

EDITORIAL

A Perpetually Hazy Situation

Malaysia is a tropical country and does not officially have seasonal variation of spring, summer, fall and winter. However, in our land of perpetual summer, we are subjected yearly to a 'haze season'. Usually beginning during the dry-spell weather in June and could last till the beginning of the rainy season in October. This season also affects our neighboring countries like Singapore, Brunei, Indonesia and Southern Thailand, thus, making it a Southeast Asia regional issue. The tell-tale signs of this season are a characteristic opalescent appearance, acrid burning smell in the air, difficulty in breathing, eye irritation etc. According to Malaysia's Meteorological Department, haze happens when there are tiny particulates suspended in the atmosphere; high concentrations of the particulates will cause diminished visibility. Tiny particulates usually include atmospheric dust, smoke and vapor.

Haze is formed when there is a favorable atmospheric condition that can be due to several factors such as prolonged dry weather, a stable atmosphere, and a source of pollutants from urban or rural sources. When there is a stable atmosphere, pollutants or particulates emitted into the atmosphere are trapped within the stagnant air mass producing a hazy condition caused by the increase in particulate concentration. Haze particles can be from natural sources or anthropogenic sources which are usually from open burning, land clearing, and combustion of fuel. The regional transboundary haze problem has been reported to be caused by illegal fires used as a method of land and forest clearing. When the haze is reported to be from plantation fires and villages in Indonesia, officials say there are Indonesian, Singaporean and Malaysian companies there.

The impact from haze is usually the effect it has on reduced light and visibility. This will cause disruption in transportation, as well as the occurrence of accidents. Besides that, the haze will also have an impact on economy, mainly a decline in the tourism industry. Not only those, the particulates in the haze are likely to have global environmental effect on the climate. According to the Deputy Natural Resources and Environment Minister, in 3-5 days of severe haze, fishermen and chicken farmers from heavily affected states have estimated a total of at least RM1.3million loss due to the inability to go out to sea and the effect of the haze on animal husbandry. Studies done by UKM have also found that from 2005-2009, the haze cost Malaysia a total of RM19 million.

Another main concern is obviously the effect of haze to human health and well-being. Studies have shown that particulate matters that are less than 10 micrometers in size, including fine particles that are less than 2.5 micrometers, can penetrate deep into the lungs. Exposure to such particulate matter has been linked to premature death, difficulty in breathing, aggravated asthma, increased hospital admissions and emergency room visits, and increased respiratory symptoms. The groups of individuals that face the highest risk from haze exposure are the elderly, children, and people with respiratory problems. According to the Economic and Environment Programme in Southeast Asia

and WWF, the haze of 1997 cost the people of Southeast Asia some USD1.4 billion, mostly in short-term health costs.

In this case, prevention is indeed better than cure, as a fire once started is not easy to put out in the dry weather conditions and the effects of haze are very detrimental to human health and well-being. The latest news of intergovernmental steps taken to overcome this transboundary problem is that in the recent 5th Meeting of the Sub-Regional Ministerial Steering Committee (MSC) on Transboundary Haze Pollution, ASEAN environment ministers reached a compromise where they have agreed to recommend the adoption of a joint haze monitoring system (HMS) developed by Singapore, and the limited sharing of official maps to track down culprits who start forest fires. However, the final decision is subject to the ASEAN Leaders' approval at the ASEAN Leaders' Summit which will be held in Brunei in October 2013.

Hopefully, some concrete action will be taken and the whole issue will not be forgotten after the end of the 'haze season' this year only to be brought up again next year when we are hit with yet another haze season. It is easy for us to point fingers but we should be aware that we, as the public need to be more aware of how our resources and the environment is being managed or exploited. Irresponsible management of the environment will only cause more problems such as the haze. For now, we will have to depend on rain, natural or artificial, for a relief from the haze till the season is over and stock up on face masks.

Prof Dr. P. Agamuthu
Editor-in-Chief, Malaysian Journal of Science
University of Malaya

WenJi, A.
Editorial Assistant