



ASEAN MINISTERIAL MEETING
ON THE ENVIRONMENT

AMME

**Hwa Chong Model
ASEAN Summit 2024**



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Welcome Letter

Dear Delegates,

Warmest welcomes to the AMME community of the Hwa Chong Model Asean Summit (HCMAS)'24! AMME, short for ASEAN Ministerial Meeting On The Environment, focuses mainly on environmental contention throughout the region, as while sovereign nations all have defined territories and borders, all nations must deal with environmental problems, all too relevant in this day and age. To live and let live. AMME is ASEAN's commitment to co-existing with mother nature, bringing leaders across ASEAN together, not just to fight for their own interests, but also for those of children yet unborn. The directors of this committee, Xi Cheng, Rodney, Rui Yi, Alfredo Alexius and Peter all congratulate you for your participation in AMME and hope for a smooth and enjoyable HCMAS'24. This infosheet provides all delegates with necessary information regarding the two topics at hand, but delegates are still recommended to research their countries' stance regarding the topic, for additional insights and a deeper understanding of the issue.

Our first topic this year will be the issue of transboundary pollution, a problem that we are all too familiar with in South East Asia, the thick air, the poor visibility, the turmoil that unfolds as citizens rush to purchase N95 masks... Accountability and management of haze are issues that delegates must address for a smooth resolution to this lasting problem in ASEAN.

Our second topic will be the issue of developing sustainable economies. ASEAN is a rapidly growing economy, and the association has set out green targets to achieve such goals in a sustainable way. Unfortunately, it is currently falling far behind as many nations struggle with adopting current green technologies due to the domestic climate. From politics, to money, and simple geography, delegates will have to come up with innovative ways for ASEAN nations to collaborate in overcoming such challenges.

The directors wish all delegates success in their path to find appropriate solutions to the issue, and hope that delegates will have a fun and fulfilling experience in their time in HCMAS. All the best!

Dais Introduction

Huo Xi Cheng (Director)

Xi Cheng is a Secondary four student from Hwa Chong Institution's Humanities Programme. He is overjoyed to chair the most interesting, contentious and fun council in HCMAS, AMME. His hobbies include sarcasm, using ChatGPT, and orchestrating his string quartets. He hopes all delegates will have a fantastic time at HCMAS and enjoy the catered food and the fantastic learning opportunities this conference brings.

Wong Sui Rui Rodney (Assistant Director)

Rodney is an IP student and entered the MUN circuit last year through the conference. He is overjoyed to have this opportunity to come full circle and hopes to nurture the next generation of MUNners. Model United Nations (MUN) has given him a unique opportunity to see the world from a whole new perspective instead of just complaining from the ground and having to find solutions. He hopes that delegates will have a fun and engaging conference while doing the same. Outside of MUN, his interests include Chinese Literature, Songwriting and Singing. With dreams to forge a career in music, he is friendly and approachable, just don't ask anything council related.

Kuah Rui Yi (Assistant Director)

Rui Yi is a Year 3 student from Hwa Chong Institution. As a Science and Math -Bicultural Studies Dual Track Programme student, he enjoys chronic sleep deprivation that results from his endless commitments. On the rare occasion that he's free, he enjoys doom scrolling on social media, listening to English pop music and watching Netflix shows. He looks forward to seeing delegates engage in lively debate, and hopes that they will enjoy their time in HCMAS.

Alfredo Alexius (Community Member)

Alfredo is a Year 4 student from Hwa Chong Institution with a deep passion for economics and music. Alfredo expresses deep passion in exploring more fields outside of the school syllabus while finding ways to do minimal school work for maximum returns. Alfredo also values maximising time for the most returns. Furthermore, Alfredo writes songs and involves himself in many musical events to learn, socialise and improve himself. He also can play most pop songs by ear or learn it on the spot. Alfredo looks forward to seeing the long lasting friendships forged in HCMAS.

Ng Toh Tok, Peter Paul (Community Member)

As a secondary 3 student from the Science Math Talent Programme with a weird obsession with History and Social studies, Peter expresses interest in taking on extra commitments such as HCMAS, despite his lacking English scores and multiple unsubmitted assignments. In his free time, he enjoys learning about fallacies and different courses of an argument, not from books from the library but from the uneducated comment section of a TikTok video. He hopes to have an enriching experience in AMME, and has full confidence in the delegates to provide that.

Community Introduction

The ASEAN Ministerial Meeting on Environment (AMME) was established in 1981, against a backdrop of growing environmental concerns and greater awareness of the natural world on which humanity relies. It aims to provide a platform for ASEAN member nations to collaborate on shared environmental issues and dispense guidance on how to do so within the turbulent world of today.¹

At its core, AMME seeks to protect and preserve the rich natural environment that all ASEAN member states possess and reduce the impact of pollution and climate change on the citizens of member-states. To this end, declarations like the 1985 Agreement on the Conservation of Nature and Natural Resources, the 1995 Cooperation Plan on Transboundary Pollution

With the increasing environmental challenges facing the world and ASEAN as a whole today, its role as a mediator and platform has never been more important. Yet as a consensus-based commission, the AMME requires declarations to be agreed upon by all representatives of member states to be passed. Therefore, compromise within AMME is an inevitable fact of necessity—yet nations must also seek to protect their own interests. Such a balancing act has never, and never will be, easy—but it will also be intellectually stimulating and mentally enriching.

¹(ASEAN Secretariat, 2021)

Topic 1: The Question Of Regulating Transboundary Haze

Topic Introduction

The issue of transboundary haze has been plaguing South East Asia since the late 1990s. This issue is one that, as its name suggests, is not contained by the geographical boundaries and plagues multiple nations in ASEAN. Several Southeast Asian countries are affected by haze on a regular basis, notably Indonesia, Malaysia, Singapore, and Brunei, and to a lesser extent, Thailand, Vietnam and the Philippines². These airborne pollutants, which can include soot particles, carbon dioxide and other toxic gases, cause not just a litany of respiratory and other health issues in the nations affected by haze, especially to the young and old, and in severe cases, death -- studies have shown that there is a consistent link between exposure to transboundary haze and acute psychological, respiratory, cardiovascular, and neurological morbidity and mortality³. There is also a massive socioeconomic cost associated with exposure to haze and the preventative measures that governments have to take to mitigate its harmful effects.

The cause of most of the haze lies mostly in peatland fires, whether caused by slash-and-burn practices for agriculture or naturally occurring forest fires. Whilst the latter is unfortunately difficult to prevent, the former can be minimised through efforts by governments and ASEAN alike. However, a constant challenge to the successful implementation of preventive measures is the difficulty of regulating and catching violators of said measures. The practice of slash-and-burn is commonly employed by farmers, especially in nations with large agriculture sectors, as it is a cheap and efficient method to clear up farmland to create fertile soil for growing crops. Despite efforts from governments to crack down on these practices, corruption and difficulty of enforcement have limited its success⁴. ASEAN too has attempted to resolve this issue, but the commitment of ASEAN to uphold sovereignty has restricted and made it difficult for member states to take unilateral action on a foreign entity causing pollution which affects their territory, due to the nature that

² Koh, JaimeHo, Stephanie. n.d. "Haze Pollution."

<https://www.nlb.gov.sg/main/article-detail?cmsuid=0a5ea199-00be-4eda-b017-9cc0553c8819>.

³ ——. 2019b. "Acute Health Impacts of the Southeast Asian Transboundary Haze Problem—A Review." *International Journal of Environmental Research and Public Health* 16 (18): 3286.

<https://doi.org/10.3390/ijerph16183286>.

⁴ Chow, By Martina. 2020. "Southeast Asia's Transboundary Haze: Obstacles to a Regional Solution | Global Risk Insights." Global Risk Insights. September 20, 2020.

these pollutants may travel across geographical boundaries. Furthermore, it complicates cooperation efforts due to the difficulty of cooperating with member states where such practices are employed, as even though these practices are illegal, it may be practically difficult to crack down on these practices without repercussions⁵.

General Background

In recent years, transboundary has become a serious issue, recurring almost annually around ASEAN. Beyond its environmental impacts, the haze also has serious socio-economic effects. While only a few countries are responsible for causing transboundary haze, the issue has the potential to negatively impact the health of people all around ASEAN. Transboundary haze has been estimated to cause a 20% rise in hospitalisations for asthma in Singapore, and the 2015 haze episode cost Indonesia an estimated 16.1bn USD⁶.

Inhalation of fine particulate matter can lead to respiratory problems, such as shortness of breath, coughing and wheezing. These symptoms tend to impact those with existing health conditions even harder, such as asthma and COVID-19, potentially worsening these existing conditions and leading to serious health complications, such as deep penetration of the lungs. These particles can also enter the bloodstream, causing cardiovascular ailments, such as heart attacks and high blood pressure. Lastly, even if one's body is relatively healthy and fit, the irritation to lungs and eyes over a long period of time can easily accumulate into susceptibility to chronic health issues such as pneumonia. On a societal level, constant exposure to haze can lead to reduced quality of life due to reduced visibility and air quality, placing a burden on healthcare providers as well as stopping services such as schools and outdoor activities. This may influence people to immigrate out of the country and reduce its ability to function as a port or hub, weakening the country's global position.

⁵ ———. 2020b. "Southeast Asia's Transboundary Haze: Obstacles to a Regional Solution | Global Risk Insights." Global Risk Insights. September 20, 2020.
<https://globalriskinsights.com/2020/09/southeast-asias-transboundary-haze-obstacles-to-a-regional-solution/#>

⁶ National University of Singapore. Transboundary haze in Southeast Asia: What's peat got to do with it?, April 1, 2022.
<https://news.nus.edu.sg/transboundary-haze-in-southeast-asia-whats-peat-got-to-do-with-it/#:~:text=In%202015%2C%20a%20protracted%20haze,the%20country%20US%245.2%20billion.>

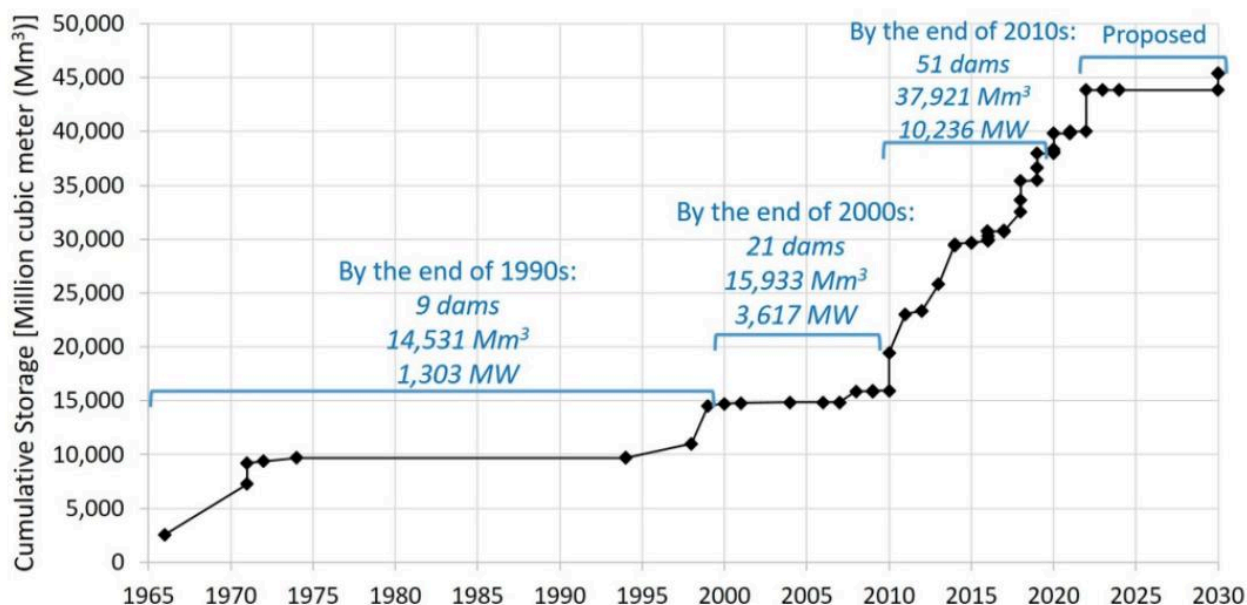


Fig 1.2: While haze may not be the only reason for the increased water pollution, it is a big contributor to the issue.⁷

This issue lends itself to the next issue: pollution. Before the 1990s, haze pollution caused by land and forest fires in Indonesia had been largely dealt with at the sub-regional or bilateral levels between directly affected countries, namely Brunei, Indonesia, Malaysia and Singapore. However, dangerous levels of smoke haze blanketing maritime Southeast Asia in the mid-1990s transformed the largely sub-regional transboundary pollution issue into an ASEAN-wide concern.⁸ Now, more Northern countries such as Laos will now have to prepare and deal with transboundary pollution, indicating the extent of the issue. The Mekong River ecosystem is on the verge of irreversible collapse due to the accumulative effects of transboundary pollution such as the deposition of particulate matter when haze is exposed to the river. As the river approaches the sea, the Mekong Delta, home to 17 million Vietnamese, yields more than half of Vietnam's rice production and a third of its GDP⁹, showing how detrimental haze is not only to the environment; but also to the lives of millions.

⁷ Sor, Ratha, Peng Bun Ngor, Savoeurn Soum, Sudeep Chandra, Zeb S. Hogan, and Sarah E. Null. "Water Quality Degradation in the Lower Mekong Basin." *Water* 13, no. 11 (May 31, 2021): 1555. <https://doi.org/10.3390/w13111555>.

⁸ Onn, Lee Poh. 2021. "2021/69 'the Mekong River Ecosystem in Crisis: ASEAN Cannot Be a Bystander' by Hoang Thi Ha and Farah Nadine Seth - ISEAS-Yusof Ishak Institute." ISEAS-Yusof Ishak Institute. May 19, 2021. <https://www.iseas.edu.sg/articles-commentaries/iseas-perspective/2021-69-the-mekong-river-ecosystem-in-crisis-asean-cannot-be-a-bystander-by-hoang-thi-ha-and-farah-nadine-seth/>.

⁹ "The Mekong River - Survival for Millions | GRID-Arendal." n.d. <https://www.grida.no/resources/5630>.

ASEAN nations have been trying individually to institute policies to mitigate the harms of transboundary haze. For example, the Transboundary Haze Pollution Act passed by Singapore in 2014 seeks to deter firms or entities in or outside Singapore from carrying out activities that contribute to Transboundary haze which will affect Singapore¹⁰. Despite issuing various legal notices to businesses regarding fires on Singapore's lands, progress has been slow due to the complications regarding sovereignty as well as the ambiguity of the act itself. For example, it is difficult to attempt to prosecute a company from a foreign nation in one's own national courts. The act also does not dictate clearly what is the threshold for when countries can and cannot seek legal recourse on transboundary haze they experience, making it difficult for it to take tangible effect¹¹.

ASEAN as a whole, over the course of 25 years, has also involved itself heavily in trying to reduce the amount of transboundary haze inflicted upon its members. Some key milestones across the years includes the 1985 Agreement on the Conservation of Nature and Natural Resources¹², the 1995 Cooperation Plan on Transboundary Pollution¹³ and the follow-up Haze Technical Task Force, and the establishment of the ASEAN Ministerial Meeting on Haze in 1997, which gave rise to the Regional Haze Action Plan (RHAP). This initiative as well as aforementioned Haze Task Force focused mainly on monitoring the levels of haze as well as coordinating and sharing information between countries, to foster international cooperation and coordinated policies and regulations. However, crucially, all of these were soft law institutions, (i.e, they are not legally binding), and so had no legal repercussions or obligations for polluting member states. This was a problem, as it was in the monetary incentives for polluting member states to ignore these legislations in favour of supporting the economically more viable choice to simply cause pollution through slash and burn methods.

¹⁰ Chan, Francis. 2016. "Singapore's Environment Minister Masagos Zulkifli Says Errant Firms Must Be Stopped From Producing Haze." *The Straits Times*, January 20, 2016. <http://www.straitstimes.com/asia/se-asia/singapores-environment-minister-masagos-zulkifli-says-errant-firms-must-be-stopped-from>.

¹¹ Asean Cooperation on Transboundary Haze Pollution. Accessed February 14, 2024. https://www.jstage.jst.go.jp/article/ceispapersen/2022/2/2022_1/_pdf.

¹² "ASEAN Agreement on the Conservation of Nature and Natural Resources," July 9, 1985. <https://asean.org/asean2020/wp-content/uploads/2021/02/natural-resource-agreement.pdf>.

¹³ "ASEAN Co-Operation Plan on Transboundary Pollution." ASEAN Economic Bulletin 12, no. 1 (1995): 89-95. <https://www.jstor.org/stable/25770582>.

Even when ASEAN tried to address the issue of lack of authority by proposing and adopting a legally binding dimension to the RHAP, calling on member states to cooperate in preventing, monitoring and mitigating against transboundary haze, transboundary haze continues to be a problem. This is because all these agreements are underpinned by an adherence to the 'ASEAN Way', which seeks non interventionist approaches -- This causes a conflict of to what extent active intervention by governments to tackle haze is necessary to effectively handle the issue. Delegates can work around this conflict and seek an active middle ground.

Key Terms and Definitions

Terms	Definition
Transboundary haze pollution	Haze pollution whose physical origin is situated wholly or in part within the area under the national jurisdiction of one Member State and which is transported into the area under the jurisdiction of another Member state. ¹⁴
Pollutants Standard Index (PSI)	The higher the PSI, the more polluted the surrounding air is. PSI is measured through the concentration of six pollutants: particulate matter, fine particulate matter, sulphur dioxide, carbon monoxide, ozone, and nitrogen dioxide in the atmosphere ¹⁵ .
Haze	It is considered 'haze' when the PSI of a particular body of air reaches or exceeds 100. ¹⁶ The substances in haze can adversely affect one's physical health when detected in high enough concentrations. ¹⁷

¹⁴ "Transboundary Haze Pollution Definition | Law Insider." n.d. Law Insider.

<https://www.lawinsider.com/dictionary/transboundary-haze-pollution#:~:text=Transboundary%20haze%20pollution%20means%20haze,jurisdiction%20of%20another%20Member%20State.>

¹⁵ Computation of the pollutant standards index (PSI). Accessed February 17, 2024.

[https://www.haze.gov.sg/docs/default-source/faq/computation-of-the-pollutant-standards-index-\(psi\).pdf.](https://www.haze.gov.sg/docs/default-source/faq/computation-of-the-pollutant-standards-index-(psi).pdf)

¹⁶ www.nea.gov.sg. "Managing Haze." Accessed February 17, 2024.

[https://www.nea.gov.sg/our-services/pollution-control/air-pollution/managing-haze.](https://www.nea.gov.sg/our-services/pollution-control/air-pollution/managing-haze)

¹⁷ Moh.gov.sg. "FAQs Haze Health Advisory," 2019.

[https://www.moh.gov.sg/resources-statistics/educational-resources/haze/faqs-on-haze-health-advisory.](https://www.moh.gov.sg/resources-statistics/educational-resources/haze/faqs-on-haze-health-advisory)

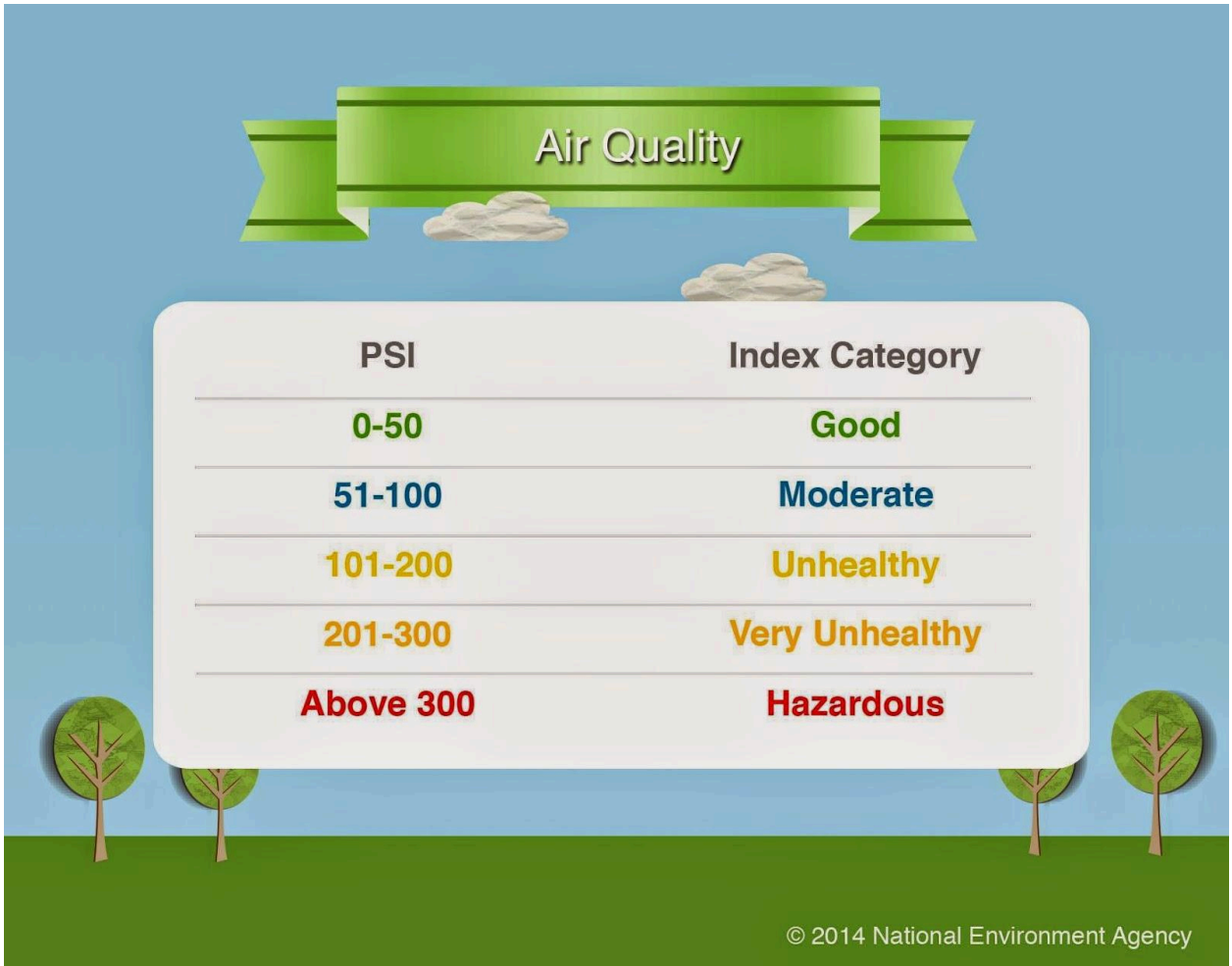


Fig 1.1: PSI levels and corresponding Influence on Public Health from Singapore’s National Environmental Agency (NEA)¹⁸

¹⁸ “PSI to Include PM2.5 Levels From 1 April 2014.” n.d.
<https://ifonlvsingaporeans.blogspot.com/2014/03/psi-to-include-pm25-levels-from-may.html?m=1>.

Key Issues

Diplomatic Tensions

Going past public health and pollution, transboundary pollution can also breed diplomatic tensions, as ASEAN countries often do not take accountability for transboundary pollution due to corruption and economic risks. For example, Malaysia's health ministry has tied haze to forest fires in Indonesia, as Kuala Lumpur, Putrajaya and Negeri Sembilan experienced haze¹⁹, sending a letter complaining about the air quality and asking for both countries to work together to deal with the blazes. However, Indonesia's government had denied that forest and peat fires on Sumatra and Borneo islands were causing the haze in Malaysia²⁰, not only straining relationships between the two countries but also exacerbating the likelihood of a comprehensive cross-country management plan never coming to fruition.

Overall, transboundary pollution poses a threat to the health of both the population and the environment, and threatens both diplomatic relations and the economic stability of millions in the region. Not only will relations between countries be strained by these instances of transboundary pollution, but productivity of individual citizens will also be adversely affected. For example, workers may be unable to continue working in outdoor areas when the PSI is above a designated safe limit, hindering their productivity. Many citizens may also be unwilling to leave their homes and enter outdoor areas, further exacerbating economic losses of industries dependent on human traffic.

¹⁹ *The Straits Times*. 2023. "Malaysia Says Unhealthy Levels of Haze Caused by Fires in Indonesia," September 30, 2023.

<https://www.straitstimes.com/asia/se-asia/haze-at-unhealthy-levels-in-several-areas-in-malaysia>.

²⁰ Associated Press. 2023. "Indonesia Denies Its Fires Causing Haze in Neighboring Malaysia." *Voice of America*, October 7, 2023.

<https://www.voanews.com/a/indonesia-denies-its-fires-causing-haze-in-neighboring-malaysia-/7300701.html>.

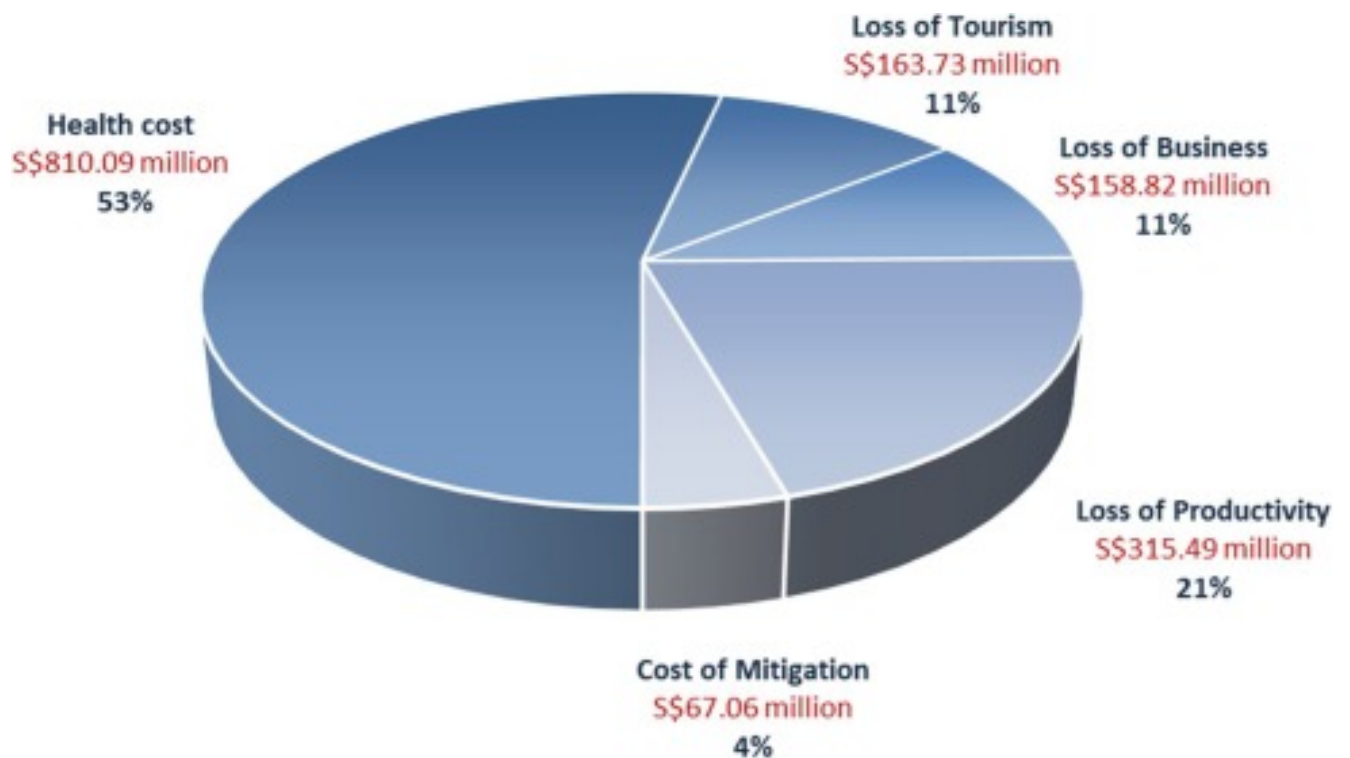


Fig 1.3: Economic impact of 2015 transboundary haze on Singapore

Inability of countries to effectively manage transboundary haze pollution

Despite decades of awareness efforts and regional agreements like the 2002 ASEAN Agreement on Transboundary Haze Pollution, which aimed to prevent and mitigate transboundary haze, transboundary haze persists, a testament to the challenge that this cross-border crisis poses. For example, the agreement entails a policy framework, encouraging member states to develop and coordinate policies such as sustainable agricultural practices and prevention strategies, as well as a monitoring system, which includes fire prone areas and all land/or forest fires²¹. ASEAN countries rely on a patchwork of policies to police the illegal burning hotspots that cause haze, and often lack sufficient resources to carry out effective fire prevention and mitigation efforts. The patchwork includes Transboundary Haze Laws, where countries can take legal action against companies working within the country responsible for emitting haze, and Haze Monitoring units throughout the region, for the most accurate information about any new seasons of haze. These Haze Monitoring units typically use instruments to measure and alert the public when the PSI has

²¹ Asean Agreement on transboundary haze pollution. Accessed February 17, 2024. <https://asean.org/wp-content/uploads/2021/01/ASEANAgreementonTransboundaryHazePollution-1.pdf>.

exceeded a safe limit, as well as coordinate and inform response efforts to the source and intensity of the haze. However, despite the policies asking for greater monitoring efforts towards haze, it is difficult to enforce and implement effectively especially in areas and countries lacking in resources.

Countries such as Indonesia and Malaysia lack sufficient resources to enforce regulations regarding illegal burning and haze. Indonesia's status as an archipelagic nation makes it difficult to dispatch resources to fires in a timely manner. The hotspots are also spread out across a vast area, making it virtually impossible to consolidate resources in a fire-prone area. The vast peatland expanses, particularly in Kalimantan and Sumatra, are also highly susceptible to smouldering fires²² that release pollutants that form haze. The establishment of palm oil plantations has further worsened the issue²³. To establish the plantations, the peatland has to be drained of all moisture, leading to the soil having increased exposure to oxygen, leading to decomposition and breakdown of the peat. The water flow within the plantations is connected to the waterflow of surrounding areas, causing land up to 5km from the plantation to be drained, increasing the risks of wildfires outside the plantations.

However, effectively patrolling and monitoring these sprawling plantations requires an arsenal of resources that Indonesia often lacks. The COVID-19 pandemic has only exacerbated the issue, with funding for haze mitigation cut in half²⁴. Fighting peatland fires also requires specialised training and equipment beyond what is used in conventional wildfires as they typically occur in regions less accessible (like marshes and thick forests) to normal firefighting equipment. The nature of the fire is also different from conventional wildfire²⁵, adding an additional layer of complexity to the already over-stretched fire-fighters. These factors combine to result in an inability to respond to fire hotspots quickly, leading to the fires

²² Hayasaka, Hiroshi. 2023. "Peatland Fire Weather Conditions in Sumatra, Indonesia." *Climate* 11 (5): 92. <https://doi.org/10.3390/cli11050092>.

²³ Roundtable on Sustainable Palm Oil (RSPO). 2017. "The Challenges of Growing Oil Palm on Peatlands." October 29, 2017. <https://rspo.org/the-challenges-of-growing-oil-palm-on-peatlands/>.

²⁴ Narain, Harsh Mahaseth & Aadya. 2022. "The Indonesia Haze and ASEAN's Regional Framework: The Way Ahead." *The Geopolitics*. June 28, 2022. <https://thegeopolitics.com/the-indonesia-haze-and-aseans-regional-framework-the-way-ahead/>.

²⁵ Lim, XiaoZhi. 2016. "Vast Peat Fires Threaten Health and Boost Global Warming." *Scientific American*. July 7, 2016. <https://www.scientificamerican.com/article/vast-peat-fires-threaten-health-and-boost-global-warming/>.

further spreading and worsening the haze pollution. Delegates are suggested to consider innovative methods to quickly respond to the sources of haze to mitigate the damages it causes, which ASEAN can support.

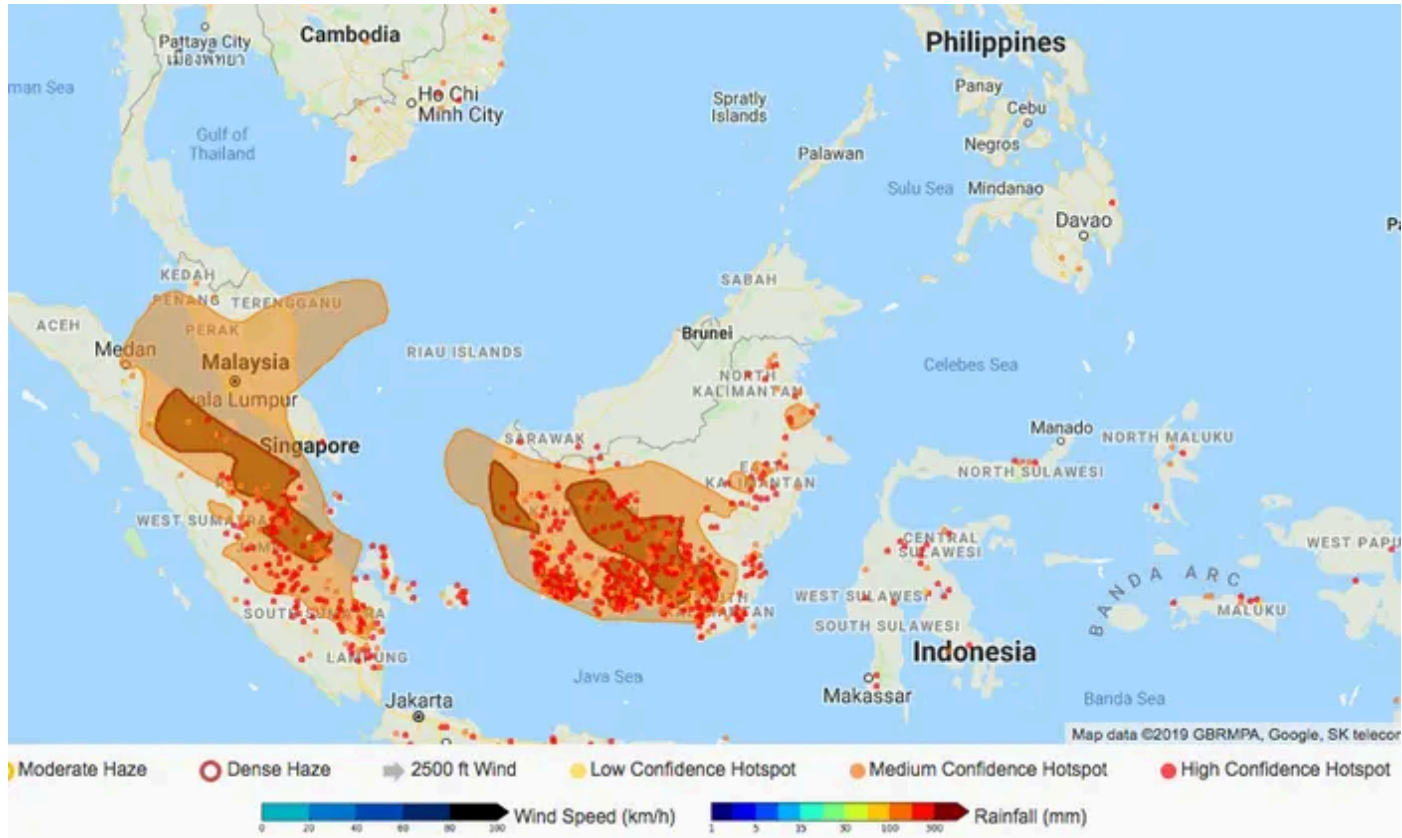


Fig 1.4: Diagram showing fire hotspots and resulting haze in 2019

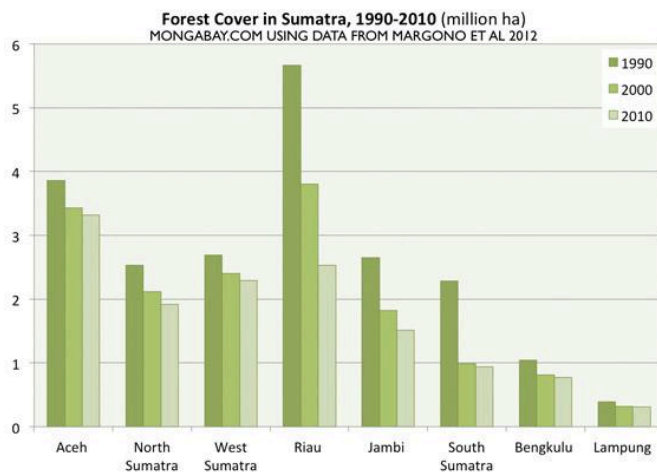
Furthermore, enforcement efforts are also hampered by conflicting interests and corruption. Palm oil forms a significant part of Indonesia’s economy, employing 3 million people, and is 4.5% of Indonesia’s GDP. Any move to tighten regulations against the palm oil industry would likely result in economic losses for Indonesia. The palm oil industry is a lifeline for many communities, providing jobs and livelihoods. Any crackdown on the illegal burning practices could cause palm oil companies to reduce their investment in Indonesia or pull out of Indonesia entirely, putting significant political pressure on the government. However, palm oil companies are among the biggest culprits of the illegal burning that causes the haze. Beyond draining the peatland and increasing the fire risk, palm oil companies have also been known to utilise slash-and-burn techniques to cheaply clear the land. These techniques tend to cause fires that spread and worsen the haze. However, palm oil companies have also bribed state officials to allow them to illegally clear protected land. For many communities, the other

ASEAN countries (ie Singapore, Malaysia and Vietnam) have also criticised²⁶ Indonesia for failing to take sufficient action against the perpetrators of the illegal burning of peatlands, resulting in transboundary pollution. Infrastructure projects which are carried out improperly can also worsen the haze: for example, road and dam construction often disrupt water flow in certain areas otherwise prone to drought, exacerbating their vulnerability to fire. Indonesia's need to balance these conflicting interests has led to perceptions of it being indecisive and unwilling to take drastic measures to solve the issue, while the transboundary haze pollution continues to affect other ASEAN countries.

²⁶ Narain, Harsh Mahaseth & Aadya. 2022. "The Indonesia Haze and ASEAN's Regional Framework: The Way Ahead." The Geopolitics. June 28, 2022. <https://thegeopolitics.com/the-indonesia-haze-and-aseans-regional-framework-the-way-ahead/>.

Scope of Debate

Regulations to manage transboundary haze



²⁷ Fig 1.5: Forest cover in sumatra declining over the years

There are multiple approaches to regulating transboundary haze. Firstly, countries should consider enacting domestic regulation not only criminalising burning practices and making it illegal, but also assigning damages to parties negatively affected by the haze, both domestically and internationally. Some countries already have existing regulations, but they are widely viewed to be insufficient and ineffective. They are insufficient because they only cater to limited scope problems - for example, most of such regulations only focus on reducing haze caused by agricultural practices, and less on natural causes. They are also ineffective, as they lack enforcement mechanisms to deter companies from actually carrying out such polluting activities. Countries should consider tightening regulations on illegal burning and land clearing practices. However, such regulations also carry a severe economic cost, and this economic impact from such a regulations cannot be discounted, and must be carefully balanced with the environmental upsides.

Countries may consider creating an international framework for ASEAN countries to mediate disputes over transboundary haze pollution. However, the implementation and use of this framework to regulate transboundary haze may be difficult for a few reasons. Firstly, considering ASEAN's non interventionist policy, it is difficult to ensure that all countries, especially those guilty of causing transboundary haze pollution, will actually opt into this

²⁷ Butler, Rhett. 2013. "Cause of Haze? Up to 87% of Recent Deforestation in Fire Zone Due to Palm Oil, Timber." Conservation News. June 26, 2013.

<https://news.mongabay.com/2013/06/cause-of-haze-up-to-87-of-recent-deforestation-in-fire-zone-due-to-palm-oil-timber/amp/>.

framework and be willing to accept the mediation of disputes. Secondly, countries may disagree on the specifics of this regulation. For example, some countries might advocate for tighter quotas on transboundary haze as they do not partake in this pollution, whilst other countries might advocate for the opposite as their main industries do produce transboundary haze, and they would like to protect their own national interests. Delegates are encouraged to consider all these issues of regulations when proposing their own solutions.

However, some countries cannot regulate transboundary pollution, due to economic issues (Indonesia and Malaysia), or enforcement capacity issues (Cambodia and Vietnam). Some governments do not favour allocating resources to the management of transboundary pollution, due to the prevalence of other bigger issues within the nation, such as crime. Overlapping land rights and insufficient land use planning can also result in enforcement capacity issues, especially in Cambodia.

Provision of resources required to combat transboundary haze

The main sources of transboundary haze, Indonesia and Malaysia, have been widely acknowledged to lack sufficient resources to take effective enforcement, prevention and mitigation action to stamp out the illegal burning that causes transboundary haze pollution. If ASEAN is to solve the issue of transboundary haze pollution, other member states will likely have to contribute material and financial aid to support efforts to fight the issue.

Given that Indonesia and Malaysia arguably supported the expansion of palm oil production in their territories, some countries may believe that they are chiefly responsible for the haze, and should draw from their own reserves to fund efforts to stamp out the haze. However, ASEAN declarations are non-legally binding, preventing other ASEAN nations from compelling Indonesia and Malaysia to take more action against perpetrators of illegal burning. If countries wish to see the situation improve, they will likely have to step in to contribute resources. Countries should consider how much, if any, they are willing to contribute to these efforts. Considering how corruption is rife in some ASEAN nations, countries should also consider how to ensure that these resources are not misused for individuals' personal benefit.

Indonesia and Malaysia should consider how to best set up mechanisms to use the received aid as effectively as possible, as well as what sort of aid to accept. Delegates should consider whether these countries will accept assistance, as generally such aid will come with conditions compelling the government to a certain course of action in order to ensure its effectiveness and to further their own interests. This may be viewed as an infringement on a nation's sovereignty.

This issue considers protecting the economic interests of citizens of a country while balancing diplomatic relationships with other nations. Even though both countries are affected by the haze, the cost burden of addressing the root issue and mitigating its effects might be huge, considering both money spent to deal with the issue and economic losses from future declines in the agricultural sector. Governments and citizens alike might be reluctant to fund efforts that deal with transboundary pollution, especially since the efforts seem to hurt instead of benefit them. The contention of this issue lies in accountability and responsibility of the haze and coordination within ASEAN to deal with the issue, and delegates should consider the reasons behind the lack of accountability when drafting a resolution.

Key Stakeholders

Countries affected by transboundary haze pollution

Countries which are impacted by transboundary haze pollution are forced to shoulder the socioeconomic costs of the haze alone, with few options for seeking recourse. Countries such as Brunei, Malaysia, Thailand, Philippines and Singapore should consider how best to protect their own citizens' health, as well as their economy, from the impacts of the transboundary haze. However, they should also seek to balance their demands with the need to preserve good diplomatic relations with the perpetrators of the transboundary haze.

Countries that have large scale industries that contribute to transboundary haze pollution

Some countries in ASEAN have a large vested interest in the palm oil and paper industry, with those industries employing a sizable percentage of their population and contributing to their GDP. However, those industries are also chiefly responsible for the transboundary haze as they necessitate the cutting down of trees for plantations. Enforcement agencies in these countries are also often under-equipped to deal with the issue. These countries should seek to gain the resources needed to effectively combat the transboundary haze pollution, while also protecting their own interests, and their citizens' livelihoods.

Private Multinational corporations and Local companies causing haze pollution

Many corporations, such as the Indonesian Palm Oil Association, rely on slash and burn methods to ensure their profitability as a company. For example, it is significantly more cost efficient for these corporations to burn forests to clear land for palm oil plantations, instead of using more environmentally friendly ways of deforestation. Delegates should consider the interests of this stakeholder group, as well as how their profitability will be affected by stringent regulations which delegates may wish to introduce. Delegates should also consider the involvement these companies have with their local economy, and hence consider if these corporations can lobby against decisions to impose further regulations through their government.

Guiding Questions

1. Considering the economic benefits that polluting industries and methods (i.e. land clearing) provide many countries, how can this be balanced with the need to reduce transboundary pollution?
2. Should governments be responsible for the actions of private citizens and companies?
3. How should regulations to combat the production of transboundary haze be enforced?
4. How should countries support and provide each other with the resources needed to enforce these regulations?

Questions a Declaration Must Answer (QADMA)

1. How can ASEAN assist in countries' domestic efforts to combat the effects of transboundary haze pollution?
2. What can ASEAN do to prevent future instances of such transboundary haze pollution?
3. Should, and if so, how can countries be compensated for potential economic losses resulting from the effects of, and combatting, transboundary haze?
4. How should countries that continue to produce transboundary haze in violation of the declaration be dealt with?

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Topic 2: Question of Environmentally Sustainable Economic Development

Topic Introduction

At the turn of the century, of all the problems currently affecting our planet, one singular problem is becoming more serious and more severe. That is the problem faced by our environment. This problem presents itself in a few ways. Firstly, it is that of pollution. Be it air pollution or water pollution, it all causes immense harm to the environment. The second is greenhouse gas emissions, which have been shown to affect heat waves²⁸, sea levels to rise²⁹ and poor weather conditions³⁰, affecting not just the people of ASEAN, but people around the world.

The reason this problem is so severe is because of the continued desires of mankind to develop itself economically, consequentially turning to less economically sustainable methods of development, which allows for the economic growth of a nation at the expense of the environment.

For example, in nations such as Indonesia and Malaysia, there are major issues regarding deforestation for economic expansion. For example, the expansion of palm oil plantations in these nations has led to extensive deforestation³¹, causing severe habitat loss for local endangered species as well as leading to trickle down effects for the environment, such as climate change and soil erosion, just to name a few.

There is also the issue of greenhouse gas emissions due to heavy industrialisation. Some examples would be Vietnam³² and Thailand, where recent economic booms have led to rapid

²⁸ Abnett, Kate. "Explainer: How Climate Change Drives Heatwaves and Wildfires." Reuters, July 21, 2022, sec. Europe.

<https://www.reuters.com/world/europe/how-climate-change-drives-heatwaves-wildfires-2022-07-20/>.

²⁹ US EPA, OAR. "Climate Change Indicators: Oceans." US EPA, June 27, 2016.

<https://www.epa.gov/climate-indicators/oceans#:~:text=Why%20does%20it%20matter%3F>.

³⁰ Hersher, Rebecca. "Climate Change Makes Heat Waves, Storms and Droughts Worse, Climate Report Confirms." NPR, January 9, 2023, sec. Climate.

<https://www.npr.org/2023/01/09/1147805696/climate-change-makes-heat-waves-storms-and-droughts-worse-climate-report-confirms>.

³¹ "What Is Palm Oil? Facts About the Palm Oil Industry." n.d. World Wildlife Fund.

<https://www.worldwildlife.org/industries/palm-oil>.

³² Vietnam's industrial policy designing ... Accessed February 17, 2024.

https://www.undp.org/sites/g/files/zskgke326/files/migration/vn/24721_20925_Industrial_Policy.pdf.

and massive industrialisation, many factories and industrial facilities have been built, emitting gases like methane due to the fossil fuels that many of these factories consume, contributing to greenhouse gas emissions, which would ultimately be detrimental to the environment.

Moreover, another example of this issue concerns the controversial construction of large-scaled hydropower dams in the Mekong river, which despite providing economic benefits, can lead to the destruction of marine life in the process.³³

All these projects are necessary for a nation's economic development, but the question which delegates should consider is: Are there any environmentally sustainable alternatives which can simultaneously protect the environment, as well as allow for the economic growth and prosperity of a country in ASEAN?

General Background

ASEAN is a growing economy. Combined, it is currently the world's 7th largest economy³⁴, predicted to grow into the world's 4th largest by 2050. In the past, such economic growth has generally come from the exploitation of natural resources as well as industrialisation. Unfortunately, such means are generally unsustainable, due to the immense and irreparable harms it inflicts upon the environment. For example, most sources of energy which drives this economic growth comes from burning fossil fuels or other environmentally damaging methods, causing an increase in global temperatures through the emission of greenhouse gases entrapped in the environment, resulting in harms ranging from ice caps melting to increased risk of natural disasters.

Furthermore, as scientists begin predicting when our fossil fuel resources run out, research efforts have been redirected onto developing new methods of capturing energy. ASEAN needs to find more environmentally sustainable means to fuel such growth if it wishes to continue developing further into the future. One possible means is through solar power. The

³³ Roney, Tyler. 2024. "What Are the Impacts of Dams on the Mekong River?" The Third Pole. January 30, 2024.

<https://www.thethirdpole.net/en/energy/what-are-the-impacts-of-dams-on-the-mekong-river/>.

³⁴ "HKTDC Research." n.d.

<https://research.hktdc.com/en/article/Mzk5MzcxNjEz#:~:text=ASEAN%20averaged%20an%20annual%20GDP.%2C%20China%2C%20Japan%20and%20Germany.>

cost of solar power has been decreasing thanks to technological advancements, economies of scale, and more efficient production methods. ASEAN can utilise solar power, especially in countries located near the equator, in order to power its industries and reduce emissions.

Sustainable development is in the spotlight on the international stage, and the UN consolidates these ideas into a set of seventeen sustainable development goals (SDG).³⁵ Out of these goals, SDG 7, concerning the implementation of affordable clean energy and SDG 11, concerning the creation of sustainable cities and communities, are extremely important. SDG 7 focuses on increased accessibility to green energy, as well as the increase in energy efficiency to ensure sustainable and affordable energy access. SDG 11 also focuses on making cities and human settlements sustainable in the long run. With this goal in mind, as well as the increased urgency and necessity for ASEAN to promote sustainable economic growth across all its nations regardless of GDP and geographical location, delegates are encouraged to brainstorm creative solutions which can insure sustainable economic development.

³⁵ “The 17 Goals | Sustainable Development.” n.d. United Nations. United Nations. Accessed February 17, 2024. <https://sdgs.un.org/goals>.

Key Terms and Definitions

Term	Definition
Environmental sustainability	The responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing. ³⁶
Less Developed Countries (henceforth LDCs)	Countries that have low levels of per capita GDP and face severe structural impediments to sustainable development. ³⁷
Climate Change	Long-term shifts in temperature and weather patterns that are environmentally harmful. These shifts occur as a result of greenhouse gas emissions. ³⁸
Fossil fuels	Energy sources such as oil, coal and natural gas that are non-renewable resources. ³⁹ These fuels cause extensive atmospheric pollution when burnt.
Renewable energy	Renewable energy is energy derived from natural sources that are replenished at a higher rate than they are consumed. ⁴⁰ Examples of it include solar energy and

³⁶ Sphera Solutions. 2022. "What Is Environmental Sustainability?" Sphera. October 24, 2022. <https://sphera.com/glossary/what-is-environmental-sustainability/>.

³⁷ United Nations. "Least Developed Countries (LDCs) | Economic Analysis & Policy Division." Development Policy & Analysis Division | Dept of Economic & Social Affairs | United Nations, September 21, 2017. <https://www.un.org/development/desa/dpad/least-developed-country-category.html>.

³⁸ "What Is Climate Change?" Climate Action. United Nations, 2023. <https://www.un.org/en/climatechange/what-is-climate-change>.

³⁹ Department of Energy. "Fossil." Energy.gov, 2023. <https://www.energy.gov/fossil>.

⁴⁰ "What Is Renewable Energy?" United Nations. United Nations, 2023. <https://www.un.org/en/climatechange/what-is-renewable-energy>.

	wind power. ⁴¹
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⁴¹ National Grid. “What Are the Different Types of Renewable Energy? | National Grid Group.”
www.nationalgrid.com, May 10, 2022.
<https://www.nationalgrid.com/stories/energy-explained/what-are-different-types-renewable-energy#:~:text=Renewable%20energy%20is%20energy%20that.>

Key Issues

Economic costs of sustainability

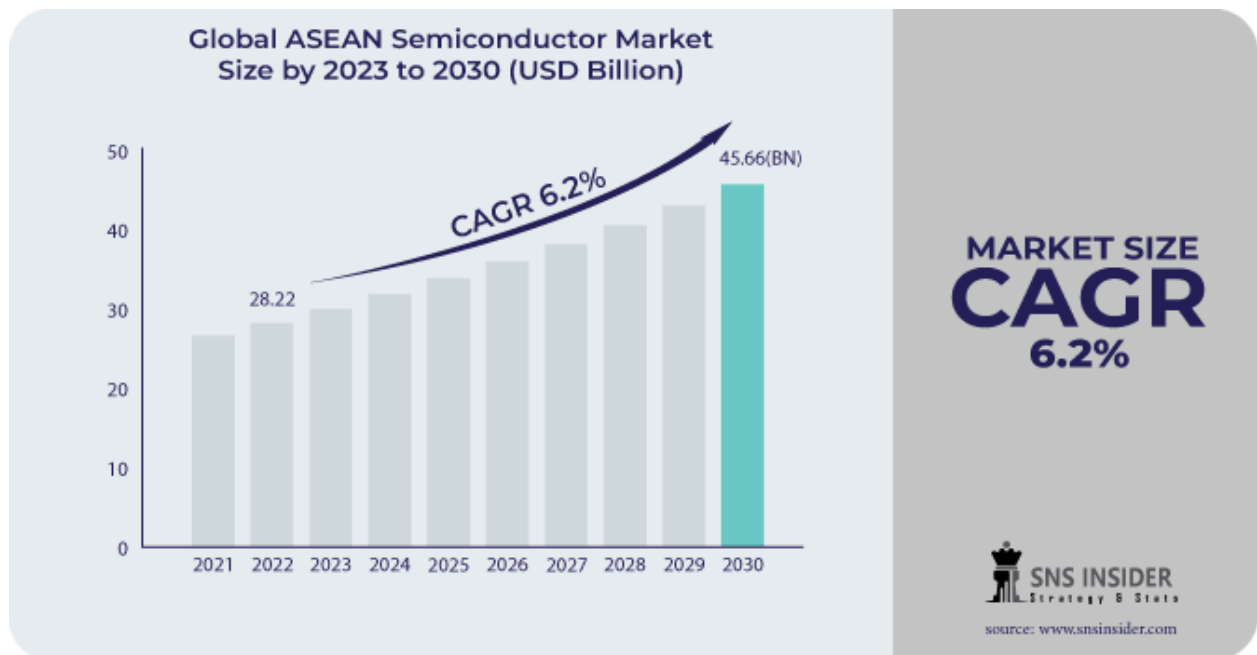


Fig 2.1: The growing semiconductor market⁴²

Currently, Singapore is ASEAN's largest chip producer, while many countries such as Indonesia and Malaysia are large paper producers and Brunei has an economy that is heavily dependent on industry. Unfortunately, while all these are beneficial for a country's economy, the production of Microchips and paper are all relatively energy intensive⁴³, even in the power hungry manufacturing sector.

As a country develops, energy demand increases. While developing countries have less per capita consumption, they currently use more than half the world's energy. And as these nations develop, that demand goes up as people gain purchasing power and industries grow. In the past 15 years, energy demand by developing countries has virtually doubled, and is projected to grow a further 30% as they continue to develop⁴⁴. For ASEAN, with its power

⁴² SNS insider, Strategy and Stats. n.d. "ASEAN Semiconductor Market Size, Growth & Share [2023-2030]." <https://www.snsinsider.com/reports/asean-semiconductor-market-2961>.

⁴³ "Bloomberg - Are You a Robot?" 2022. August 25, 2022. <https://www.bloomberg.com/news/articles/2022-08-25/energy-efficient-computer-chips-need-lots-of-power-to-make>.

⁴⁴ Cgep, Columbia |. 2023. "Energy and Development in a Changing World: A Framework for the 21st Century." Center on Global Energy Policy at Columbia University SIPA | CGEP. January 26, 2023. <https://www.energypolicy.columbia.edu/publications/energy-and-development-changing-world-framework-21st-century/>.

hungry industrial sectors, it will have to ensure their industries and civilian usage of energy are not undermining the environment.

Historically such demand has been met through the extensive use of fossil fuels, the cheapest being coal, which is unfortunately also the dirtiest fossil fuel. Even though countries are moving to be more environmentally friendly, with Singapore meeting 96.4% of its energy needs through natural gas, which is a cleaner fossil fuel, as well as other sustainable sources⁴⁵. However, Singapore is an outlier here, and simply using cleaner fossil fuels is not enough.

Additionally, the paper industry together with agriculture, poses another issue, which is deforestation. Paper is made using lumber of trees, and hence the paper industry is one of the leading causes of deforestation. Indonesia alone is responsible for about 14% of global deforestation⁴⁶. Between 2001 and 2019, SEA has lost around 6100 square kilometres of forest, which is an area larger than Thailand.⁴⁷

Political sentiments surrounding environmentally sustainable development of LDCs

There are perceptions that the West has been somewhat hypocritical in calling for developing nations to forgo economic growth in favour of environmental protection. Countries have pointed out that many Western countries became developed countries during the Industrial revolution by using highly polluting coal and fossil fuels, releasing 2.3 trillion tonnes of carbon dioxide⁴⁸ into the atmosphere. Developing countries such as Laos, Cambodia and Myanmar see their current polluting activities as their own route to becoming a developed country, and feel that it is unfair for them to be denied the same level of cheap industrialisation that Western countries enjoyed.

⁴⁵ ———. 2023b. “Singapore’s Fastest-growing Companies 2023,” December 14, 2023.

<https://www.straitstimes.com/fastest-growing-companies-2023>.

⁴⁶ Lai, Olivia. 2023. “Deforestation in Southeast Asia: Causes and Solutions.” Earth.Org. January 27, 2023. <https://earth.org/deforestation-in-southeast-asia/>.

⁴⁷ “Southeast Asia Community Forestry.” 2024. ClientEarth. February 7, 2024.

<https://www.clientearth.org/projects/southeast-asia-community-forestry/#:~:text=In%20Southeast%20Asia%2C%20deforestation%20is.for%20biodiversity%20and%20forest%20communities>.

⁴⁸ “Carbon Cycle: Definition, Principles and Importance.” 2023. April 28, 2023.

<https://greenly.earth/en-gb/blog/ecology-news/carbon-cycle-definition-principles-and-importance#:~:text=You%20see%2C%20the%20Industrial%20Revolution,released%20into%20the%20Earth's%20atmosphere>.

Furthermore, environmentally-damaging activities such as logging and utilising coal for production require relatively little investment and technology while producing relatively high economic value. Transitioning away from these activities would require an investment in developing the infrastructure needed to support environmentally sustainable economic activities, such as new power plants to support wind turbines and maintenance facilities to ensure these infrastructure are well maintained and up to date. It is also necessary to re-train citizens already accustomed to working in environmentally damaging activities. Such a transition would likely also take years to produce tangible results, as it takes a long time to construct a large scale energy infrastructure and even longer for it to make a return on the original investment when it comes to energy production. While the transition is taking place, citizens would likely experience reduced financial income. With the green movement largely existing around more developed countries, such a move seemingly prioritising the environment over the people could lead to political ramifications for the government, such lesser votes being cast for that particular government. As such, governments may be unwilling to expend political capital on such an issue that most citizens are unaware and indifferent to. In most ASEAN countries, the education level of their citizens is relatively low, making it difficult to convince citizens of the importance of such measures.

In addition, the transition to sustainable development in developing countries faces a critical disincentive: the stark reality of insufficient funding. While the long-term benefits of renewable energy, resource conservation, and green infrastructure are undeniable, the immediate hurdles of upfront costs and infrastructure upgrades loom large. For countries grappling with poverty, food insecurity, and limited healthcare access, they need to rely on these carbon intensive industries to provide for their people and ensure their survival as a nation.

Furthermore, the financial burden of the transition is often unfairly distributed. Developed nations, who historically contributed the most to environmental degradation, provide only a fraction of the necessary funding. According to the latest United Nations Conference on Trade and Development (UNCTAD) report, developing countries require roughly \$1.7 trillion each year to fulfil their renewable energy goals, yet they receive less than a third of that

amount⁴⁹. Without increased aid for countries, there is little impetus for countries to convert to renewable energy.

⁴⁹ “World Investment Report 2023.” 2023. UNCTAD. July 5, 2023.
<https://unctad.org/publication/world-investment-report-2023#:~:text=While%20developing%20countries%20need%20about,about%20%24544%20billion%20in%202022.>

Scope Of Debate

Limitations faced by ASEAN countries in adopting environmentally sustainable practices

The world is pushing towards clean energy sources, and ASEAN hopes to achieve 23% renewables in the primary energy supply by 2025. That would mean the region would need to invest USD 27 Billion into clean energy yearly⁵⁰. However, from 2016 to 2021 no more than 8 Billion USD went into this field in the region.⁵¹

The most efficient and cheapest energy sources today are wind and solar power. While it would be more expensive compared to simply maintaining old power plants, they are competitive with building new power plants. Wind turbines are about 20-40% efficient while solar plants are only about 15-20% efficient. However, all these can come with drawbacks that make adoption by certain countries in ASEAN difficult.

A limitation of Wind energy is the wind shadow effect. It is when turbines rob wind energy from other turbines, leading to an land-energy density (energy produced per unit land) over 100 times lower than estimated and about 10 times less than solar panels. In addition, they cause lots of noise pollution as the turbines turn, and are highly visible, affecting the aesthetics of the landscape. Finally, usually the most effective wind farm positions are far away in remote positions as tall buildings disrupt winds, greatly reducing the effectiveness of wind farms near urban areas.

Together, these issues present a huge challenge to ASEAN countries looking to adopt wind power. Firstly, small nations are largely unable to implement this solution due to the highly urbanised environment and tiny landmass limiting its effectiveness. With tourism being a

⁵⁰ Satyanegara, Hartina Hiromi. 2023. "ASEAN's Energy Transition: How to Attract More Investment in Renewable Energy." ASEAN Climate Change and Energy Project (ACCEPT). February 23, 2023. <https://accept.aseanenergy.org/aseans-energy-transition-how-to-attract-more-investment-in-renewable-energy/>.

⁵¹ ———. 2023b. "ASEAN's Energy Transition: How to Attract More Investment in Renewable Energy." ASEAN Climate Change and Energy Project (ACCEPT). February 23, 2023. <https://accept.aseanenergy.org/aseans-energy-transition-how-to-attract-more-investment-in-renewable-energy/#:~:text=To%20achieve%20ASEAN's%20target%20of.annually%20from%202016%20to%202021.>

large part of small nations and island nations' economies, the aesthetic cost can be ill afforded. Next, island nations would have difficulty coordinating large government efforts. That means that building and regularly maintaining such farms(once every 6 months) at scale would be difficult.

Hence, countries like Singapore are looking to use solar power to replace its energy supply. Both because of its low carbon footprint, relatively high energy to landmas ratio, and reduced aesthetic impact on its landscape. Despite competitive prices similar to that of a regular fossil fuel power plant, making the switch to solar will still take large investments to build new infrastructure; replacing fossil fuel plants will still mean additional costs. This means that ASEAN will need to work together by thinking of a long term economic plan such as loans to help such nations make the switch.

Key Stakeholders

Countries where economic growth comes with environmental trade-offs

Countries such as Indonesia and Malaysia, rely on deforestation for palm oil, pulp and paper production which helps a sizable percentage of their population and contributes to their GDP. This is usually not because of malice, but rather because these nations have little to no choice for alternative sources of GDP in the status quo. However, environmental damage might cause some health problems for citizens but the governments are also often under-equipped to deal with the issue. For example, tourism in Vietnam has caused coastal erosion through construction of tourist infrastructure that makes the areas more vulnerable to storm surges and rising sea levels. These countries should seek to establish a compromise to maintain good relations, while also protecting their own interests, industry, and their citizens' livelihoods.

Countries largely impacted by climate change from environmental damage

Some countries are disproportionately impacted by climate change. For example, coastal communities feel more pinch from rising sea levels. Countries can face pollution from the monsoons, wind direction or tidal currents to bring pollution to their country. Countries' rivers could be polluted by other nations upstream. While such effects may not arise from the receiving nation's policies, the receiving nation will have to grapple with the impacts caused. Countries such as Cambodia, Philippines and Singapore should consider possible diplomatic remedies to this unequal sharing of cost. They should fight for their citizens' health and well-being as well as their environment. However, they should also seek to balance their demands with the need to preserve good diplomatic relations with the perpetrators and economic development within ASEAN.

Guiding Questions

1. Should short term economic development be prioritised over long term environmental sustainability?
2. How can the current investments your country is making in economic development be augmented and led towards **sustainable** economic development?
3. How can the transition to environmentally sustainable practices be more smoothly implemented?

Questions a Declaration Must Answer (QADMA)

1. Whose responsibility is it to protect the environment in different parts of ASEAN and the world?
2. How can AMME ensure equitable access to environmentally sustainable methods of development?
3. How can ASEAN's various sectors, such as the economic sectors, service sectors, manufacturing sectors and agricultural sectors, support each other in the transition to sustainable economic development?
4. Should, and if so, how much aid should countries provide to each other to aid their transition to sustainable economic development?

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