Forum: World Health Organization

Issue: Mitigating the Public Health Impacts of Air Pollution Across Southeast Asia

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Introduction:

Air pollution is currently established as the world's greatest environmental health risk, causing approximately 7 million premature deaths annually, according to the State of Global Air report of 2025. Southeast Asia is considered most at risk, with the region acting as a concentrated area affected directly by rapid industrialisation and production dependence from other countries. According to the World Resources Institute (WRI) and the World Health Organisation (WHO), 99% of the population in this region lives in areas where the air pollution exceeds the WHO's safe air standards. Central to the issue is not the lack of cooperation, but rather the lack of ability for countries to align their economic expansion and business demands with clean air goals. This is then accentuated by the reliance on nonconfrontational, consensus-based approaches that do not punish noncompliance, on the basis of accentuating ASEAN collaboration.

The pollution evidently has massive impacts on public health, disproportionately affecting the youth and elderly. Most notably, life expectancy in the region is reduced by about 1.5 years mainly due to the air pollution, creating and cardiovascular ilnesses. Research has also suggested that long-term exposure to polluted air can lead to cognitive decline and higher risks of neurodegenerative diseases, including dementia.

It is important to note that when discussing this issue and coming up with solutions or possible frameworks, ethical dilemmas surrounding whether to prioritise people or businesses can arise. Furthermore, although the issue is directly linked to the region of Southeast Asia, this issue is at its root an international one, as much of the air pollution created by factories in these regions is due to external dependencies. This is to say that all delegates should come together to ensure proper solutions can be created. Hopefully, this research report will give you some more insight into this issue and how it may be tackled, allowing you to discern possible solutions to mitigate public health impacts of air pollution in Southeast Asia.

Definition of key terms:

Association of Southeast Asian Nations (ASEAN): A geopolitical and intergovernmental organisation established in 1967 with headquarters in Jakarta (Indonesia) to promote regional collaboration, economic growth and stability among the nations of Southeast Asia. The members are Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Timor-Leste, and Vietnam.

ASEAN Working Group on Environmentally Sustainable Cities (AWGESC): A body under ASEAN that focuses on improving environmental governance, fostering environmental initiatives, and implementing strategies for cleaner cities.

Haze episodes: Recurring, seasonal pollution crises that are characterised by the suspension of dense particulate matter (often smoke and dust) in the atmosphere, often obscuring and reducing visibility.

United Nations Environment Programme (UNEP): The leading global authority on environmental issues, established in 1972 to coordinate environmental action within the United Nations. It works largely on issues of climate change, biodiversity loss and pollution.

Background:

Air pollution in Southeast Asia is driven by a combination of issues, including the burning of biomass, rapid industrialisation, vehicular traffic, coal-fired power plants and the seasonal weather patterns. Regional haze episodes, defined above, are often caused by agricultural burning (clearing crop residues to prepare fields for the next crop cycle) and regional forest fires, the origin of which is highly contested. Environmental groups have argued that these have started due to companies and firms utilising illegal “slash and burn” methods to be able to maximise profits, and regulation enforcement is often weak due to political ties with these businesses. Rapid industrialisation, driven by foreign expansion, has led to a reliance on fossil fuels to meet supply demands from Western countries. The rapid industrialisation has also influenced the rapid urbanisation, which has led to traffic congestion of millions of cars daily, directly contributing to high levels of pollution in the centre of large cities. Moreover, this industrialisation has also led to a reliance on heavy industrial power generation, although there

has been a push to try to incorporate renewable energies, fossil-fuel plants are still prevalent. Finally, during the dry season, low wind movement confines the air, trapping pollutants in urban areas, leading to dangerously high concentrations of pollutants.

Household air pollution:

It must also be considered that household air pollution also has an impact on the overall environmental health risk, as it was estimated to be responsible for under 3 million deaths in 2021. For cooking and heating, households utilise firewood, coal and agricultural residue, often in households unequipped for proper pollutant dispersion. Additionally, ventilation is often not possible as people fear the risk of allowing outdoor pollutants to come into their homes. Furthermore, due to cultural roles in cooking, this means that children and women are disproportionately affected by household pollutants. It is clear that the combination of ambient air pollution and household air pollution leads to more extensive health impacts as people are constantly in contact with pollutants, increasing the risk of health issues.

Health impacts:

Air pollution has been declared a critical health crisis, with women, children, and the elderly being disproportionately affected and at risk. Air pollution has been linked to 41% of all noncommunicable disease deaths in South Asia. According to Health Policy, this “increases the risk of heart disease, strokes, lung cancer, chronic lung disease, and type 2 diabetes. Household air pollution is another risk factor for deaths; in the Lao PDR, 13% of all deaths in the country are attributed to it. When looking at deaths in children under 5 attributed to household air pollution across Asia, 91% of deaths occurred in Southeast Asia. Overall, in the region, 25% of deaths for children under the age of 5 are attributable to air pollution, and in those over 70, it is 20% of deaths. Between 2010 and 2021, there has been an 88% increase in deaths related to pollution impacts.

Economic implications:

Better air conditions not only reduce pressure on the health sector and public services but have also been linked to stronger economies. As the general public becomes healthier, work productivity is able to increase, and tourism can grow exponentially, as a better environment allows for natural landscapes to flourish. Other economic sectors can also thrive, notably agriculture, as air pollution harms crops, decreasing overall yields and yearly outputs, causing

expenses to increase. Improving air quality is not only for the benefit of the individual but can also improve businesses for firms and the economies of entire countries or nations.

Timeline of Key Events

September 7th: International Day of Clean Air and Blue Skies was created to raise awareness and promote international collaboration to address the global issue of air pollution.

June 10th 2002: ASEAN Agreement on Transboundary Haze Pollution, an agreement further explained under “Relevant UN treaties, resolutions and reports”.

June 4th 2019: ESCAP/RES/75/, a resolution further explained under “Relevant UN treaties, resolutions and reports”.

March 1st 2024: UNEP/EA.6/L.13, a resolution further explained under “Relevant UN treaties, resolutions and reports”.

March 20th 2025: Clean Air and Climate Solutions for ASEAN**,** a UN report further explained under “Relevant UN treaties, resolutions and reports”.

October 22nd 2025: The State of Global Air report that highlights the issues of air pollution, indicates that 9 in 10 air pollution deaths are due to noncommunicable diseases, pressuring states to get involved.

September 6th 2024: How Asian countries could save lives, boost growth by tackling air pollution, a series of UN reports further explained under “Relevant UN treaties, resolutions and reports”.

Major parties involved:

Thailand: The Thai government has continuously supported regional cooperation to address the issue of air pollution in Southeast Asia, being one of the main actors within ASEAN. In October 2024, they launched the CLEAR Sky Strategy (2024-2030), a framework dedicated to combating haze while addressing the environmental and health impacts. Thailand has also put in place bans on agricultural open burning, while offering incentives for farmers to utilise their

agricultural waste. They continue to monitor weather stations and air control stations to share information on air quality and ensure responses can be initiated.

United States of America: The US government is a prominent Western actor, as it is not only one of the major countries relying on ASEAN nations for supply chains as a trading partner, but also partners with the nations to address air quality. USAID has employed multiple initiatives to bring together NGO's and local governments to fight air pollution issues. However, it must be noted that under the new Trump administration, USAID-funded environmental initiatives have been suspended, causing a funding issue for many environmental groups. They do continue to support the ASEAN 2030 Agenda for Sustainable Development, acknowledging the issue of air pollution and its health impacts on the public in the region.

European Union: The EU is often involved in strategic partnerships and projects with ASEAN to ensure health outcomes improve while reducing air quality issues. The Southeast Asia-Europe Joint Funding Scheme (SAEJFS) funds research on environmental issues, such as climate change, and promotes solutions for the improvement of air quality. The EU has outlined that they believe increased funding for environmental schemes and stricter standards or regulations are central to tackling the issue.

Australia: Australia has been very open about aiding the ASEAN through scientific collaboration aimed at addressing the air pollution issues and quickening the transition to cleaner or greener energy. An example of one project is the CANBREATHE project partnering with Thailand, Indonesia, and others to study the impact of forest fire smoke to implement proper policies and ensure protection of those most vulnerable.

Relevant UN treaties, resolutions, and reports:

ASEAN Agreement on Transboundary Haze Pollution (June 2002): Drafted with assistance from the UNEP, it is a binding agreement addressing matters relating to mitigating forest fire smoke following the hazardous and suffocating smog that plagued the region in the late 1990's.

UNEP/EA.6/L.13 (January 2024): A draft resolution titled "Promoting regional cooperation on air pollution to improve air quality globally", urging member states in Southeast Asia, and

across the board, to cooperate and strive for an improvement in air quality and reduce air pollution.

ESCAP/RES/75/4 (June 2019): A passed resolution titled “Strengthening regional cooperation to tackle air pollution challenges in Asia and the Pacific” created to address the issue as a regional challenge and promote collaboration between governments and NGOs.

Clean Air and Climate Solutions for ASEAN (March 2025): A report identifying 15 measures that could reduce pollution levels, aiming to do so before 2030, while strengthening existing policies and calling for communities to work together.

How Asian countries could save lives, boost growth by tackling air pollution (September 2024): UNSDP and UNEP collaborated on a series of reports focusing on Cambodia, Indonesia, and Thailand, outlining how countries could save lives by 2030.

Previous attempts to solve the issue:

ASEAN / United Nations 2030 Agenda for Sustainable Development: Through the ASEAN Community Vision 2045, the aim is to accelerate progress towards the UN Sustainable Development Goals (SDGs). ASEAN collaborates with UNDP and UNESCAP to ensure governments are being held accountable and continue to work together towards the 2030 targets. This includes ensuring sustainable economic growth while enhancing community resilience and resistance to environmental disasters and combating climate change.

ASEAN Specialised Meteorological Centre: It was established in January of 1993, hosted by the Meteorological Service Singapore, to monitor fires and assess the implications of transboundary haze. It also provided seasonal climate predictions, allowing for ASEAN members to respond correspondingly. The data collection continues to utilise technological and digital advances in the environmental world to strengthen the research. However, nowadays it is mainly used for its meteorological data and has not seemed to actually push countries to utilise the data for cooperation on major weather or environmental issues.

Possible solutions:

Promoting the issue globally: Globalising the issue and expanding awareness may allow for people to become more aware of and educated on the issue, subsequently increasing collaboration and involvement from other countries and NGOs. This would pressure governments to enforce air quality standards, as the public would be more wary of the pollution and its effect on their health. Furthermore, it would make the public more likely to collaborate and work together to fight the issue, starting new projects or groups. Furthermore, highlighting the economic health costs of air pollution and air quality could incentivise the government and motivate businesses to adopt cleaner policies.

Addressing core issues: It is important to highlight that the air pollution stems from a wide range of sources, and tackling these individually could reduce the overall effect on the public. Ambient pollution from biomass burning, for example, could be tackled by implementing frameworks that monitor businesses and farmers, ensuring that they adhere to restrictions. As well, tackling household air pollution is essential, as it accentuates the issue, so creating regional initiatives to aid and address the structural issues of homes, lack of ventilation, and reliance on coal-burning cooking could improve the health of the public.

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