

## ASEAN

# Climate Change and Biodiversity

## – Analysis of the Policy Framework –

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Southeast Asia is highly vulnerable to climate change as a large proportion of its population is concentrated along coastlines, and with livelihoods that rely heavily on agriculture, natural resources and forestry. It is already facing the effects of climate change: reduced precipitation in Indonesia from July through October due to the pattern of Indian Ocean warming, while coasts of the South China Sea, Gulf of Thailand and Andaman Sea experience increased rainfall extremes and landfall of cyclones.<sup>1</sup> Projected climate and vegetation changes in the regions are expected to produce widespread declines in biodiversity, especially among bat species; as well as northward range shifts for many species and a significant reduction in the distribution of most species.<sup>2</sup>

Although the Association of Southeast Asian Nations (ASEAN) has been very proactive in framing policies on conservation and climate change, it has not taken an independent position in the negotiations at the



Conferences of Parties (CoPs) to the United Nations Framework Convention on Climate Change (UNFCCC) and Convention on Biological Diversity (CBD), preferring instead to have its views associated with those of the G-77/China bloc. Seven of the ten ASEAN countries have ratified both the conventions and adopted domestic policies on CBD. They are committed to pursuing a broad-based approach to voluntary and appropriate mitigation and adaptation measures enabled by technology transfer, and concessional financial assistance.<sup>3</sup> A proactive approach is particularly important, given that three countries in the region – the Philippines, Malaysia and Indonesia – are “mega-biodiversity” countries.

Prevention of transboundary haze pollution is a prominent part of the region’s actions in mitigation of climate change. A concrete action was taken through the 1997 Regional Haze Action Plan, which is a framework plan to guide the process of strengthening Southeast Asia’s capacity to address transboundary haze pollution.<sup>4</sup> But, in the tradition of the “ASEAN Way”, all existing agreements are “soft law” and hardly enforceable – due in part to the lack of sanctions. The majority of ASEAN States struggle in the field of effective administration, which affects the enforcement of national laws and the fulfilment of

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international obligations alike. Singapore is the only State in the region that has enforcement capacity comparable to developed countries. Although the current process of strengthening ASEAN might be helpful in terms of a more effective environmental policy in the region, success in the fight against illegal logging, forest fires, overfishing and other challenges, depends on an overall improvement in the administrative systems, legal structures and capacities of the countries of the sub-region.<sup>5</sup>

Beyond the political rhetoric, however, ASEAN's environmental commitment in the context of trade and investment is low. For instance, negotiations for the ASEAN-Australia-New Zealand Free Trade Agreement suffered from ASEAN's insistence on dropping the issue of the environment from the trade talks.<sup>6</sup> Some of the countries are still struggling for better policy implementation, especially to protect their forests. In Laos, for example, unsustainable natural resource management policies are affecting forests. Clearing lowland areas for agriculture and unsustainable logging have reduced forest cover by nearly half over the last 50 years. As direct consequences, there have been losses of rural livelihoods as well as of biodiversity.<sup>7</sup>

### Participation in Negotiations

Until recently, ASEAN countries have participated sparingly in the UNFCCC and CBD conferences, but comparatively more in the CBD than in the UNFCCC. This might possibly be accounted for as a desire to make a united stand as a part of the G-77/China bloc; however, the performance of the developing countries altogether was poor in the CBD as they had initially put up a fight for their local communities but only a few had implemented laws to stop biopiracy by multinational companies.<sup>8</sup>

The ASEAN countries have only started taking a stand in the most recent CoPs. At CBD CoP-10, for instance, many ASEAN States made substantive interventions. For example, Indonesia, Thailand and Malaysia joined with Japan, Switzerland, Russia and Greenpeace to call on the Secretariat to contribute to discussions on the development of biodiversity safeguards and mechanisms to monitor the impacts that the UNFCCC-inspired Reducing Emissions from Deforestation and Forest Degradation (REDD+) programmes might have on biodiversity. With regard to the objectives of the Global Strategy for Plant Conservation, Malaysia opposed making only a general reference to the three CBD objectives but preferred reference to the

**Table 1. Status of accession/ratification of UNFCCC and CBD by ASEAN countries and their participation in COPs**

State	Ratification		Participation	
	CBD <sup>a</sup>	UNFCCC <sup>b</sup>	CBD <sup>c</sup>	UNFCCC <sup>d</sup>
Brunei Darussalam	27 Jul. 2008 (accession)	7 Aug. 2007 (accession)	No	No
Cambodia	9 Feb. 1995 (accession)	18 Dec. 1995 (accession)	No	No
<b>Indonesia</b>	Signed 5 Jun. 1992 Ratified 23 Aug. 1994	Signed 5 Jun. 1992 Ratified 23 Aug. 1994	Yes	No
Laos	20 Sep. 1996 (accession)	4 Jan. 1995 (accession)	No	No
<b>Malaysia</b>	Signed 12 Jun. 1992 Ratified 24 Jun. 1994	Signed 9 Jun. 1993 Ratified 13 Jul. 1994	Yes	Yes
<b>The Philippines</b>	Signed 12 Jun. 1992 Ratified 8 Oct. 1993	Signed 12 Jun. 1992 Ratified 2 Aug. 1994	Yes	Yes
Singapore	Signed 12 Jun. 1992 Ratified 21 Dec. 1995	Signed 13 Jun. 1992 Ratified 29 May 1997	Yes	Yes
Thailand	Signed 12 Jun. 1992 Ratified 29 Jan. 2004	Signed 12 Jun. 1992 Ratified 28 Dec. 1994	Yes	Yes
Viet Nam	Signed 28 May 1993 Ratified 16 Nov. 1994	Signed 11 Jun. 1992 Ratified 16 Nov. 1994	No	No
Myanmar	Signed 11 Jun. 1992 Ratified 25 Nov. 1994	Signed 11 Jun. 1992 Ratified 25 Nov. 1994	No	No

N.B. Countries shown in **bold** are megadiverse countries.

a For details, see "List of Parties", at <http://www.cbd.int/information/parties.shtml>.

b For details, see "Status of Ratification of the Convention", at [http://unfccc.int/essential\\_background/convention/status\\_of\\_ratification/items/2631.php](http://unfccc.int/essential_background/convention/status_of_ratification/items/2631.php).

c Country participation has been assessed on the basis of the documents in *Earth Negotiations Bulletin*, Volume 09: Biological Diversity and Plant Genetic Resources", at <http://www.iisd.ca/vol09/>.

d Country participation at the UNFCCC has been assessed on the basis of the documents in *Earth Negotiations Bulletin*, Volume 12: The United Nations Framework Convention on Climate Change, at <http://www.iisd.ca/vol12/>.

conservation and sustainable use of plant diversity, and to fair and equitable sharing of the benefits arising from the utilisation of plant genetic resources. The Philippines supported convening an *ad hoc* technical expert group on sustainable use in agriculture and forestry, including non-timber forest products, in the face of opposition from Australia, Argentina, Brazil and the African Group. The Philippines, supported by many others, requested that no geo-engineering be undertaken until an adequate scientific basis justifies it and called for a global transparent regulatory framework. It also recommended that no synthetic life, cell or genome, be released into the environment. Thailand called for enhancing implementation of the CBD's Gender Plan of Action and creating a CBD staff position for gender mainstreaming. In addition, Thailand joined Egypt, Canada, India and Honduras in favouring the presentation of a joint CBD-UNFCCC expert workshop to promote better understanding of issues of common interest under both instruments. On discussions regarding the revised strategic plan and biodiversity targets, Thailand supported taking action towards halting the loss of biodiversity and called for reduction of the pressures on biodiversity, and restored ecosystems and ecosystem services by 2020.<sup>9</sup>

At CBD CoP-11, Malaysia supported holding an expert meeting on the global multilateral benefit-sharing mechanism, and joined with Ecuador to call for the development of biodiversity indicators specific to indigenous peoples. The Philippines supported adopting the preliminary reporting framework for resource mobilisation and urged the Global Environment Facility not to undermine the effectiveness of national regulatory activities by funding bioprospecting activities while regulatory activities are on-going. It proposed that countries receiving applications for bioprospecting activities require the collector countries to have effective access and benefit-sharing (ABS) regulations in place or to commit to ratifying the Nagoya Protocol. It also recommended facilitating the recovery of cultural property related to traditional knowledge. Singapore called for cities to develop indicators to monitor progress in implementation of the Aichi targets.<sup>10</sup>

Increases in formal intervention levels are also apparent in the UNFCCC process. In UNFCCC CoP-17, Malaysia expressed concern about weak mitigation targets for developed countries and described a number of issues raised by developing countries that were deferred to future meetings, including equity, intellectual property rights and trade measures. The Philippines said that a legal regime should be designed with a view to saving the Kyoto Protocol. Thailand voiced concerns about mitigation and comparability, the absence of ambition, and a compliance regime for mitigation targets.<sup>11</sup>

Then, at UNFCCC CoP-19, Malaysia spoke on behalf of the G-77/China, expressing concern over the lack of funding for adaptation. It stressed that technology development and transfer are key to enabling low-emission trajectories in developing countries. It also said that enhanced Annex I commitments should be the first step and called for, *inter alia*, ratifying the Doha Amendment. Singapore stressed that the past commitments had not yet been fulfilled.<sup>12</sup>

## Climate Change Policies and Actions

Several of the adaptation initiatives in the region have been connected with natural disasters. ASEAN recognises the importance of disaster-risk-reduction measures as adaptation to climate change. As a result, the ASEAN Committee on Disaster Management is seeking to include adaptation in the relevant strategic components of the ASEAN Agreement on Disaster Management and Emergency Response Work Programme from 2010–2015.<sup>13</sup>

The ASEAN Regional Knowledge Network on Forests and Climate Change was established in 2009, based on decisions taken at the Eleventh Meeting of the ASEAN Senior Officials on Forestry (ASOF), held in Kuala Lumpur in 2008.<sup>14</sup> As of today, each ASEAN country has established a high-level governmental body at the national level to address climate change issues and to develop and implement policies, plans and measures (see Table 2).

**Table 2. National-level governmental bodies dealing with climate change**

State	Governmental unit
Brunei Darussalam	National Council on Climate Change
Cambodia	National Climate Change Committee (April 2006)
Indonesia	National Committee on Climate Change and Environment (1992) National Council for Climate Change (July 2008)
Lao PDR	National Steering Committee on Climate Change (2008)
Malaysia	National Steering Committee on Climate Change
Myanmar	N/A
The Philippines	Inter-Agency Committee on Climate Change (1991) Presidential Task Force on Climate Change (2007) Advisory Council on Climate Change Mitigation, Adaptation and Communication
Singapore	National Climate Change Committee (2007) National Climate Change Secretariat (2010)
Thailand	National Committee on Climate Change (1993) National Board on Climate Change Policy and Climate Change Coordinating Unit (2007)
Viet Nam	National Climate Change Committee

The ASEAN leaders' statement on climate change in UNFCCC CoP-17 recognised the importance of sustainable management of forests and its role in ASEAN forest conservation, which will contribute significantly not only to international efforts to promote environmental sustainability and address the adverse effects of climate change, but also to sustainable development. That statement also recognised the need for developing communities resilient to climate change and supporting various regional and international initiatives on climate change. It urged developed-country Parties, working through both multilateral and bilateral channels, to support developing countries in undertaking concrete actions on REDD with full financing options, to promote forest conservation and the sustainable management of forests, and to make progress toward the enhancement of forest carbon stocks, ensuring that all ASEAN countries are able to benefit from the resources to support sustainable development and respect the rights and improve the livelihoods of local communities in developing countries.<sup>15</sup>

The ASEAN countries have made a number of such declarations and statements in support of action on climate change, including the following:

- The ASEAN Declaration on Environmental Sustainability (13th ASEAN Summit in 2007);
- The ASEAN Declaration on CoP-13 to the UNFCCC and CMP-3 to the Kyoto Protocol (13th ASEAN Summit in 2007);
- The Singapore Declaration on Climate Change, Energy and the Environment (3rd EAS Summit in 2007);
- The Joint Ministerial Statement of the 1st EAS Energy Ministers Meeting (2007);
- The Ministerial Statement of the Inaugural EAS Environment Ministers Meeting (2008);
- The ASEAN Joint Statement on Climate Change to CoP-15 to the UNFCCC and CMP-5 to the Kyoto Protocol (15th ASEAN Summit in 2009); and
- The Singapore Resolution on Environmental Sustainability and Climate Change (11th AMME in 2009).<sup>16</sup>

Among the ASEAN countries, Thailand was the first in which a court has the power to prioritise environmental concerns over economic interests. In September 2009, Thailand's Administrative Court issued a temporary injunction that could effectively halt 76 major investment projects (primarily relating to energy and petrochemicals) worth THB 400 billion (US\$12.3 billion) at the country's Ta Phut industrial estate and surrounding areas. The government of Laos has also initiated work on a legal framework for environmental protection and natural resource conservation. Its Environmental Protection Law of 1999 – the country's principal environmental legislation – includes measures for the protection and restoration of the environment, as well as guidelines for environmental management and monitoring. The government has set aside 17 National Biodiversity Conservation Areas comprising just over 10 percent of the national territory, and has logging controls in place.<sup>17</sup>

## Biodiversity Policies and Plans

Southeast Asia was almost entirely covered by lush rainforest 8,000 years ago. Unfortunately, this highly biodiverse region is now experiencing deforestation rates more than double those of other tropical areas. Primary forests remain intact in only a few areas.<sup>18</sup> They have, however, implemented national action plans and strategies to address biodiversity loss. Analysis shows that they are actively engaged in protecting their existing biodiversity resources to strengthen climate change adaptation:

- In Brunei Darussalam, for example, where forest covers 4,690 km<sup>2</sup> (81 percent of the total land area), 22 percent of this cover is secondary forest and plantations and 59 percent is primary forest. The country's strategies are to review legislation to reflect biodiversity needs, enhance sustainable utilisation of the components of biological diversity and integrate biodiversity considerations into sectoral planning strategies.<sup>19</sup>
- Cambodia has 29 protected areas, three wetland sites of international importance and one Biosphere Reserve. In addition to these, protected forest areas comprising more than 1.49 million ha in total area have been established. The country aims for equitable economic prosperity and improved quality of life through sustainable use, protection and management of biological resources. A wide variety of initiatives have been taken to address issues related to indigenous and local communities.<sup>20</sup>
- Indonesia, a megadiverse country, has 50 National Parks and 527 nature reserves. It aims to strengthen the management of natural resources and ecosystems; strengthen the forest protection efforts and law enforcement; develop sustainable use of natural resources; and develop a collaborative management strategy for the protection of natural resources and ecosystems.<sup>21</sup>
- Malaysia, which is also a biodiverse nation, has already designated more than 5 million hectares of its forested land as protected area. The vision of the National Policy on Biological Diversity is to transform Malaysia into a world centre of excellence in conservation, research and sustainable use of tropical biodiversity by the year 2020.<sup>22</sup>
- The Philippines contains two-thirds of the earth's biodiversity and between 70 and 80 percent of the world's plant and animal species.<sup>23</sup> The country's National Biodiversity Strategy and Action Plan (NBSAP) focuses on expanding and improving knowledge on the characteristics, uses and values of biological diversity; enhancing and integrating existing and planned biodiversity conservation efforts with emphasis on *in-situ* activities; formulating an integrated policy and legislative framework for the conservation, sustainable use and equitable sharing of the benefits of biological diversity; and strengthening capacity for integrating and institutionalising biodiversity conservation and management. Fifty protected areas have been identified. The Philippines' Biodiversity Conservation Priorities Project has come up with a list of conservation priority areas.<sup>24</sup>

- In Laos, management of National Biodiversity Conservation Areas is still at an initial stage. Illegal harvesting and trade of wildlife and non-timber forest products is widespread.<sup>25</sup>
- In Singapore, coral reefs are currently estimated to cover less than 30 km<sup>2</sup>.<sup>26</sup> The NBSAP of the country aims to conserve biodiversity at the genetic, species and ecosystem levels; to ensure sustainable use of Singapore's biodiversity resources; and to ensure fair and equitable sharing of benefits that result from the use of its genetic resources.<sup>27</sup>
- Thailand's national biodiversity policy aims to conserve and sustainably use biological diversity in order to achieve national ecological security and a sound resource base –the foundations of the country's sustainable development.<sup>28</sup>
- Viet Nam has designated 126 protected areas, including two Ramsar sites, four Biosphere Reserves and two pilot marine protected areas. Its total forest area is 12.3 million ha, 10 million ha of which is natural forest and 2.2 million, plantations. The country has adopted important regulations that relate to access and benefit sharing, such as the Domestic Animal Varieties Ordinance (2004) and the Plant Varieties Ordinance (2004). It is implementing a considerable number of strategies, policies and programmes addressing the CBD 2010 Biodiversity Target<sup>29</sup> including Viet Nam's National Environmental Protection Strategy to 2010 & Orientations toward 2020; Orientations of Sustainable Development in Viet Nam; National Comprehensive Strategy on Growth and Poverty Reduction; Viet Nam's National Action Programme to Combat Desertification; Management Strategy for a Protected Area System in Viet Nam to 2010; and a National Action Plan on Re-enforcing the Control in Wild Animal and Plant Trade in the period 2001–2010.<sup>30</sup>
- Myanmar has established 45 protected areas, three of which are marine protected areas. It has a target of establishing a network of protected areas covering five percent of the total area of the country by 2010. Although it has no defined plan for achieving the strategic goals and objectives of CBD, preparation of its NBSAP is under way. Public participation plays a crucial role in the country's biodiversity conservation and sustainable development.<sup>31</sup>

### Challenges and Options towards Building a Successful Policy

Developing countries need to address poverty and developmental concerns along with the rising environmental threats. In the ASEAN region, coal is well-known as the fastest growing energy source due to the increasing demands of the energy (fuel, electricity) and industrial sectors. The energy plans of the ASEAN Member States indicate the rapid growth of coal use for power generation which presents an opportunity to promote and increase cleaner coal use and trade that could bring in mutual economic benefits towards regional energy security.<sup>32</sup>

Many of the mitigation and adaptation measures set up or applied by ASEAN members, to cope with climate change, are often in direct violation of the rights of indigenous peoples. Issues include biofuel plantation expansion<sup>33</sup> and dam building under the Clean Development Mechanism, uranium extraction for nuclear power plants, and the inclusion of indigenous peoples' forests in REDD programmes without their consent. More concrete illustrations can be found in connection with the oil-palm plantations in Malaysia and Indonesia, which evicted indigenous peoples from their traditional lands.

Newer policies and their effective implementation are the keys to sustainable development. But, due to rising economic growth in the developing countries, it is becoming increasingly difficult to address both development and environmental conservation. Technological innovation and low carbon development, however, will help in decoupling economic growth from carbon emissions. For instance, improvement in industrial technology will drastically lower carbon emission intensity. A study on the Indian iron and steel industry shows that the sector has been able to reduce its emissions per tonne of steel produced by 58 percent from 1994 to 2007 mainly through a shift in technology.<sup>34</sup> While continued economic growth is needed to alleviate poverty, such growth will further place tremendous strains on the natural environment.<sup>35</sup>

A test case for the seriousness of environmental considerations in national trade and investment deliberations is the ASEAN-China Free Trade Agreement (ACFTA). Despite the considerable volume of trade within the Greater Mekong Sub-region (including trade in natural resources such as minerals, agricultural goods and wood, and in products derived from these resources, as well as an expected increase in the trade of products that fall into the most polluting sectors), however, the ACFTA does not contain provisions for cooperation on environmental problems that may arise as a result of trade liberalisation.<sup>36</sup>

### The Present Situation

Several Southeast Asian countries have been affected by floods, which has added urgency to climate change discussions in ASEAN. The recent summit in Indonesia expressed commitment to a proactive role in addressing climate change. Reflecting the majority of developing countries in the organisation, ASEAN emphasised the importance of mitigation actions to complement sustainable development. They urged developed countries to make faster and deeper emission cuts "to fulfil their historical responsibility" and called for more support for capacity building for developing countries to help them deal with climate change.<sup>37</sup>

Regional organisations in Southeast Asia have played a relatively small role in international climate change policy making.<sup>38</sup> Several ASEAN Member States have announced voluntary mitigation targets, including Indonesia (emission reduction of 26 percent from business-as-usual (BAU) by 2020, and can be increased to 41 percent with enhanced international assistance); Malaysia (reduction of 40 percent in terms of energy intensity of GDP by 2020 compared to 2005 levels); the

Philippines (deviate by 20 percent from BAU of their emission growth path); and Singapore (emission reduction of 16 percent below BAU by 2020).<sup>39</sup>

While ASEAN has been proactive in the development of adaptation-related programmes, the implementation of those programmes has been limited. The notable lack of effective mechanisms to address the issues of monitoring, reporting, sanctions and non-compliance indeed constrains the effectiveness of ASEAN's efforts to proactively address climate change. This point can adversely affect the region's ability to support adaptation activities. ASEAN is a diverse group of countries with varying levels of development. The efficiency and effectiveness of ASEAN cooperation in terms of mitigation and adaptation depend on its member countries' levels of development as well as their chosen development paths.<sup>40</sup>

## Conclusion

ASEAN countries are highly vulnerable to climate change and loss of biodiversity as a large proportion of their population is concentrated along coastlines, and heavily reliant on agriculture, natural resources and forestry for livelihoods. Seven of the ten countries have ratified both the UNFCCC and CBD, but they have been slow in taking up individual stands at CoP meetings. Three ASEAN countries are megabiodiverse.

ASEAN countries were quick in framing and implementing domestic policies on conservation and climate change. One reason for this is that they preferred to go along with the G-77/China group during the negotiations. However, they have been more willing to take collective positions in CBD than in UNFCCC. ASEAN is pursuing a broad-based approach in taking voluntary mitigation and adaptation measures.

## Notes

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- 38 *Supra*, note 13.
- 39 "ASEAN Cooperation on Climate Change". *ASEAN Cooperation on Environment*, at <http://environment.asean.org/asean-working-group-on-climate-change/>.
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