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A New Series

ASEAN's Haze Shroud: Grave Threat to Human Security

By Mely Caballero-Anthony and Goh Tian

Synopsis

Transboundary haze pollution is posing significant multiple risks to the well-being and security of people in ASEAN. Beyond looking at it as an environmental issue, it is a severe threat to human security that requires serious commitment at the national and regional level.

Commentary

THE HAZE from Indonesia's forest fires has returned, and in more severe form. After the 2013 haze episode which saw the Pollutant Standards Index (PSI) level in Singapore hit an all-time high of 401, the haze this time has been worsened by the El Nino effect which has caused a prolonged dry spell in the region. No respite is in sight in the days to come and the fires and haze are set to last over a longer period.

The duration and intensity of the transboundary haze that has engulfed the region for weeks is making it a serious human security threat to populations in Indonesia, Malaysia and Singapore. The most severe effect is on health security, but there are also other economic and environmental impacts that affect the lives of the people in the region. Indonesia has been the worst hit and the immediate suffering and health impacts have pushed Indonesians to protest against forest fires. For the first time people in Pekanbaru have demonstrated against the government's response to the haze. The smog is no longer just seen as an annual problem for Singapore and Malaysia; Indonesians are finally calling on their government to recognise the health security threat to them as well.

A serious health security threat

The World Health Organisation (WHO) has warned about the health risks to long-term exposure to particulate matter in the haze, known for short as PM2.5, which are microscopic particles of less than 2.5 micrometres in size. Inhalation of PM2.5 is considered more severe than other pollutants such as PM10 - which are less than 10 micrometres in size.

When the 24-hour PSI rose above 300 on 25 September 2015, this caused primary and secondary

schools to close in Singapore. The corresponding 24-hour PM2.5 levels were between 251 to 350 micrograms per metre cube ($\mu\text{g}/\text{m}^3$) - way above the WHO safe guideline level of 25 $\mu\text{g}/\text{m}^3$.

While concern over the level of exposure from the current pollution also led to closure of schools in affected states in neighbouring Malaysia, the situation in Indonesia itself has reached alarming proportions. Parts of the Indonesian province of Kalimantan and Sumatra recorded PSI levels above 1000, with Central Kalimantan hitting a record of 1995 on 23 September 2015.

Haze-related medical conditions include acute upper respiratory tract infection, allergies, worsening of asthma and bronchitis, acute conjunctivitis and eczema. According to the Jakarta Post, there have been a total of 53,428 reported cases of respiratory infections in South Kalimantan, 34,846 in Pekanbaru, 22,855 in South Sumatra, 21,130 in West Kalimantan and 4,121 in Central Kalimantan.

These conditions exclude the potential long-term effects of the haze such as increase in mortality, respiratory and cardiovascular diseases and morbidity as well as reduction in life expectancy. Children, who are more vulnerable to the ill effects of haze may suffer from reduced lung development and develop diseases such as asthma.

Socio-economic impact

The socio-economic impact of environmental pollution cannot be ignored, particularly in communities in the region with less adaptive capacities due to lack of resources, among others, to protect themselves against the serious health impact from the haze. The burden of healthcare cost becomes more acute not only to affected people but also the governments.

The economic impacts are also significant. In Indonesia, businesses are affected not only by increased absenteeism but by companies having to close due to the sheer intensity of the haze. Tourism in the region has taken a hit and airports in Malaysia and Indonesia had to be closed. At least 20 airports in Indonesia have been closed since the start of the haze episode.

Outdoor eateries, attractions and sports have also taken a hit. The haze crisis in 1997 cost Southeast Asia an estimated USD 9 billion. While the economic impacts of the 2013 and 2015 haze episodes have yet to be quantified, they are likely to be more significant.

Addressing the human security threat: Blueprint needed

The haze crisis has reached a point where it is no longer one country's problem. It affects the health and human security of everyone. Haze is now as much a human security as well as a national and regional security threat. It is time to tackle it as one of the most immediate, challenging and perennial human security issues in the region. This requires no less than credible commitments and focused efforts at the national and regional levels.

While severe haze, with PSI levels in the hazardous range, can have very significant impacts on mortality as well as respiratory and cardiovascular diseases, it is surprising why outbreaks of haze-related illnesses are not considered as health crises, with regional implications.

Since transboundary haze is likely to be a long term problem in Southeast Asia, systematic health preparedness measures are a critical part of transboundary haze risk management in the region. The World Health Organisation (WHO) should introduce standard government response guidelines to long-term and severe exposure to haze. Response guidelines and PSI indicator levels can help governments to implement measures such as the activation of local evacuation plans based on the PSI, as well as the designation of evacuation centres and the identification of vulnerable groups which require immediate shelter.

WHO guidelines and standards will also help to rally international and local actors to provide immediate aid such as low-cost air filtration fan systems for schools with young children and face masks in the worst-hit areas in the region. Basic health care services to address the haze-related health problems can also be ramped up.

In this regard, ASEAN can do its part by establishing regional health preparedness guidelines for

responses at different PSI levels. A blueprint on the emergency health response measures will be helpful for member states as well as provinces in affected regions. Medical preparedness in the region should also be incorporated into national and local emergency crisis preparedness plans, on top of firefighting systems and forest fire prevention management.

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