



# Unit 2 - Haze Pollution

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Course: Introductory Course on the International Legal Framework on Transboundary Air Pollution

Book: Unit 2 - Haze Pollution

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# 1. The problem

Another form of transboundary air pollution is haze, which consists of small particles of dust, smoke, pollen or tiny droplets of water floating in the air. This unit discusses smoke haze created by forest fires.

Southeast Asia is particularly confronted with forest and land fires. The worst fires accompanied by smoke haze broke out in 1997 and 1998, and had severe consequences on human beings and the environment. Smoke haze was spread across national borders and affected especially Brunei, Indonesia, Malaysia and Singapore. Twenty million people were forced to breathe potentially harmful air for extended periods. The haze pollution resulting from these fires imposed enormous economic costs on the region. It has been estimated that the 1997 and 1998 forest fires cost the region approximately \$9 billion in lost agricultural products, infrastructure repair, reduced tourism and other economic costs.

In addition to regional outfall, forest fires also have consequences for the global environment. The second largest tropical forest in the world is located in Indonesia, which was hit hardest by the 1997 fires. Therefore, the negative effects of haze smoke pose a serious threat to global biodiversity. Furthermore, scientists have warned that the fires' negative impact on global warming may be considerable. Studies suggest that fires in Indonesia could have added as much as one billion tons of carbon dioxide to the atmosphere, equivalent to Western Europe's total CO<sub>2</sub> emissions for a six month period. In 2013, a new haze crisis affected several Southeast Asian countries due to large-scale human-made fires in Indonesia.

Several factors seem to interact in causing and exacerbating the effects of forest and land fires. The *El Niño* weather phenomenon interferes with monsoon-rain patterns and thus causes severe droughts, which make land and forests more susceptible to fires. In addition, fires result from farmers' land-clearing activities. The most important factor, however, is man-made logging and deforestation. Logged forests do not retain moisture as well as primary forests, which makes them prone to larger and more extensive fires. Many of Southeast Asia's fires, therefore, are not so much a phenomenon of nature as a consequence of human intervention.

## 2. Negotiation history

Following the 1997 fires, the environment ministers of the Association of Southeast Asian Nations (ASEAN) intensified their cooperation to prevent and mitigate such devastating forest and land fires for the future. ASEAN is composed of Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam.

The ASEAN governments agreed to a Regional Haze Action Plan (RHAP) in December 1997. This plan establishes mechanisms to monitor fires and to strengthen regional fire-fighting capabilities, including timely and more accurate weather forecasts, early warning mechanisms and the development of preventive tools, such as monitoring databases and fire danger rating systems. The RHAP also calls for strict enforcement of existing laws, regulation of open fires and training of prosecution and law enforcement officers.

At the 2002 World Conference and Exhibition on Land and Forest Fire Hazards held in Kuala Lumpur, the ASEAN ministers signed the ASEAN Agreement on Transboundary Haze Pollution (the 2002 ASEAN Agreement), an important component of the long-term and broad framework of the RHAP.

The 2002 ASEAN Agreement is the first such arrangement in the world. It binds a group of contiguous states to tackle land and forest fires and the resultant transboundary haze pollution and can serve as an example for other regions of the world. Every year around the world, fires destroy approximately 500 million hectares of woodland, open forests, tropical and sub-tropical savannah, as well as 10 to 15 million hectares of boreal and temperate forest and 20 to 40 million hectares of tropical

### 3. ASEAN Agreement on Transboundary Haze Pollution

The 2002 ASEAN Agreement entered into force in 2003. Its objective is to prevent and monitor transboundary haze pollution as a result of land and forest fires within the context of sustainable development, Principle 2 and 15, the precautionary principle of the Rio Declaration.

Parties to the 2002 ASEAN Agreement undertake to manage their natural resources, including forests, in an ecologically sound and sustainable manner and to involve local communities in addressing the issue of transboundary haze pollution.

## Obligations

Specifically, the 2002 ASEAN Agreement commits its parties to:

- Cooperate in developing and implementing measures to prevent, monitor, and mitigate transboundary haze pollution by controlling sources of land and/or forest fires;
- Establish early warning systems;
- Exchange information and technology;
- Provide mutual assistance;
- Respond promptly to requests for relevant information sought by a state or states that are or may be affected by such transboundary haze pollution when the transboundary haze pollution originates from within their territories; and
- Take legal and administrative measures to implement their obligations under the 2002 ASEAN Agreement.

The parties to the 2002 ASEAN Agreement also facilitate the transit of personnel, equipment, and materials used in fire-fighting and participate in search and rescue operations through their respective territories.

The parties have to set up focal points and competent authorities that are entitled to act on behalf of the party in carrying out the administrative measures required by the 2002 ASEAN Agreement. Furthermore, each party is required to install a national monitoring centre, which communicates data about fires, fire prone areas, environmental conditions conducive to fire and data about haze pollution resulting from such fires.

The 2002 ASEAN Agreement requires the support of all members before direct action can be taken on a regional threat. This is to ensure that activities avoid violating an individual member country's national sovereignty. Firefighters or other personnel may respond to forest fires in a second country only if requested to do so by the government affected. Responsibility for protecting resources thus remains at a national level.

## Institutional arrangements

A Conference of the Parties (COP) and a Secretariat were created under the 2002 ASEAN Agreement.

The COP is responsible for reviewing and evaluating the Agreement's implementation and adopts protocols and amendments. The Secretariat arranges the meetings of the bodies established under the Agreement and acts as an interface between these bodies and the member countries. The existing ASEAN Secretariat serves as the Secretariat to the 2002 ASEAN Agreement.

The 2002 ASEAN Agreement further establishes the ASEAN Coordinating Centre for Transboundary Haze Pollution Control (Coordinating Centre), which facilitates cooperation and coordination to manage land and forest fires, in particular haze pollution arising from such fires. The Coordinating Centre provides assistance upon the request of a signatory nation once it has declared an emergency situation.

The ASEAN Transboundary Haze Pollution Control Fund (Haze Fund) is the 2002 ASEAN Agreement's main financial institution. Contributions to the Haze Fund are voluntary. The Agreement establishes an ASEAN Coordinating Centre for Transboundary Haze Pollution Control to facilitate cooperation and coordination in managing the impact of land and forest fires in particular haze pollution arising from such fires. ASEAN Secretariat and ASEAN Specialised Meteorological Centre (ASMC) co-performed the interim functions of the Centre.