

COVID-19 AND HAZE: IMPLICATIONS ON HEALTH, FIRES, AND SOCIAL JUSTICE

By Dr Helena Varkkey, University of Malaya

POLITICAL ECOLOGY IN ASIA SEMINAR

Haze and Social (In)Justice in Southeast Asia: Past experience and what next?

*International Conference on New Research in International Development,
Human Rights, and International Relations at a Time of Disruption*

Air Quality and Public Health

- SARS in China: death rates were twice as high in highly polluted areas
- COVID-19:
 - Acute respiratory distress syndrome has been a major cause of COVID-19-related deaths
 - Italy
 - more industrial northern regions have seen higher death rates of 12 percent compared with about 4.5 percent in other parts of the country
 - United States
 - increase in PM2.5 concentrations of just 1 microgram per cubic meter was associated with a 15 percent increase in Covid-19 deaths
 - US counties that have experienced worsening air pollution over the past 15 to 20 years have a substantially higher mortality rate (prolonged exposure over time)

Air Quality and Public Health in SEA

- In 2019, all ASEAN countries except Brunei was in the top 60 list of countries with the worst air pollution
 - baseline pollution caused by a mix of urban and industrial emissions
 - seasonal air pollution or 'haze' related to forest fires and agricultural activity'
- Long-term health consequences:
 - PM2.5 particles have the long-term effect of weakening one's respiratory, cardiovascular and immune systems
 - A 2016 study estimated that more than 100,000 additional deaths would have occurred in the southern ASEAN sub-region, both during and after the 2015 haze season
- In the context of COVID-19, someone with already weakened lungs and respiratory tracts has a higher risk of not just getting infected and but also suffering worse symptoms

Air Quality and COVID-19

- Early restrictions led to almost immediate improvement of environmental conditions
 - Malaysian Department of Environment reported an improvement in air quality in major cities two weeks into the MCO due to reduced vehicle emissions, industrial stack emissions, and open burning
 - In Jakarta, air quality has improved markedly as people commute less
- However, as countries are now loosening restrictions, conditions are returning to 'normal'
 - In China, as people start traveling again and industries restarting, air pollution levels are bouncing back

Haze Threat in the Context of COVID-19

- Moderate risk of a severe transboundary haze incident in 2020
 - Dry season is expected to be milder than the unusual drought conditions in 2019
 - Indian Ocean Dipole and ENSO are projected to be neutral into the second half of 2020
 - ASMC forecasts near-normal to slightly-above-normal rainfall for Indonesia, Malaysia, and Singapore
- However, forest clearing and fires are still ongoing
 - Fires raging in northern Thailand, causing severe haze pollution in the northern ASEAN sub-region
 - In Indonesia, there have been reports that a new project to clear massive swathes of rainforests for oil palm in Papua is currently being pushed through, despite being mired in controversy

COVID-19 Impact on Haze Risk (South-SEA)

Expenditure

- COVID-19 response is tapping into disaster relief funding, which means that those funds may not be available in the event of a haze crisis

Resources

- COVID-19 has stressed healthcare systems and led to an increased demand for personal protective equipment. A major haze incident in 2020 would put further strain on healthcare and the supply of N95 masks

Restoration

- BRG's efforts to rehabilitate ecosystems and prevent fires have been impacted

Enforcement

- Less capacity is available to prevent illegal forest encroachment and burning. Plantation companies warn that restrictions have made it more difficult to patrol their areas

Response

- Social distancing measures are impacting the training and work of firefighting teams

Engagement

- In-person community engagement (by government, NGOs and companies) for fire and haze prevention has been suspended, as meetings and large gatherings are no longer possible

Economic Implications of COVID-19

- Smallholders
 - less able to request assistance with mechanical land clearing and soil compaction (equipment and crews may not be available), so some may resort to the use of fire
- Corporate plantations
 - COVID-19 resulting in weak export volume and low commodity prices, especially palm oil and biofuels
 - Large growers may be able to continue business-as-usual
 - BUT small/medium growers may have different considerations:
 - Either slow down expansion to ride out the crisis
 - OR continue/increase land clearing in the hopes of increasing profits, while resorting to slash and burn practices as a cost-saving measure
 - Small/medium growers fall within the 'gray area' of sustainability..

Implications for Social Justice

- Haze is already a serious social justice issue
 - Poorer people are less able to protect themselves from haze (expensive N95 masks, access to medical care, staying home from work, safe accommodation)
 - Areas most affected by haze are usually far away from administrative centres (eg Sumatera and Kalimantan in Indonesia, Northern Thailand)
- Haze, COVID-19, and social justice
 - COVID-19 responses have already highlighted issues of social justice (social distancing, ability to WFH)
 - Those impacted most will be the poorer, more rural folks

Conclusion

- Too early to determine the full implications of COVID-19 on fires and haze, but if COVID-19 persists, the consequences will be more severe
- Should a major haze incident occur in the midst of COVID-19
 - Added public health burden
 - Poor air quality exacerbating respiratory ailments
 - Rural livelihoods: resorting to more fire-risk behaviour (vicious circle)
- Governments and other stakeholders should take a stronger social justice approach in response to both haze and COVID-19 to mitigate these risks

THANK YOU!

Contact me: helenav@um.edu.my

Resources/Additional Reading:

Varkkey, 2020 (<https://www.asiaglobalonline.hku.hk/air-pollution-and-covid-19-mortality-considerations-southeast-asia>)

Singapore Institute of International Affairs, 2020 (<http://www.siaonline.org/wp-content/uploads/2020/06/SIIA-Haze-Outlook-2020.pdf>)