.1	Designate appropriate 'networks or centres of excellence' in the region on specific aspects related to peatland management	C, R	S	H	AT, ET, F
	12.2.2	Support the strengthening and selected activities of selected centres	R	L	M	AT, ET, F
	12.2.3	Enhance linkage and cooperation between centres	R	C	M	AT, ET, F
12.3: Contribute to the implementation of other related agreements and regional cooperation mechanisms	12.2.4	Designate peatland conservation areas under relevant regional/international mechanism such as ASEAN Heritage Parks or Ramsar Sites, Biosphere Reserves or World Heritage Sites	C	M	M	AT, ET
	12.3.1	Incorporate peatland issues into ASEAN frameworks related to Nature Conservation and Biodiversity, Multilateral Environment Agreements, Water Resource Management, Forestry and Agriculture, and Education	R	M	M	AT, F
	12.3.2	Integrate the APMS into the implementation of the ASEAN Agreement on Transboundary Haze Pollution.	R	C	H	not applicable
12.4: Enhance multi-stakeholder partnerships to support peatland management	12.3.3	Support input on peatland issues into related global convention deliberations (including Ramsar Convention, Convention on Biological Diversity, Convention to Combat Desertification, and UN Framework Convention on Climate Change)	R	C	H	AT, ET, F
	12.4.1	Strengthen partnership among stakeholders through the APMS/National Action Plan on Peatlands (NAPP) and related activities	R	C	H	AT, ET, F
	12.4.2	Forge or strengthen partnerships at local and country level among key stakeholders, including government agencies, NGOs, community and private sector to implement sound peatland management and development	C	C	H	AT, F

12. Regional Cooperation

Operational Objectives	Action	Proposed Level of Activities (C/R)	Time scale (S/M/L/C)	Priority	Indicative support requirements (ASEAN/External Technical, Financial)	
13.1: Generate financial resources required for the programmes and activities to achieve target of the strategy	13.1.1	Develop a financing strategy for implementation of the APWS/NAPP including cost/benefit analysis	S	H	AT, ET, F	
	13.1.2	Undertake feasibility studies to explore use of polluter-pay and user-pay schemes, tax incentives, payment for ecosystem services or other options to generate sustaining resources to support the implementation of the strategy	S	H	AT, ET, F	
	13.1.3	Establish or enhance funding mechanisms to support the strategy implementation	C, R	S	H	AT, F
	13.1.4	Develop/reallocate specific budgets and proposals for funding of activities by national governments, external supporters and other sources to generate resources to support the implementation of the strategy	C, R	C	H	AT, ET, F
	13.1.5	Organise regular forums among donors and supporters to facilitate coordinated funding of activities	C, R	C	H	AT, ET, F
	13.1.6	Establish funding mechanisms related to payments for peatland environmental services, REDD+ to generate funds for peatland conservation and management	C, R	S	H	AT, ET, F
	13.1.7	Establish appropriate mechanisms to channel resources to local government or community groups to support sustainable management and rehabilitation activities through micro credit and CSR activities	C	S	H	AT, ET, F

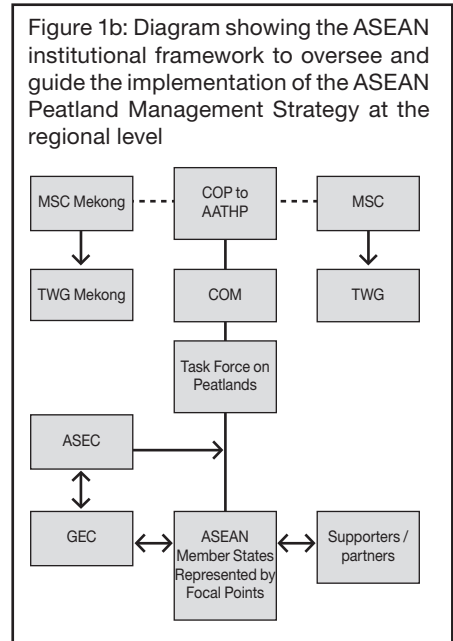
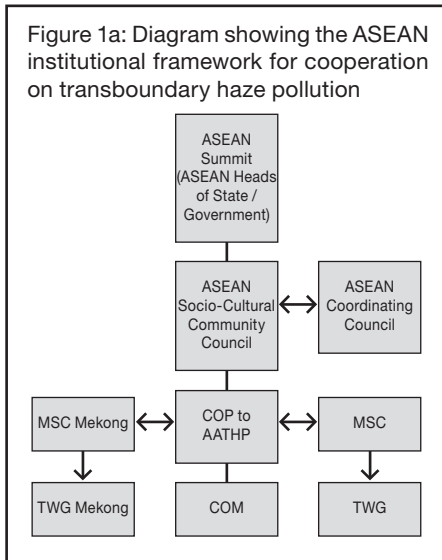
13. Financing of the Initiative

3 IMPLEMENTATION MECHANISMS

3.1 Regional Level Implementation Mechanisms

The implementation mechanism for the strategy will build on the current arrangement under the APMI and AATHP. The main mechanism for the management will be through the ASEAN’s mechanisms related to land and forest fire and transboundary haze pollution, notably the AATHP(see Figure 1a).

The outline of the mechanism to oversee the APMS is shown in Figure 1b below:



Legend for Figure 1a and 1b

- COP** : Conference of the Parties
- AATHP** : ASEAN Agreement on Transboundary Haze Pollution
- COM** : Committee under COP to AATHP
- MSC** : Sub-Regional Ministerial Steering Committee on Transboundary Haze Pollution
- MSC Mekong** : Sub-Regional Ministerial Steering Committee on Transboundary Haze Pollution in Mekong Sub-Region
- TWG** : Technical Working Group on Transboundary Haze Pollution
- TWG Mekong** : Technical Working Group on Transboundary Haze Pollution in the Mekong Sub-Region
- ASEC** : ASEAN Secretariat
- GEC** : Global Environment Centre

Conference of the Parties (COP) to the ASEAN Agreement on Transboundary Haze Pollution

The COP to AATHP will provide oversight and policy guidance for the implementation of the Strategy as well as facilitating linkage to activities at the national level. A Task Force on Peatlands will be established under the COM to specifically look into peatland issues and give input to the implementation of the Strategy and undertake other technical tasks. Linkage should also be made to other appropriate ASEAN structures especially the ASEAN Working Group on Nature Conservation and Biodiversity.

ASEAN Secretariat

The ASEAN Secretariat will undertake the formal coordination amongst AMS and facilitate the main regional activities and meetings as well as linkage with other activities coordinated through the ASEAN Secretariat.

Task Force on Peatlands

An ASEAN Task Force on Peatlands will be established as a subsidiary body under the COM to monitor and guide implementation of the APMS. Membership will include representatives from APMS focal points from AMS and peatland experts.

Global Environment Centre (GEC)

The GEC is a well-established organisation based in the ASEAN region with special expertise on peatlands and the Coordinator of the SE Asian Peatland Network with over 400 members. It is a Founding Partner of the APMI and has provided technical and operational support to the APMI/APMS since its inception. GEC will continue to provide this technical and operation support for the implementation of the strategy as well as assist in generating resources to support its implementation.

ASEAN Member States (AMS)

The AMS will play a critical role in directly implementing the strategy within each country as well as contributing to regional activities. Implementation by the AMS will be guided by their respective NAPs.

Partners

Partners of this initiative include those organisations or on-going projects which are undertaking activities related to sustainable management of peatlands in the region. They contribute by:

- Assisting in the implementation of appropriate components of the strategy.
- Exchanging experience and lessons learned from their activities.
- Inviting participation of countries and institutions in the ASEAN region in their activities as appropriate.
- Providing other contributions as necessary.

Supporters

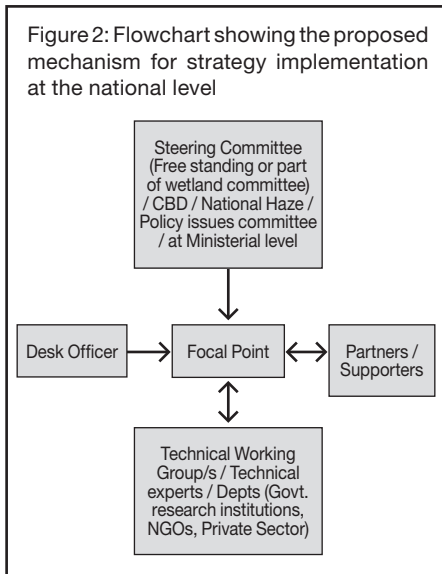
Supporters include donors, research or educational institutions, private sector and the media. They assist by:

- Providing funds or technical guidance.
- Promoting the initiative and providing other support.

Active participation of partners and supporters in the implementation of the strategy will be encouraged to draw from their wealth of expertise and experience and to promote a strong sense of commitment and ownership of projects and activities.

3.2 Country Level Implementation Mechanisms

At country level, the coordination of activities is envisaged to be through appropriate mechanisms established for the implementation of the strategy and associated NAPs. The exact nature of the mechanism will vary between countries and be guided by the respective NAPs. The mechanisms are expected to draw on the following conceptual model:



Focal Point

The Focal Point will be designated by the respective governments as the official contact point for the strategy implementation at the national level. The Focal Point is expected to:

- Give directions to the working group.
- Oversee the development of NAPs.
- Allocate roles and responsibilities to different relevant agencies.

Desk Officer

The Desk Officer may be appointed within the focal point agency or another agency to help the Focal Point. The role would be to:

- Handle coordination of activities for planning and implementation.
- Make sure information is provided to relevant agencies.
- Ensure background given to appropriate stakeholders.
- Facilitate meetings and coordination with ASEAN Secretariat and other partners.

National Working Group/ Task Force (ad-hoc or permanent)

Members would be key technical stakeholders (including government agencies, research institutions, NGOs, private sector) as appropriate. The role would be to provide:

- Provide technical advice to the Focal Point.
- Develop technical guidelines.
- Provide recommendations and suggestions for actions.

Steering Committee

The Steering Committee would comprise policy making agencies and selected key stakeholders). The role would be to:

- Give directions to the Focal Point or technical working group.
- Oversee the development of NAPs.
- Allocate roles and responsibilities to different relevant agencies.
- Consider and adopt NAPs.

Partners and Supporters

Partners and supporters would assist in the development and implementation activities.

3.3 Resource Mobilisation

The resource mobilisation strategy for the implementation of the strategy will be further developed (see **action 13.1.1 in Table 2**). However, there are basically four broad sources of funding for the implementation of the strategy. These are direct contributions from each AMS towards specific actions; ASEAN pooled resources; external funding; and private sector contributions/CSR. ASEAN will adopt a mix of these approaches towards resource mobilisation so that these resources will complement one another.

AMS will be expected to allocate sufficient resources to support the implementation of the strategy at regional and national level. Therefore, respective AMS should mainstream the APMS and NAPs in particular into national development programmes. In this way, the allocation of national funds to implement the APMS and NAPs will be easily secured.

Funding mechanisms will also be developed or enhanced to serve as predictable and reliable resources to facilitate the implementation of the strategy (see **action point 13.1.3 in Table 2**). These funding mechanisms could be in the form of a common pool of financial resources, to be made up from contributions of AMS, based on a mutually-acceptable scheme e.g. the ASEAN Haze Fund.

Contributions from Dialogue Partners of ASEAN and other donor institutions remain an important funding source for the strategy. Another possible source of complementary funding is the private sector.

Regular forums among donors and supporters will be organised to generate external funding and facilitate coordinated funding of activities (see **action point 13.1.5**). Specific budgets and proposals for funding of activities by national governments, external supporters and other sources will also be developed to generate resources to support the implementation of the strategy (see **action point 13.1.4**).

In addition, under the strategy, mechanisms and options to generate sustaining resources for peatland conservation and management will also be explored and developed to sustain respective national and regional activities (see **action points 13.1.2, 13.16 and 13.17**).

3.4 Monitoring and Evaluation Mechanism

Progress in the implementation of the APMS has been reported regularly to the COM. Progress at the national level has been reported to the respective mechanism. In future, it is proposed working group/task force be established to oversee the progress of the APMS. The main objective of monitoring and evaluation is to continuously refine the implementation of the strategy. The monitoring and evaluation mechanism is also needed to ensure that targets are achieved, timely corrective measures are undertaken if needed, and that initiatives and activities remain consistent with the overall Goal and four (4) General Objectives and are responsive to emerging issues and priorities.

While monitoring shows achievements and failures, evaluation goes into the contributing factors or causes and how the problems can be solved. The monitoring and evaluation mechanism will also be developed in such a way that it fulfills the principles of transparency and accountability. The monitoring and evaluation process will be undertaken at two levels:

- At the micro level, with a monitoring and evaluation plan built into each action; and
- At the macro level, with a consolidated assessment mechanism to ensure that the overall strategy implementation is on track in achieving its Overall Goal and General Objectives.

At the micro level, different actions will have their own set of success indicators and targets, depending on their stated objectives. At the macro level, to permit aggregation, a generic set of criteria will be used. This may include appropriateness/relevance (conformity with ASEAN Vision 2020 and its medium-term plans and the ASEAN Agreement on

Transboundary Haze Pollution; sectoral need); effectiveness (achievement of planned processes and results; outputs delivered; outcomes achieved); efficiency (level of resources needed to achieve outputs and targets); impact (contribution to the ASEAN Vision 2020 and its medium-term plans and the ASEAN Agreement on Transboundary Haze Pollution; avoidance of negative consequences); and sustainability (retention of knowledge gained, ongoing resources available, political will to sustain momentum, continuity of flow of benefits).

A baseline situation at the beginning of the strategy implementation should be established as a reference point for the formal review at the macro level. To obtain a balanced view, the widest range of stakeholders' views will be obtained both for micro-level evaluation and macro-level evaluation.

Formal review at the macro level should be undertaken by the ASEAN Secretariat every five (5) years. Any recommendations for revisions or updating the strategy will be submitted to the relevant ASEAN body. A final review will be conducted in 2020 and reported to the ministerial body of ASEAN.





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