The Indonesian Haze Crisis

Introduction

A haze crisis is a large-scale air pollution problem which results from fires set for the purpose of land clearance, land acquisition and as a mechanism to force inhabitants off land. South-East Asian haze is an annual problem originating from illegal Indonesian land clearance practices, done in order to resell to palm oil, pulpwood, rubber and coconut companies. These illegal measures are taken to avoid abiding to reforestation regulations. South-East Asian haze affects Indonesia as well as its neighbouring nations (most commonly including Malaysia and Singapore) and results in high economic, social, environmental and health costs.

In 2015 there was a severe haze crisis across South-East Asia which originated from the Indonesian islands of Sumatra and Kalimantan. 2.6 million hectares of Indonesian land was burned between June and October. Farmers used cheap slash-and-burn practices to illegally clear land. Although such hazes are an annual event, the 2015 fires spread more than usual due to the particularly hot weather drying out Indonesian peatland (El Nino event).

Countries with Particular Interests

Eight of the ten countries in the Association of Southeast Asian Nations (ASEAN) were affected as a result of the haze crisis. These included Vietnam, Malaysia, Singapore, Indonesia, Southern Thailand as well as areas of Brunei, Cambodia and the Philippines.

Issues

Health issues

The haze results in carbon dioxide, cyanide, and ammonium being released into the air. For the 2015 haze, the Pollutant Standard Index (PSI) revealed that some areas came close to 2,000 (anything over 300 is considered hazardous). The health-risk of the haze was so severe that residents were evacuated from their homes and transport services, schools and national events (e.g. Kuala Lumpur Marathon in Malaysia, the FINA Swimming World Cup in Singapore) were closed in certain areas.
As a result of this haze crisis, an estimated 43 million people have been exposed to the particulates of the haze. As of July 2015 half a million of cases of acute respiratory disease was attributed to the haze crisis and in total 19 people have died.

Economic issues

The wildfires and haze destroyed peatland and forests which had knock-on effects on the Indonesian tourism and trade, with agricultural and forestry sectors sustaining damages up to USD $8.8 billion. As a result, the direct and indirect costs of the 2015 fires for Indonesia is estimated at US $16.1 billion, which is double the damage of its 2004 tsunami and about 1.8% of Indonesia’s GDP.

Environmental issues

About 33 percent of the total area burned was peatland, which is problematic considering that peatland is composed of dense organic matter that releases 3-6 times more particulate matter than other types of soil when burnt. In October 2015, the emissions from the wildfires exceeded the emissions from the entire US economy (i.e. more than 15.95 million tonnes of carbon dioxide emissions per day). It is estimated that if Indonesia could stop the fires, it would meet its stated target to reduce GHG emissions by 29% by the year 2030.

The wildfires destroy flora and fauna with severe consequences, not only leading to the destruction and interruption of natural habitats, but also contributing to the amount of ozone in the air. This affects the long-term functioning of ecosystems as well as plant growth and photosynthesis. Wildfires cumulatively, have destroyed hectares of habitat for Orangutangs and other endangered species.

Furthermore, local flora’s continued exposure to such extreme circumstances could weaken their chances of recovering from future stresses. The haze also deters pollinators which in turn affects agriculture. Ultimately, it is estimated that the costs to biodiversity may exceed US $295 million for 2015.

Suggested Reading
